# Electronic Transmittal Form for DEEP Remediation and LUST Secure File Transfer (SFT)

DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
REMEDIATION DIVISION
LEAKING UNDERGROUND STORAGE TANK COORDINATION PROGRAM
www.ct.gov/deep

This Electronic Transmittal Form is to be used when submitting a document to the Connecticut SFT website. This form must be completed and included as the cover sheet of your electronic document.

Requirements for Transmittals through the SFT website:

- Only document types identified in Part III below may be submitted through the SFT website.
- Documents submitted through the SFT website must include all applicable figures, tables and laboratory data.
- Files must be formatted as PDF/A and use the appropriate naming convention:
  - For Remediation Filings: **REM_RemID_DocumentType_DateofDocument**
    **Example:** REM_1234_MonitoringReport_01-01-2001
  - For LUST Filings: **LUST_SiteAddress_Town_AbbreviationForDocumentType_DateofDocument**
    **Example:** LUST_1MainStreet_Hartford_ESA_01-01-2001
    **Note:** For AbbreviationForDocumentType" use appropriate abbreviation on page 2 of this form

## Part I: Program Type (Select either Remediation or LUST as your Primary Program Type)

| | |
|---|---|
| ☒ Remediation<br>Primary Program: Voluntary Remediation Program<br>*Rem ID: 13334 (required) | ☐ LUST<br>UST Facility ID: (if applicable)<br>Spill Case Number: (if known) |

## Part II: Site Information

Site Name: Greenwich High School

Site Address: 10 Hillside Road

City/Town: Greenwich State: CT Zip Code: 06830

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

| | |
|---|---|
| Program: Select a Program | Project ID: |
| 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: 7/24/2019

## Part IV: Submitter Information

Name: Matthew Rood **E-mail: matthew.rood@aecom.com

**By providing this e-mail address you are agreeing to receive official correspondence from the department, at this electronic address, concerning the subject document. Please remember to check your security settings to be sure you can receive e-mails from "ct.gov" addresses. Also, please notify the department if your e-mail address changes.

Name of company/business this document is being submitted on behalf of: Town of Greenwich

AECOM
500 Enterprise Drive
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July 24, 2019

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

**Annual Progress Report**
**Greenwich High School**
**10 Hillside Road**
**Greenwich, Connecticut**
**Remediation ID No. 13334**

Dear Mr. Wilcox

On behalf of the Town of Greenwich (the Town), AECOM is submitting this Annual Progress report for the above referenced property (the site). In May 2017, the Town submitted an Environmental Condition Assessment Form (ECAF) to the Connecticut Department of Energy and Environmental Protection (CT DEEP) requesting enrollment of the site into the CT DEEP Voluntary Remediation Program (VRP) under Connecticut General Statutes (CGS) §22a-133x. The CT DEEP issued an Acknowledgement of Receipt of the ECAF (CT DEEP letter to the Town dated July 18, 2017) and assigned Remediation ID No. 13334 for the site. In accordance with the CT DEEP acknowledgement letter, the Town submitted a proposed site investigation and remediation schedule on October 12, 2017.

Annual progress reports are required to be submitted in July of each year. This letter report documents activities conducted between June 1, 2018 and May 31, 2019 (the reporting period).

## Summary of Activities

The following activities were performed during this reporting period:

1. Quarterly groundwater monitoring was performed in June, September and December 2018 and April 2019. September 2018 and April 2019 groundwater monitoring events also included the sampling of turf field drainage outfall locations downgradient of Field 3 and upgradient of Field 4. Sampling results are summarized herein.
2. A portion of synthetic turf impacted by polychlorinated biphenyls (PCBs) was removed in October 2018. A summary of remediation activities was provided in a Focused Remedial Action Update submitted to the US EPA and CT DEEP on January 28, 2019.
3. Submittal of an Artificial Turf Field and Site Hydrogeologic Investigation Report in March 2019.
4. Submittal of a Completion of Investigation Report in May 2019.
5. Submittal of an Interim Remedial Action Plan (IRAP) in May 2019.
6. Submittal of an Application for Engineered Control (EC) Variance in May 2019.

The following sections provide a summary of groundwater monitoring activities conducted, along with available results.

# Groundwater Monitoring Summary

During this reporting period, AECOM performed groundwater monitoring in June, September and December 2018 and in April 2019. In June 2018, deep groundwater monitoring well MW-AH16D was installed at the site. This monitoring well was first sampled in August 2018. In December 2018, four shallow groundwater monitoring wells were installed at the site: MW-D4, MW-H29, MW-N22, and MW-U20. The addition of these wells increased the monitoring well network to 39 wells. Sampling results for these wells are included in the April 2019 data sets. Boring logs and well construction diagrams for the new wells are provided in **Appendix A**.

Groundwater monitoring was performed by following low-flow sampling protocols using a peristaltic pump and dedicated polyethylene tubing, as detailed in the Remedial Investigation (RI) Report (AECOM, 2013). Water quality readings were collected during purging until parameters were considered stable, and then a sample was collected into the appropriate containers for transport to the laboratory. Samples were analyzed for the following constituents:

- PCBs as homologs by SW-846 Method 680;
- Polycyclic aromatic hydrocarbons (PAHs) by SW-846 Method 8270;
- Connecticut 15 Metals by SW-846 Methods 6010/7470;
- Volatile Organic Compounds (VOCs) by SW-846 Methods 8260;
- Extractable Total Petroleum Hydrocarbons (ETPH) by Method CT ETPH; and
- Pesticides by SW-846 by Method 8081.

## Analytical Results

A groundwater data summary table is provided as **Table 1**. Groundwater results were compared to the CT DEEP Remediation Standard Regulations (RSRs) Groundwater Protection Criteria (GWPC) and Surface Water Protection Criteria (SWPC). Results are discussed below, and laboratory analytical reports are provided on disk in **Appendix B**.

Groundwater samples were analyzed by Con-test Analytical Laboratories, a Connecticut Department of Public Health approved laboratory. All samples collected were analyzed following Connecticut Reasonable Confidence Protocols. While some deviations from RCP quality control standards were noted, these deviations do not affect the usability of the data. Data were flagged as estimated values, where appropriate, consistent with USEPA data validation guidance. The results are usable as reported for evaluating groundwater concentrations at the site and making comparisons to applicable RSR criteria. Data usability evaluation worksheets are presented in **Appendix C.**

### Polychlorinated Biphenyls (PCBs)

Groundwater samples were collected for PCB analysis from each well sampled during the June, September, and December 2018 monitoring event. For the April 2019 sampling event, the number of monitoring wells sampled for PCB analysis was reduced based on an evaluation of historical sample results. Samples were analyzed for PCB homologs via EPA Method 680.

PCB concentrations were reported above the SWPC and GWPC in each of the groundwater samples collected from wells MW-AA12, MW-AH16R, MW-AJ13, and MW-Y15. No groundwater sample was collected from well MW-AA12 in September 2018, because it went dry during purging. Groundwater samples collected from deep monitoring well MW-AJ13D during two monitoring events exceeded criteria. Groundwater samples collected from monitoring well MW-AG10 and MW-AM16 exceeded criteria during one monitoring event. All other groundwater sampling results were below the GWPC and SWPC.

Based on groundwater results obtained during the last four monitoring events, PCB concentrations above regulatory criteria in groundwater continue to be located within AOC 1. This is consistent with previous groundwater results.

Turf field drainage outfall locations were sampled for PCBs in September 2018 and April 2019. Results for outfall sampling are included in **Table 1**. PCBs were detected in each outfall sample collected during these sampling events. The concentrations reported in the sample collected from the outfall downgradient of Field 3 during the April 2019 event were above 0.5 micrograms per liter (ug/L), which is the TSCA decontamination standard for unrestricted use of water and the CT DEEP GWPC and SWPC. While the outfall sample is not a conventional groundwater sample, the SWPC applies to groundwater and the point of discharge to surface water, and thus the SWPC is provided as a reference point. Field conditions documented during the outfall sampling noted that the sample was collected from a weak trickle flowing from the outfall pipe. The sample was collected during a period of relatively shallow water table

conditions following a day with approximately ¾ of an inch of rain. The Town will continue to evaluate water quality flowing from the outfall pipes during routine sampling events and, when flow is present, collect samples for analysis.

### Polycyclic Aromatic Hydrocarbons (PAHs)

Groundwater samples from select wells were analyzed for PAHs via EPA Method SW-846 8270D (SIM) during each monitoring event. PAHs were detected in samples collected from monitoring wells MW-AA12, MW-AH16R, MW-S15, and MW-Y15. Groundwater concentrations detected were below the GWPC and SWPC for all PAHs, except phenanthrene. Phenanthrene was detected at concentrations above the 1996 SWPC in samples collected from monitoring well MW-Y15 on multiple occasions. However, CT DEEP has issued a recommended alternative criterion for phenanthrene, and none of the groundwater analytical results were above this alternate criterion for phenanthrene.

### Metals

Groundwater samples from select wells were analyzed for metals during each monitoring period. Antimony, arsenic, barium, beryllium, chromium, copper, lead, nickel, thallium, vanadium, and zinc were detected in one or more groundwater samples. Concentrations of metals above RSR criteria occurred most frequently in samples collected from monitoring wells MW-35, MW-AH16R, and MW-AJ13. Exceedances of RSR criteria are summarized below.

- Antimony and barium were detected at concentrations exceeding the GWPC in one groundwater sample collected from monitoring well MW-Y9. Monitoring well MW-Y9 is located within AOC 1.
- Barium was detected at concentrations above the GWPC in one sample collected from monitoring well MW-X17. Monitoring well MW-X17 is located within AOC 1.
- Arsenic was found to exceed the SWPC in groundwater samples collected from monitoring wells MW-35, MW-AH16R, MW-AJ13, MW-H29, MW-S15, and MW-Y9. Monitoring well MW-35 is located at the southeast corner of the property, and well MW-H29 is located within AOC 8, near Cider Mill Pond. Elevated arsenic concentrations at monitoring well MW-H29 may be a result of naturally occurring arsenic mobilized in the reducing conditions observed during low-flow testing. Monitoring wells MW-AH16R, MW-AJ13, MW-S15, and MW-Y9 are located within AOC 1.
- Lead concentrations exceeded the SWPC and GWPC in groundwater samples collected from monitoring well MW-35.
- Zinc concentrations exceeded the SWPC in groundwater samples collected from monitoring wells MW-AA12 and MW-AJ13.

Historical and recent results for metals in groundwater have indicated that exceedances of RSR criteria are generally identified in samples collected from within AOC 1, the area associated with the fill material. Intermittent detections have been observed in wells outside of the fill.

### Volatile Organic Compounds (VOCs)

Groundwater samples from select monitoring wells were analyzed for VOCs via EPA Method SW-846 8260C in the December 2018 and April 2019 sampling events. Tetrachloroethylene (PCE) was detected at concentrations below applicable RSR criteria in one sample collected from monitoring well MW-35, and 1,2,4-trimethylbenzene was detected at concentrations below applicable RSR criteria in one sample collected from monitoring well MW-AH16R. No other VOCs were detected during these sampling events.

### Extractable Total Petroleum Hydrocarbons (ETPH)

Groundwater samples from select monitoring wells were analyzed for ETPH during the December 2018 and April 2019 sampling events. ETPH was detected at concentrations exceeding the GWPC in groundwater samples collected from monitoring wells MW-AH16R, MW-Y15, and MW-Y9. These wells are all located within the AOC 1 fill area.

## Groundwater Elevation Monitoring

During each groundwater monitoring event, synoptic groundwater elevation monitoring was conducted. **Figures 1 and 2** depict interpreted shallow and deep groundwater elevation contours for the April 2019 gauging event.

The groundwater elevation data generated during these monitoring periods continue to show shallow groundwater flowing onto the Site from the east and flowing off-site towards the southeast, in the area of where West Brothers Brook discharges from the site. There is also radial flow from the area of Fields #2 and #3 toward West Brothers Brook. These data are generally consistent with previous results.

There is a downward component to the hydraulic gradient from the shallow overburden to the deep overburden in the center of the fields, where deep overburden wells are installed in the locally thicker overburden aquifer. However, this gradient is expressed over a silt and peat unit that is typically approximately 5 feet thick and limits the potential for vertical groundwater flow.

The groundwater elevation data generated from deep monitoring wells indicates a flatter groundwater gradient in the deep overburden with a generally south-southeasterly gradient. The overall pattern of data suggest groundwater flow from topographically higher areas to the north and northwest, likely driven by a combination of overburden flow and bedrock discharge, and upwelling and discharge to shallow overburden and surface water near the southern portion of Field #2.

## Future Groundwater Monitoring Activities

AECOM will continue groundwater monitoring at the site to evaluate for compliance with applicable criteria as well as plan for remedial actions to address RSR criteria exceedances in soil. It is anticipated that groundwater monitoring for VOCs will be discontinued during future monitoring events, as the existing groundwater dataset indicate compliance with all applicable groundwater criteria for VOCs.

Please contact the undersigned with any questions pertaining to this project.

Regards,

Patrick Haskell, LEP, CHMM.
Technical Leader
AECOM

Michael Doherty, P.E.
Associate Vice President
AECOM

**Enclosures:**

| | |
|---|---|
| Table 1 | Groundwater Analytical Data |
| Figure 1 | April 2019 Shallow Groundwater Contours |
| Figure 2 | April 2019 Deep Groundwater Contours |
| Appendix A | Soil Boring and Monitoring Well Logs |
| Appendix B | Laboratory Analytical Reports |
| Appendix C | Data Usability Evaluation Worksheets |

**cc:** Amy Siebert, Town of Greenwich, Department of Public Works
Daniel Watson, Town of Greenwich, Board of Education
Kim Tisa, EPA
Gary Trombly, CTDEEP
Peter Hill, CTDEEP
Jane Warren, McCarter & English, LLP

### References:

AECOM, 2013. Remedial Investigation Report. Greenwich High School. Greenwich, CT. AECOM. February 2013.

CT DEEP, 2017. Technical support document: Recommended numeric criteria for common additional polluting substances and certain alternative criteria. CT DEEP. Revised January 27, 2017.

## Table

# Table 1
## Groundwater Analytical Data

**Greenwich High School**
**10 Hillside Road**
**Greenwich, Connecticut**

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-28<br>MW-28-062918-1<br>6/29/2018<br>18G0022 | MW-28<br>MW-28-092818-1<br>9/28/2018<br>18I1338 | MW-28<br>MW-28-121018-1<br>12/10/2018<br>18L0420 | MW-28<br>MW-28-041519-1<br>4/15/2019<br>19D0788 | MW-35<br>MW-35-062918-1<br>6/29/2018<br>18G0022 | MW-35<br>MW-35-092818-1<br>9/28/2018<br>18I1338/GCB61089 | MW-35<br>MW-35-121018-1<br>12/10/2018<br>18L0420 | MW-35<br>MW-35-041519-1<br>4/15/2019<br>19D0788 | MW-AA12<br>MW-AA12-062718-1<br>6/27/2018<br>18F1460 | MW-AA12<br>MW-AA12-121318-1<br>12/13/2018<br>18L0663 | MW-AA12<br>MW-AA12-041819-1<br>4/18/2019<br>19D0971 | MW-AA12D<br>MW-AA12D-062618-1<br>6/26/2018<br>18F1321 | MW-AA12D<br>MW-AA12D-092618-1<br>9/26/2018<br>18I1195 | MW-AA12D<br>MW-AA12D-121218-1<br>12/12/2018<br>18L0583 | MW-AA12D<br>MW-AA12D-041819-1<br>4/18/2019<br>19D0971 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | **76** | < 150 | NA | NA | **130** | NA | NA | NA | NA | NA | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | < 0.50 | < 0.50 | NA | NA | < 1.0 | < 0.50 | NA | NA | < 0.50 | NA | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | NA | NA | < 1.0 | < 1.0 | NA | NA | **2.4** | < 1.0 | NA | NA | < 1.0 | NA | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | < 0.05 | < 0.05 | < 1.1 | < 1.0 | < 0.05 | < 0.05 | < 0.97 | < 1.0 | < 0.05 | NA | NA | NA | NA | NA | NA |
| Acenaphthene | NE | NE | < 0.05 | < 0.05 | < 0.32 | < 0.30 | < 0.05 | < 0.05 | < 0.29 | < 0.31 | **0.62** | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | < 0.05 | < 0.05 | < 0.21 | < 0.20 | < 0.05 | < 0.05 | < 0.19 | < 0.21 | **0.05** | NA | NA | NA | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | < 0.05 | < 0.05 | < 0.21 | < 0.20 | < 0.05 | < 0.05 | < 0.19 | < 0.21 | **0.07** | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | < 0.05 | < 0.05 | < 0.053 | < 0.050 | < 0.05 | < 0.05 | < 0.049 | < 0.052 | **0.05** | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | < 0.05 | < 0.05 | < 0.053 | < 0.050 | < 0.05 | < 0.05 | < 0.049 | < 0.052 | **0.05** | NA | NA | NA | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | < 0.05 | < 0.05 | < 0.53 | < 0.50 | < 0.05 | < 0.05 | < 0.49 | < 0.52 | < 0.05 | NA | NA | NA | NA | NA | NA |
| Chrysene | NE | NE | < 0.05 | < 0.05 | < 0.21 | < 0.20 | < 0.05 | < 0.05 | < 0.19 | < 0.21 | **0.06** | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | < 0.01 | < 0.01 | < 0.11 | < 0.10 | < 0.01 | < 0.01 | < 0.097 | < 0.10 | < 0.01 | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 280 | 3700 | < 0.05 | < 0.05 | < 0.53 | < 0.50 | < 0.05 | < 0.05 | < 0.49 | < 0.52 | **0.18** | NA | NA | NA | NA | NA | NA |
| Fluorene | 280 | 140000 | < 0.05 | < 0.05 | < 1.1 | < 1.0 | < 0.05 | < 0.05 | < 0.97 | < 1.0 | **0.34** | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | < 0.05 | < 0.05 | < 0.11 | < 0.10 | < 0.05 | < 0.05 | < 0.097 | < 0.10 | < 0.05 | NA | NA | NA | NA | NA | NA |
| naphthalene | 280 | NE | < 0.10 | < 0.09 | < 1.1 | < 1.0 | < 0.10 | < 0.10 | < 0.97 | < 1.0 | **0.18** | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | < 0.05 | < 0.05 | < 0.053 | < 0.050 | < 0.05 | < 0.05 | < 0.049 | < 0.052 | **0.07** | NA | NA | NA | NA | NA | NA |
| Pyrene | 200 | 110000 | < 0.05 | < 0.05 | < 1.1 | < 1.0 | < 0.05 | < 0.05 | < 0.97 | < 1.0 | **0.10** | NA | NA | NA | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | < 5 | < 5 | < 5.0 | < 1.0 | < 5 | < 5 | < 5.0 | < 1.0 | < 5 | NA | < 1.0 | NA | NA | NA | NA |
| Arsenic | 50 | 4 | < 4 | < 4 | < 2.0 | **0.83** | < 4 | **15** | **8.7** | **2.9** | < 4 | NA | **0.97** | NA | NA | NA | NA |
| Barium | 1000 | NE | **64** | **68** | **87** | **45** | **568** | **201** | **80** | **160** | **780** | NA | **220** | NA | NA | NA | NA |
| Beryllium | 4 | 4 | < 1 | < 1 | < 2.0 | < 0.40 | < 1 | **1** | < 2.0 | < 0.40 | < 1 | NA | < 0.40 | NA | NA | NA | NA |
| Chromium | 50 | NE | < 1 | < 1 | < 5.0 | < 1.0 | < 1 | **6** | **5.7** | **2.0** | < 1 | NA | < 1.0 | NA | NA | NA | NA |
| Copper | 1300 | 48 | < 5 | < 5 | < 25 | < 5.0 | < 5 | **48** | **44** | **11** | < 5 | NA | < 5.0 | NA | NA | NA | NA |
| Lead | 15 | 13 | < 2 | < 2 | < 5.0 | < 1.0 | < 2 | **30** | **22** | **29** | < 2 | NA | **1.8** | NA | NA | NA | NA |
| Nickel | 100 | 880 | < 1 | < 1 | < 25 | < 5.0 | **6** | **12** | < 25 | < 5.0 | **2** | NA | < 5.0 | NA | NA | NA | NA |
| Thallium | 5 | 63 | < 1 | < 1 | < 1.0 | < 0.20 | < 1 | < 1 | < 1.0 | **0.35** | < 0.5 | NA | < 0.20 | NA | NA | NA | NA |
| Vanadium | 50 | NE | < 2 | < 2 | < 25 | < 5.0 | < 2 | **16** | < 25 | **5.6** | < 2 | NA | < 5.0 | NA | NA | NA | NA |
| Zinc | 5000 | 123 | **3** | < 4 | < 50 | < 10 | < 2 | **9** | < 50 | **24** | **206** | NA | **840** | NA | NA | NA | NA |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | ND | ND | ND | NA | ND | NA | ND | NA | NA | NA | NA | NA | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.0010 | < 0.00096 | < 0.0011 | < 0.00097 | < 0.0010 | < 0.00098 | < 0.00099 | < 0.00098 | **0.046** | **0.0079** | **0.0097** | < 0.0010 | **0.0012** | < 0.00098 | < 0.0010 |
| Dichlorobiphenyl | NE | NE | < 0.0010 | < 0.00096 | < 0.0011 | < 0.00097 | < 0.0010 | < 0.00098 | < 0.00099 | < 0.00098 | **0.96** | **0.42** | **0.28** | **0.0080** | **0.013** | **0.0075** | **0.0056** |
| Trichlorobiphenyl | NE | NE | < 0.0010 | < 0.00096 | < 0.0011 | < 0.00097 | < 0.0010 | < 0.00098 | < 0.00099 | < 0.00098 | **0.63** | **0.39** | **0.35** | **0.012** | **0.086** | **0.018** | **0.016** |
| Tetrachlorobiphenyl | NE | NE | < 0.0020 | < 0.0019 | < 0.0021 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | **0.26** | **0.10** | **0.12** | **0.015** | **0.14** | **0.026** | **0.024** |
| Pentachlorobiphenyl | NE | NE | < 0.0020 | < 0.0019 | < 0.0021 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | **0.054** | **0.014** | **0.016** | < 0.0020 | **0.043** | **0.0045** | **0.0042** |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0019 | < 0.0021 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | **0.0055** | < 0.0020 | < 0.0020 | < 0.0020 | **0.0030** | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0051 | < 0.0048 | < 0.0053 | < 0.0049 | < 0.0051 | < 0.0049 | < 0.0050 | < 0.0049 | < 0.0051 | < 0.0051 | < 0.0051 | < 0.0050 | < 0.0050 | < 0.0049 | < 0.0051 |
| Total PCB Homologues | 0.5 | 0.5 | < 0.0051 | ND | ND | ND | < 0.0051 | ND | ND | ND | **1.9555** | **0.94** | **0.77** | **0.035** | **0.28** | **0.056** | **0.050** |

**Notes:**
This is a summary table. Only detected compounds are presented.
**Bold = Detected above reporting limit**
**Orange highlighted cells exceed GWPC.**
**Yellow highlighted cells exceed SWPC.**
<0.01 = Not detected above the specified laboratory reporting limit
GWPC = Ground water protection criteria
SWPC = Surface water protection criteria
NE = Criterion has not been established
NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent
mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

# Table 1
## Groundwater Analytical Data

**Greenwich High School**
**10 Hillside Road**
**Greenwich, Connecticut**

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-AA19<br>MW-AA19-062918-1<br>6/29/2018<br>18G0022 | MW-AA19<br>MW-AA19-092518-1<br>9/25/2018<br>18I1109 | MW-AA19<br>MW-AA19-121318-1<br>12/13/2018<br>18L0663 | MW-AE8<br>MW-AE8-062718-1<br>6/27/2018<br>18F1384 | MW-AE8<br>MW-AE8-092618-1<br>9/26/2018<br>18I1195 | MW-AE8<br>MW-AE8-121318-41<br>12/13/2018<br>18L0663 | MW-AE8<br>MW-AE8-041719-1<br>4/17/2019<br>19D0928 | MW-AG10<br>MW-AG10-062718-1<br>6/27/2018<br>18F1383 | MW-AG10<br>MW-AG10-092718-1<br>9/27/2018<br>18I1258 | MW-AG10<br>MW-AG10-121118-1<br>12/11/2018<br>18L0484 | MW-AG10<br>MW-AG10-041819-1<br>4/18/2019<br>19D0971 | MW-AG30<br>MW-AG30-062718-1<br>6/27/2018<br>18F1384 | MW-AG30<br>MW-AG30-092718-1<br>9/27/2018<br>18I1258 | MW-AG30<br>MW-AG30-121218-1<br>12/12/2018<br>18L0583 | MW-AG30<br>MW-AG30-041719-1<br>4/17/2019<br>19D0928 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | NA | NA | NA | **85** | < 160 | NA | NA | NA | NA | NA | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | NA | NA | NA | < 1.0 | < 0.50 | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | NA | NA | NA | NA | NA | < 2.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | NA | NA | NA | < 0.05 | < 0.05 | < 0.98 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthene | NE | NE | NA | NA | NA | < 0.05 | < 0.05 | < 0.29 | < 0.31 | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.21 | NA | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.21 | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | NA | NA | NA | < 0.05 | < 0.05 | < 0.049 | < 0.052 | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | NA | NA | NA | < 0.05 | < 0.05 | < 0.049 | < 0.052 | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | NA | NA | NA | < 0.05 | < 0.05 | < 0.49 | < 0.52 | NA | NA | NA | NA | NA | NA | NA | NA |
| Chrysene | NE | NE | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.21 | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | NA | NA | NA | < 0.01 | < 0.01 | < 0.098 | < 0.10 | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 280 | 3700 | NA | NA | NA | < 0.05 | < 0.05 | < 0.49 | < 0.52 | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluorene | 280 | 140000 | NA | NA | NA | < 0.05 | < 0.05 | < 0.98 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | NA | NA | NA | < 0.05 | < 0.05 | < 0.098 | < 0.10 | NA | NA | NA | NA | NA | NA | NA | NA |
| naphthalene | 280 | NE | NA | NA | NA | < 0.10 | < 0.09 | < 0.98 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | NA | NA | NA | < 0.05 | < 0.05 | < 0.049 | < 0.052 | NA | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | 200 | 110000 | NA | NA | NA | < 0.05 | < 0.05 | < 0.98 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | NA | NA | NA | < 5 | < 5 | < 5.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 50 | 4 | NA | NA | NA | < 4 | < 4 | < 2.0 | **0.86** | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 1000 | NE | NA | NA | NA | **140** | **105** | **110** | **68** | NA | NA | NA | NA | NA | NA | NA | NA |
| Beryllium | 4 | 4 | NA | NA | NA | < 1 | < 1 | < 2.0 | < 0.40 | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 50 | NE | NA | NA | NA | **1** | < 1 | < 5.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | 1300 | 48 | NA | NA | NA | **6** | **14** | < 25 | **28** | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 15 | 13 | NA | NA | NA | < 2 | < 2 | < 5.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | 100 | 880 | NA | NA | NA | **3** | **3** | < 25 | < 5.0 | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | 5 | 63 | NA | NA | NA | < 0.5 | < 0.5 | < 1.0 | < 0.20 | NA | NA | NA | NA | NA | NA | NA | NA |
| Vanadium | 50 | NE | NA | NA | NA | **3** | **3** | < 25 | **5.7** | NA | NA | NA | NA | NA | NA | NA | NA |
| Zinc | 5000 | 123 | NA | NA | NA | **4** | **7** | < 50 | < 10 | NA | NA | NA | NA | NA | NA | NA | NA |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.0010 | **0.0011** | < 0.0010 | < 0.0010 | **0.0034** | < 0.0010 | **0.0042** | **0.0061** | **0.024** | **0.018** | **0.0098** | < 0.0010 | < 0.0012 | **0.0015** | < 0.0010 |
| Dichlorobiphenyl | NE | NE | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 | **0.0049** | < 0.0010 | **0.0060** | **0.048** | **0.25** | **0.14** | **0.085** | < 0.0010 | < 0.0012 | < 0.0010 | **0.0018** |
| Trichlorobiphenyl | NE | NE | < 0.0010 | < 0.0010 | < 0.0010 | **0.0039** | **0.013** | **0.0074** | **0.0087** | **0.030** | **0.12** | **0.051** | **0.036** | < 0.0010 | < 0.0012 | < 0.0010 | < 0.0010 |
| Tetrachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0020 | **0.025** | **0.048** | **0.035** | **0.028** | **0.027** | **0.11** | **0.035** | **0.026** | < 0.0020 | **0.0039** | < 0.0020 | < 0.0020 |
| Pentachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0020 | **0.0083** | **0.0085** | **0.013** | **0.0031** | **0.0040** | **0.016** | **0.0023** | < 0.0019 | < 0.0020 | **0.0065** | < 0.0020 | < 0.0020 |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0021 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | **0.0044** | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0050 | < 0.0050 | < 0.0051 | < 0.0050 | < 0.0050 | < 0.0052 | < 0.0052 | < 0.0049 | < 0.0050 | < 0.0049 | < 0.0049 | < 0.0050 | < 0.0062 | < 0.0050 | < 0.0051 |
| Total PCB Homologues | 0.5 | 0.5 | < 0.0050 | **0.0011** | ND | **0.0372** | **0.077** | **0.055** | **0.050** | **0.1151** | **0.52** | **0.25** | **0.16** | < 0.0050 | **0.015** | **0.0015** | **0.0018** |

**Notes:**
This is a summary table. Only detected compounds are presented.
**Bold = Detected above reporting limit**
**Orange highlighted cells exceed GWPC.**
**Yellow highlighted cells exceed SWPC.**
<0.01 = Not detected above the specified laboratory reporting limit
GWPC = Ground water protection criteria
SWPC = Surface water protection criteria
NE = Criterion has not been established
NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent
mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

# Table 1
## Groundwater Analytical Data

**Greenwich High School**
**10 Hillside Road**
**Greenwich, Connecticut**

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-AH16D<br>MW-AH-16D<br>8/24/2018<br>18H1261 | MW-AH16D<br>MW-AH160-092718-1<br>9/27/2018<br>18I1258 | MW-AH16D<br>MW-AH16D-121218-1<br>12/12/2018<br>18L0583 | MW-AH16D<br>MW-AH16D-041619-1<br>4/16/2019<br>19D0862 | MW-AH16R<br>MW-AH16R-062818-1<br>6/28/2018<br>18F1460 | MW-AH16R<br>MW-AH16R-092718-1<br>9/27/2018<br>18I1258 | MW-AH16R<br>MW-AH16R-121218-1<br>12/12/2018<br>18L0583 | MW-AH16R<br>MW-AH16R-041619-1<br>4/16/2019<br>19D0862 | MW-AJ13<br>MW-AJ13-062718-1<br>6/27/2018<br>GCA79842 | MW-AJ13<br>MW-AJ13-092718-1<br>9/27/2018<br>18I1258 | MW-AJ13<br>MW-AJ13-121218-1<br>12/12/2018<br>18L0583 | MW-AJ13<br>MW-AJ13-041819-1<br>4/18/2019<br>19D0971 | MW-AJ13D<br>MW-AJ13D-067218-1<br>6/27/2018<br>18F1384 | MW-AJ13D<br>MW-AJ13D-092718-1<br>9/27/2018<br>18I1258 | MW-AJ13D<br>MW-AJ13D-121218-1<br>12/12/2018<br>18L0583 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | NA | NA | NA | NA | **420** | **1500** | NA | NA | **190** | **200** | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | NA | NA | NA | NA | < 1.0 | **1.2** | NA | NA | < 0.50 | < 0.50 | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | NA | NA | NA | NA | NA | NA | < 2.0 | < 1.0 | NA | NA | < 1.0 | < 1.0 | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | NA | NA | NA | NA | **0.16** | **0.22** | < 1.0 | < 1.0 | < 0.05 | < 0.05 | < 1.0 | < 1.0 | NA | NA | NA |
| Acenaphthene | NE | NE | NA | NA | NA | NA | **0.55** | **0.46** | < 0.30 | **0.47** | < 0.05 | < 0.05 | < 0.30 | < 0.30 | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.20 | < 0.05 | < 0.05 | < 0.20 | < 0.20 | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | NA | NA | NA | NA | **0.09** | **0.05** | < 0.20 | < 0.20 | < 0.05 | < 0.05 | < 0.20 | < 0.20 | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.05 | < 0.05 | < 0.050 | < 0.051 | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.05 | < 0.05 | < 0.050 | < 0.051 | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.50 | < 0.50 | < 0.05 | < 0.05 | < 0.50 | < 0.51 | NA | NA | NA |
| Chrysene | NE | NE | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.20 | < 0.05 | < 0.05 | < 0.20 | < 0.20 | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | NA | NA | NA | NA | < 0.01 | < 0.01 | < 0.10 | < 0.10 | < 0.01 | < 0.01 | < 0.10 | < 0.10 | NA | NA | NA |
| Fluoranthene | 280 | 3700 | NA | NA | NA | NA | **0.08** | < 0.05 | < 0.50 | < 0.50 | < 0.05 | < 0.05 | < 0.50 | < 0.51 | NA | NA | NA |
| Fluorene | 280 | 140000 | NA | NA | NA | NA | **0.34** | **0.29** | < 1.0 | < 1.0 | < 0.05 | < 0.05 | < 1.0 | < 1.0 | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.10 | < 0.10 | < 0.05 | < 0.05 | < 0.10 | < 0.10 | NA | NA | NA |
| naphthalene | 280 | NE | NA | NA | NA | NA | **0.37** | **0.31** | **1.0** | < 1.0 | < 0.10 | < 0.09 | < 1.0 | < 1.0 | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.050 | < 0.050 | < 0.05 | < 0.05 | < 0.050 | < 0.051 | NA | NA | NA |
| Pyrene | 200 | 110000 | NA | NA | NA | NA | **0.06** | < 0.05 | < 1.0 | < 1.0 | < 0.05 | < 0.05 | < 1.0 | < 1.0 | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | NA | NA | NA | NA | < 5 | < 5 | < 5.0 | < 1.0 | < 5 | < 5 | < 5.0 | < 1.0 | NA | NA | NA |
| Arsenic | 50 | 4 | NA | NA | NA | NA | **6** | **7** | **4.4** | **3.9** | **20** | < 4 | **7.4** | **1.2** | NA | NA | NA |
| Barium | 1000 | NE | NA | NA | NA | NA | **988** | **429** | **180** | **480** | **58** | **37** | **80** | **50** | NA | NA | NA |
| Beryllium | 4 | 4 | NA | NA | NA | NA | < 1 | < 1 | < 2.0 | < 0.40 | < 1 | < 1 | < 2.0 | < 0.40 | NA | NA | NA |
| Chromium | 50 | NE | NA | NA | NA | NA | **4** | **2** | < 5.0 | < 1.0 | **1** | < 1 | < 5.0 | < 1.0 | NA | NA | NA |
| Copper | 1300 | 48 | NA | NA | NA | NA | < 5 | < 5 | < 25 | < 5.0 | < 5 | < 5 | < 25 | < 5.0 | NA | NA | NA |
| Lead | 15 | 13 | NA | NA | NA | NA | < 2 | < 2 | < 5.0 | < 1.0 | < 2 | < 2 | < 5.0 | < 1.0 | NA | NA | NA |
| Nickel | 100 | 880 | NA | NA | NA | NA | **2** | **5** | < 25 | **5.7** | **6** | **7** | < 25 | < 5.0 | NA | NA | NA |
| Thallium | 5 | 63 | NA | NA | NA | NA | < 0.5 | < 1 | < 1.0 | < 0.20 | < 0.5 | < 0.5 | < 1.0 | < 0.20 | NA | NA | NA |
| Vanadium | 50 | NE | NA | NA | NA | NA | **5** | **5** | < 25 | < 5.0 | **5** | < 2 | < 25 | < 5.0 | NA | NA | NA |
| Zinc | 5000 | 123 | NA | NA | NA | NA | **29** | **24** | < 50 | **30** | **1660** | **3690** | **4000** | **4000** | NA | NA | NA |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | **0.049** | **0.031** | **0.0052** | **0.0035** | **5.6** | **7.4** | **3.4** | **12** | < 0.0010 | **0.0036** | **0.0056** | < 0.00098 | **0.076** | **0.0032** | **0.029** |
| Dichlorobiphenyl | NE | NE | **0.14** | **0.10** | **0.012** | **0.0060** | **6.9** | **6.3** | **2.0** | **6.1** | **0.41** | **0.47** | **0.30** | **0.12** | **0.42** | **0.045** | **0.21** |
| Trichlorobiphenyl | NE | NE | **0.051** | **0.057** | **0.0077** | **0.0029** | **1.5** | **1.1** | **0.47** | **0.34** | **1.7** | **2.6** | **1.9** | **1.2** | **0.24** | **0.036** | **0.31** |
| Tetrachlorobiphenyl | NE | NE | **0.0062** | **0.024** | **0.0054** | < 0.0020 | **0.30** | **0.33** | **0.17** | **0.087** | **0.41** | **0.66** | **0.44** | **0.36** | **0.038** | **0.015** | **0.10** |
| Pentachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | **0.033** | **0.047** | **0.018** | **0.011** | **0.052** | **0.071** | **0.049** | **0.052** | **0.0064** | **0.010** | **0.026** |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | **0.0050** | **0.0047** | < 0.0020 | < 0.0019 | < 0.0020 | **0.0036** | < 0.0020 | **0.0036** | < 0.0020 | **0.0025** | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0049 | < 0.0050 | < 0.0050 | **6.1** | < 0.0049 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0049 | < 0.0050 | < 0.0050 | < 0.0050 |
| Total PCB Homologues | 0.5 | 0.5 | **0.1952** | **0.22** | **0.030** | **0.012** | **14.338** | **15** | **12.158** | **19** | **2.572** | **3.8** | **2.7** | **1.7** | **0.7804** | **0.11** | **0.67** |

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NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
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(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
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# Table 1
## Groundwater Analytical Data

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-AJ13D<br>MW-AJ13D-041819-1<br>4/18/2019<br>19D0971 | MW-AJ19<br>MW-AJ19-062718-1<br>6/27/2018<br>18F1384 | MW-AJ19<br>MW-AJ19-092718-1<br>9/27/2018<br>18I1338 | MW-AJ19<br>MW-AJ19-121118-1<br>12/11/2018<br>18L0484 | MW-AJ19<br>MW-AJ19-041619-1<br>4/16/2019<br>19D0862 | MW-AL10<br>MW-AL10-062718-1<br>6/27/2018<br>18F1384 | MW-AL10<br>MW-AL10-092618-1<br>9/26/2018<br>18I1195 | MW-AL10<br>MW-AL10-121118-1<br>12/11/2018<br>18L0484 | MW-AL10<br>MW-AL10-041719-1<br>4/17/2019<br>19D0928 | MW-AM16<br>MW-AM16-062818-1<br>6/28/2018<br>18F1460 | MW-AM16<br>MW-AM16R-092718-1<br>9/27/2018<br>18I1258 | MW-AM16<br>MW-AM16-121118-1<br>12/11/2018<br>18L0484 | MW-AM16<br>MW-AM16-041819-1<br>4/18/2019<br>19D0971 | MW-AM16D<br>MW-AM16D-062718-1<br>6/27/2018<br>18F1384 | MW-AM16D<br>MW-AM16D-092718-1<br>9/27/2018<br>18I1258 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chrysene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 280 | 3700 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluorene | 280 | 140000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| naphthalene | 280 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | 200 | 110000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 50 | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 1000 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Beryllium | 4 | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 50 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | 1300 | 48 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 15 | 13 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | 100 | 880 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | 5 | 63 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Vanadium | 50 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Zinc | 5000 | 123 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | ND | ND | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.0010 | < 0.00098 | < 0.00091 | < 0.0010 | < 0.00097 | < 0.0010 | < 0.0010 | < 0.00098 | **0.0079** | **0.0068** | **0.010** | < 0.00097 | < 0.00098 | < 0.0010 | < 0.0010 |
| Dichlorobiphenyl | NE | NE | **0.024** | < 0.00098 | < 0.00091 | < 0.0010 | < 0.00097 | < 0.0010 | < 0.0010 | < 0.00098 | **0.0098** | **0.017** | **0.10** | **0.0034** | **0.0019** | **0.0011** | < 0.0010 |
| Trichlorobiphenyl | NE | NE | **0.026** | < 0.00098 | **0.0087** | **0.016** | **0.0071** | < 0.0010 | < 0.0010 | < 0.00098 | **0.0011** | **0.027** | **0.19** | **0.023** | **0.0061** | < 0.0010 | **0.0050** |
| Tetrachlorobiphenyl | NE | NE | **0.0081** | **0.0026** | **0.019** | **0.033** | **0.011** | < 0.0020 | **0.0025** | **0.0061** | **0.0077** | **0.047** | **0.20** | **0.031** | **0.013** | **0.0021** | **0.015** |
| Pentachlorobiphenyl | NE | NE | **0.0038** | < 0.0020 | **0.0039** | **0.010** | **0.0026** | < 0.0020 | < 0.0020 | < 0.0020 | **0.0040** | **0.0073** | **0.028** | **0.0050** | < 0.0020 | < 0.0020 | **0.0025** |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0018 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0050 | < 0.0049 | < 0.0045 | < 0.0051 | < 0.0049 | < 0.0050 | < 0.0050 | < 0.0049 | < 0.0052 | < 0.0050 | < 0.0051 | < 0.0049 | < 0.0049 | < 0.0050 | < 0.0050 |
| Total PCB Homologues | 0.5 | 0.5 | **0.062** | **0.0026** | **0.031** | **0.060** | **0.021** | < 0.0050 | **0.0025** | **0.0061** | **0.030** | **0.1051** | **0.54** | **0.062** | **0.021** | **0.0032** | **0.022** |

**Notes:**
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GWPC = Ground water protection criteria
SWPC = Surface water protection criteria
NE = Criterion has not been established
NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent
mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

# Table 1
## Groundwater Analytical Data

**Greenwich High School**
**10 Hillside Road**
**Greenwich, Connecticut**

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-AM16D<br>MW-AM16D-121118-1<br>12/11/2018<br>18L0484 | MW-AM16D<br>MW-AM16D-041819-1<br>4/18/2019<br>19D0971 | MW-AM21<br>MW-AM21-062718-1<br>6/27/2018<br>18F1383 | MW-AM21<br>MW-AM21-092718-1<br>9/27/2018<br>18I1338 | MW-AM21<br>MW-AM21-121118-1<br>12/11/2018<br>18L0484 | MW-AP11<br>MW-AP11-092618-1<br>9/26/2018<br>18I1195 | MW-AP11<br>MW-AP11-121118-1<br>12/11/2018<br>18L0484 | MW-AP11<br>MW-AP11-041719-1<br>4/17/2019<br>19D0928 | MW-AP28<br>MW-AP28-062718-1<br>6/27/2018<br>18F1384 | MW-AP28<br>MW-AP28-092718-1<br>9/27/2018<br>18I1258 | MW-AP28<br>MW-AP28-121018-1<br>12/10/2018<br>18L0420 | MW-AV17<br>MW-AV17-062718-1<br>6/27/2018<br>18F1384 | MW-AV17<br>MW-AV17-092718-1<br>9/27/2018<br>18I1258 | MW-AV17<br>MW-AV17-121118-1<br>12/11/2018<br>18L0484 | MW-AV17<br>MW-AV17-041819-1<br>4/18/2019<br>19D0971 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chrysene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 280 | 3700 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluorene | 280 | 140000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| naphthalene | 280 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | 200 | 110000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 50 | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 1000 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Beryllium | 4 | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 50 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | 1300 | 48 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 15 | 13 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | 100 | 880 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | 5 | 63 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Vanadium | 50 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Zinc | 5000 | 123 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | ND | ND |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.00098 | < 0.00098 | < 0.0010 | < 0.00098 | < 0.0010 | < 0.0010 | < 0.00098 | **0.0017** | **0.0029** | < 0.0010 | < 0.00099 | < 0.0010 | < 0.0010 | < 0.00099 | < 0.00098 |
| Dichlorobiphenyl | NE | NE | < 0.00098 | < 0.00098 | **0.0015** | < 0.00098 | < 0.0010 | **0.0017** | < 0.00098 | **0.0035** | **0.0029** | < 0.0010 | < 0.00099 | < 0.0010 | < 0.0010 | < 0.00099 | < 0.00098 |
| Trichlorobiphenyl | NE | NE | **0.0020** | **0.0028** | **0.0010** | < 0.00098 | < 0.0010 | < 0.0010 | **0.0011** | **0.0011** | < 0.00098 | < 0.0010 | < 0.00099 | < 0.0010 | < 0.0010 | < 0.00099 | < 0.00098 |
| Tetrachlorobiphenyl | NE | NE | **0.0068** | **0.011** | **0.0038** | **0.029** | **0.027** | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | **0.0063** | < 0.0020 | < 0.0020 |
| Pentachlorobiphenyl | NE | NE | < 0.0020 | **0.0023** | < 0.0020 | **0.012** | **0.011** | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0049 | < 0.0049 | < 0.0050 | < 0.0049 | < 0.0051 | < 0.0050 | < 0.0049 | < 0.0051 | < 0.0049 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0049 |
| Total PCB Homologues | 0.5 | 0.5 | **0.0088** | **0.016** | **0.0063** | **0.041** | **0.038** | **0.0017** | **0.0011** | **0.0064** | **0.0058** | ND | ND | < 0.0050 | **0.0063** | ND | ND |

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mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

# Table 1
## Groundwater Analytical Data

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-D4<br>MW-D4-041519-1<br>4/15/2019<br>19D0788 | MW-F35<br>MW-F35-062918-1<br>6/29/2018<br>18G0022 | MW-F35<br>MW-F35-092818-1<br>9/28/2018<br>18I1338 | MW-F35<br>MW-F35-121018-1<br>12/10/2018<br>18L0420 | MW-H29<br>MW-H29-041519-1<br>4/15/2019<br>19D0788 | MW-L25<br>MW-L25-062818-1<br>6/28/2018<br>18F1460 | MW-L25<br>MW-L25-092818-1<br>9/28/2018<br>18I1338 | MW-L25<br>MW-L25-121118-1<br>12/11/2018<br>18L0484 | MW-N22<br>MW-N22-041619-1<br>4/16/2019<br>19D0862 | MW-P11<br>MW-P11-062818-1<br>6/28/2018<br>18F1460 | MW-P11<br>MW-P11-092518-1<br>9/25/2018<br>18I1109 | MW-P11<br>MW-P11-121318-1<br>12/13/2018<br>18L0663 | MW-P7<br>MW-P7-062818-1<br>6/28/2018<br>18F1460 | MW-P7<br>MW-P7-092518-1<br>9/25/2018<br>18I1109 | MW-P7<br>MW-P7-121318-1<br>12/13/2018<br>18L0663 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | < 150 | NA | NA | NA | **210** | NA | NA | NA | < 150 | NA | NA | NA | NA | NA | < 77 |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | < 0.50 | NA | NA | NA | < 0.50 | NA | NA | NA | < 0.50 | NA | NA | NA | NA | NA | < 0.50 |
| Tetrachloroethylene | 5 | 88 | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | NA | NA | < 1.0 |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 0.05 | < 0.05 | < 1.0 |
| Acenaphthene | NE | NE | < 0.31 | NA | NA | NA | < 0.30 | NA | NA | NA | < 0.30 | NA | NA | NA | < 0.05 | < 0.05 | < 0.30 |
| Acenaphthylene | 420 | 0.3 | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 |
| Anthracene | 2000 | 1.1e+006 | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 |
| Benzo(a)anthracene | 0.06 | 0.3 | < 0.051 | NA | NA | NA | < 0.050 | NA | NA | NA | < 0.050 | NA | NA | NA | < 0.05 | < 0.05 | < 0.050 |
| Benzo(b)fluoranthene | 0.08 | 0.3 | < 0.051 | NA | NA | NA | < 0.050 | NA | NA | NA | < 0.050 | NA | NA | NA | < 0.05 | < 0.05 | < 0.050 |
| Benzo(g,h,i)perylene | NE | NE | < 0.51 | NA | NA | NA | < 0.50 | NA | NA | NA | < 0.50 | NA | NA | NA | < 0.05 | < 0.05 | < 0.50 |
| Chrysene | NE | NE | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 |
| Dibenzo(a,h)anthracene | NE | NE | < 0.10 | NA | NA | NA | < 0.10 | NA | NA | NA | < 0.10 | NA | NA | NA | < 0.01 | < 0.01 | < 0.10 |
| Fluoranthene | 280 | 3700 | < 0.51 | NA | NA | NA | < 0.50 | NA | NA | NA | < 0.50 | NA | NA | NA | < 0.05 | < 0.05 | < 0.50 |
| Fluorene | 280 | 140000 | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 0.05 | < 0.05 | < 1.0 |
| Indeno(1,2,3-cd)pyrene | NE | NE | < 0.10 | NA | NA | NA | < 0.10 | NA | NA | NA | < 0.10 | NA | NA | NA | < 0.05 | < 0.05 | < 0.10 |
| naphthalene | 280 | NE | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 0.10 | < 0.09 | < 1.0 |
| Phenanthrene | 200 | 0.077 | < 0.051 | NA | NA | NA | < 0.050 | NA | NA | NA | < 0.050 | NA | NA | NA | < 0.05 | < 0.05 | < 0.050 |
| Pyrene | 200 | 110000 | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 0.05 | < 0.05 | < 1.0 |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | < 5 | < 5 | < 5.0 |
| Arsenic | 50 | 4 | **0.58** | NA | NA | NA | **14** | NA | NA | NA | **0.49** | NA | NA | NA | < 4 | < 4 | < 2.0 |
| Barium | 1000 | NE | **210** | NA | NA | NA | **330** | NA | NA | NA | **72** | NA | NA | NA | **143** | **145** | **140** |
| Beryllium | 4 | 4 | < 0.40 | NA | NA | NA | < 0.40 | NA | NA | NA | < 0.40 | NA | NA | NA | < 1 | < 1 | < 2.0 |
| Chromium | 50 | NE | < 1.0 | NA | NA | NA | **1.5** | NA | NA | NA | < 1.0 | NA | NA | NA | < 1 | < 1 | < 5.0 |
| Copper | 1300 | 48 | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | < 5 | < 5 | < 25 |
| Lead | 15 | 13 | < 1.0 | NA | NA | NA | **1.3** | NA | NA | NA | < 1.0 | NA | NA | NA | < 2 | < 2 | < 5.0 |
| Nickel | 100 | 880 | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | **1** | **3** | < 25 |
| Thallium | 5 | 63 | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | < 0.5 | < 0.5 | < 1.0 |
| Vanadium | 50 | NE | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | < 2 | < 2 | < 25 |
| Zinc | 5000 | 123 | < 10 | NA | NA | NA | < 10 | NA | NA | NA | < 10 | NA | NA | NA | < 2 | **10** | < 50 |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | ND | ND | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.00096 | < 0.0010 | **0.0011** | NA | < 0.00098 | < 0.0010 | < 0.00095 | < 0.0010 | **0.0034** | **0.0013** | < 0.00094 | < 0.0010 | **0.0013** | < 0.0010 | < 0.0010 |
| Dichlorobiphenyl | NE | NE | < 0.00096 | < 0.0010 | **0.0056** | NA | **0.0022** | < 0.0010 | < 0.00095 | < 0.0010 | **0.0023** | **0.0030** | < 0.00094 | < 0.0010 | **0.0027** | < 0.0010 | < 0.0010 |
| Trichlorobiphenyl | NE | NE | < 0.00096 | < 0.0010 | **0.0062** | NA | < 0.00098 | < 0.0010 | < 0.00095 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.00094 | < 0.0010 | < 0.0010 | < 0.0010 | < 0.0010 |
| Tetrachlorobiphenyl | NE | NE | < 0.0019 | < 0.0020 | < 0.0018 | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0019 | < 0.0021 | < 0.0020 | < 0.0020 | < 0.0020 |
| Pentachlorobiphenyl | NE | NE | < 0.0019 | < 0.0020 | < 0.0018 | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0019 | < 0.0021 | < 0.0020 | < 0.0020 | < 0.0020 |
| Hexachlorobiphenyl | NE | NE | < 0.0019 | < 0.0020 | < 0.0018 | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0019 | < 0.0021 | < 0.0020 | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0048 | < 0.0051 | < 0.0045 | NA | < 0.0049 | < 0.0050 | < 0.0048 | < 0.0051 | < 0.0051 | < 0.0052 | < 0.0047 | < 0.0052 | < 0.0051 | < 0.0050 | < 0.0051 |
| Total PCB Homologues | 0.5 | 0.5 | ND | < 0.0051 | **0.013** | NA | **0.0022** | < 0.0050 | ND | ND | **0.0058** | **0.0043** | ND | ND | **0.004** | ND | ND |

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NE = Criterion has not been established
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# Table 1
## Groundwater Analytical Data

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-P7<br>MW-P7-041619-1<br>4/16/2019<br>19D0862 | MW-R20<br>MW-R20-062818-1<br>6/28/2018<br>18F1461 | MW-R20<br>MW-R20-062818-2<br>6/28/2018<br>18F1461 | MW-R20<br>MW-R20-092818-1<br>9/28/2018<br>18I1338 | MW-R20<br>MW-R20-092818-2<br>9/28/2018<br>18I1338 | MW-R20<br>MW-R20-121118-1<br>12/11/2018<br>18L0484 | MW-R20<br>MW-R20-121118-2<br>12/11/2018<br>18L0484 | MW-S15<br>MW-S15 092518-1<br>9/25/2018<br>GCB38518 | MW-S15<br>MW-S15 092518-2<br>9/25/2018<br>GCB38518 | MW-S15<br>MW-S15-062818-1<br>6/28/2018<br>18F1460 | MW-S15<br>MW-S15-062818-2<br>6/28/2018<br>18F1460 | MW-S15<br>MW-S15-092518-1<br>9/25/2018<br>18I1109 | MW-S15<br>MW-S15-092518-2<br>9/25/2018<br>18I1109 | MW-S15<br>MW-S15-121318-1<br>12/13/2018<br>18L0663 | MW-S15<br>MW-S15-121318-2<br>12/13/2018<br>18L0663 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | < 160 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | **110** | **100** |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | < 0.50 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.50 | < 0.50 |
| Tetrachloroethylene | 5 | 88 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 1.0 | < 1.0 |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | < 1.0 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 1.0 | < 1.0 |
| Acenaphthene | NE | NE | < 0.30 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.30 | < 0.31 |
| Acenaphthylene | 420 | 0.3 | < 0.20 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.20 | < 0.21 |
| Anthracene | 2000 | 1.1e+006 | < 0.20 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.20 | < 0.21 |
| Benzo(a)anthracene | 0.06 | 0.3 | < 0.050 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.050 | < 0.052 |
| Benzo(b)fluoranthene | 0.08 | 0.3 | < 0.050 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.050 | < 0.052 |
| Benzo(g,h,i)perylene | NE | NE | < 0.50 | NA | NA | NA | NA | NA | NA | **0.19** | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.50 | < 0.52 |
| Chrysene | NE | NE | < 0.20 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.20 | < 0.21 |
| Dibenzo(a,h)anthracene | NE | NE | < 0.10 | NA | NA | NA | NA | NA | NA | **0.13** | < 0.01 | < 0.01 | < 0.01 | NA | NA | < 0.10 | < 0.10 |
| Fluoranthene | 280 | 3700 | < 0.50 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.50 | < 0.52 |
| Fluorene | 280 | 140000 | < 1.0 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 1.0 | < 1.0 |
| Indeno(1,2,3-cd)pyrene | NE | NE | < 0.10 | NA | NA | NA | NA | NA | NA | **0.18** | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.10 | < 0.10 |
| naphthalene | 280 | NE | < 1.0 | NA | NA | NA | NA | NA | NA | < 0.09 | < 0.09 | < 0.10 | < 0.10 | NA | NA | < 1.0 | < 1.0 |
| Phenanthrene | 200 | 0.077 | < 0.050 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 0.050 | < 0.052 |
| Pyrene | 200 | 110000 | < 1.0 | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.05 | < 0.05 | NA | NA | < 1.0 | < 1.0 |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | < 1.0 | NA | NA | NA | NA | NA | NA | < 5 | < 5 | < 5 | < 5 | NA | NA | < 5.0 | < 5.0 |
| Arsenic | 50 | 4 | **0.78** | NA | NA | NA | NA | NA | NA | **7** | **6** | < 4 | < 4 | NA | NA | < 2.0 | < 2.0 |
| Barium | 1000 | NE | **66** | NA | NA | NA | NA | NA | NA | **134** | **132** | **122** | **123** | NA | NA | **150** | **150** |
| Beryllium | 4 | 4 | < 0.40 | NA | NA | NA | NA | NA | NA | < 1 | < 1 | < 1 | < 1 | NA | NA | < 2.0 | < 2.0 |
| Chromium | 50 | NE | < 1.0 | NA | NA | NA | NA | NA | NA | **2** | **1** | **1** | **1** | NA | NA | < 5.0 | < 5.0 |
| Copper | 1300 | 48 | < 5.0 | NA | NA | NA | NA | NA | NA | < 5 | < 5 | < 5 | < 5 | NA | NA | < 25 | < 25 |
| Lead | 15 | 13 | < 1.0 | NA | NA | NA | NA | NA | NA | < 2 | < 2 | < 2 | < 2 | NA | NA | < 5.0 | < 5.0 |
| Nickel | 100 | 880 | < 5.0 | NA | NA | NA | NA | NA | NA | < 1 | < 1 | < 1 | < 1 | NA | NA | < 25 | < 25 |
| Thallium | 5 | 63 | < 0.20 | NA | NA | NA | NA | NA | NA | < 0.5 | < 0.5 | < 0.5 | < 0.5 | NA | NA | < 1.0 | < 1.0 |
| Vanadium | 50 | NE | < 5.0 | NA | NA | NA | NA | NA | NA | **4** | **4** | **3** | **3** | NA | NA | < 25 | < 25 |
| Zinc | 5000 | 123 | < 10 | NA | NA | NA | NA | NA | NA | < 4 | < 4 | < 2 | < 2 | NA | NA | < 50 | < 50 |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | NA | NA | NA | NA | ND | ND | NA | NA | NA | NA | ND | ND |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | NA | < 0.0010 | < 0.0010 | < 0.00095 | < 0.0010 | < 0.0010 | < 0.0010 | NA | NA | < 0.0010 | **0.0042** | < 0.00095 | < 0.00092 | < 0.0010 | < 0.0010 |
| Dichlorobiphenyl | NE | NE | NA | < 0.0010 | < 0.0010 | < 0.00095 | < 0.0010 | < 0.0010 | < 0.0010 | NA | NA | **0.0049** | **0.0088** | **0.0036** | **0.0071** | **0.0043** | **0.0047** |
| Trichlorobiphenyl | NE | NE | NA | < 0.0010 | < 0.0010 | < 0.00095 | < 0.0010 | < 0.0010 | < 0.0010 | NA | NA | **0.013** | **0.014** | **0.017** | **0.016** | **0.015** | **0.015** |
| Tetrachlorobiphenyl | NE | NE | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | NA | NA | **0.015** | **0.015** | **0.018** | **0.024** | **0.017** | **0.013** |
| Pentachlorobiphenyl | NE | NE | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | NA | NA | < 0.0020 | **0.0032** | **0.0027** | **0.0027** | **0.0030** | < 0.0021 |
| Hexachlorobiphenyl | NE | NE | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | NA | NA | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0018 | < 0.0021 | < 0.0021 |
| Decachlorobiphenyl (PCB-209) | NE | NE | NA | < 0.0051 | < 0.0051 | < 0.0048 | < 0.0050 | < 0.0051 | < 0.0050 | NA | NA | < 0.0051 | < 0.0051 | < 0.0047 | < 0.0046 | < 0.0052 | < 0.0052 |
| Total PCB Homologues | 0.5 | 0.5 | NA | < 0.0051 | < 0.0051 | ND | ND | ND | ND | NA | NA | **0.0329** | **0.0452** | **0.041** | **0.050** | **0.040** | **0.033** |

**Notes:**
This is a summary table. Only detected compounds are presented.
**Bold = Detected above reporting limit**
**Orange highlighted cells exceed GWPC.**
**Yellow highlighted cells exceed SWPC.**
<0.01 = Not detected above the specified laboratory reporting limit
GWPC = Ground water protection criteria
SWPC = Surface water protection criteria
NE = Criterion has not been established
NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent
mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

# Table 1
## Groundwater Analytical Data

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-S15<br>MW-S15-041619-1<br>4/16/2019<br>19D0862 | MW-S15<br>MW-S15-041619-2<br>4/16/2019<br>19D0862 | MW-T23<br>MW-T23-062818-1<br>6/28/2018<br>18F1460 | MW-T23<br>MW-T23-092818-1<br>9/28/2018<br>18I1338 | MW-T23<br>MW-T23-121318-1<br>12/13/2018<br>18L0663 | MW-U20<br>MW-U20-041719-1<br>4/17/2019<br>19D0928 | MW-V18<br>MW-V18-062818-1<br>6/28/2018<br>18F1460 | MW-V18<br>MW-V18-092618-1<br>9/26/2018<br>18I1195 | MW-V18<br>MW-V18-121318-1<br>12/13/2018<br>18L0663 | MW-V18<br>MW-V18-041619-1<br>4/16/2019<br>19D0862 | MW-V18<br>MW-V18-041619-2<br>4/16/2019<br>19D0862 | MW-X17<br>MW-X17-062618-1<br>6/26/2018<br>18F1321 | MW-X17<br>MW-X17-092618-1<br>9/26/2018<br>18I1195 | MW-X17<br>MW-X17-121318-1<br>12/13/2018<br>18L0663 | MW-X17<br>MW-X17-041619-1<br>4/16/2019<br>19D0862 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | **170** | **180** | NA | NA | NA | < 150 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | < 0.50 | < 0.50 | NA | NA | NA | < 0.50 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | < 1.0 | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | < 1.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthene | NE | NE | < 0.30 | < 0.30 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | < 0.20 | < 0.20 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | < 0.20 | < 0.20 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | < 0.050 | < 0.051 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | < 0.050 | < 0.051 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | < 0.50 | < 0.51 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chrysene | NE | NE | < 0.20 | < 0.20 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | < 0.10 | < 0.10 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 280 | 3700 | < 0.50 | < 0.51 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluorene | 280 | 140000 | < 1.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | < 0.10 | < 0.10 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| naphthalene | 280 | NE | < 1.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | < 0.050 | < 0.051 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | 200 | 110000 | < 1.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | < 1.0 | < 1.0 | NA | NA | NA | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | < 1.0 |
| Arsenic | 50 | 4 | **2.2** | **2.0** | NA | NA | NA | **0.68** | NA | NA | NA | NA | NA | NA | NA | NA | < 0.80 |
| Barium | 1000 | NE | **110** | **110** | NA | NA | NA | **200** | NA | NA | NA | NA | NA | NA | NA | NA | **4600** |
| Beryllium | 4 | 4 | < 0.40 | < 0.40 | NA | NA | NA | < 0.40 | NA | NA | NA | NA | NA | NA | NA | NA | < 0.40 |
| Chromium | 50 | NE | < 1.0 | < 1.0 | NA | NA | NA | **1.6** | NA | NA | NA | NA | NA | NA | NA | NA | **3.0** |
| Copper | 1300 | 48 | < 5.0 | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | NA | NA | NA | NA | NA | **20** |
| Lead | 15 | 13 | < 1.0 | < 1.0 | NA | NA | NA | **1.1** | NA | NA | NA | NA | NA | NA | NA | NA | < 1.0 |
| Nickel | 100 | 880 | < 5.0 | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | NA | NA | NA | NA | NA | **10** |
| Thallium | 5 | 63 | < 0.20 | < 0.20 | NA | NA | NA | < 0.20 | NA | NA | NA | NA | NA | NA | NA | NA | < 0.20 |
| Vanadium | 50 | NE | < 5.0 | < 5.0 | NA | NA | NA | < 5.0 | NA | NA | NA | NA | NA | NA | NA | NA | < 5.0 |
| Zinc | 5000 | 123 | < 10 | < 10 | NA | NA | NA | < 10 | NA | NA | NA | NA | NA | NA | NA | NA | **75** |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | ND | ND | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.00098 | < 0.0010 | **0.0013** | < 0.0010 | < 0.00096 | **0.0016** | **0.0024** | **0.0011** | < 0.00099 | **0.0024** | < 0.00099 | **0.0033** | **0.0016** | < 0.0010 | **0.0086** |
| Dichlorobiphenyl | NE | NE | **0.0038** | **0.0030** | < 0.0010 | < 0.0010 | < 0.00096 | < 0.0010 | **0.0073** | **0.014** | **0.015** | **0.011** | **0.0092** | **0.0056** | **0.0042** | < 0.0010 | **0.0051** |
| Trichlorobiphenyl | NE | NE | **0.015** | **0.016** | < 0.0010 | < 0.0010 | < 0.00096 | < 0.0010 | **0.016** | **0.039** | **0.038** | **0.021** | **0.021** | **0.0021** | **0.0035** | **0.0052** | < 0.00098 |
| Tetrachlorobiphenyl | NE | NE | **0.016** | **0.016** | < 0.0021 | < 0.0020 | < 0.0019 | < 0.0020 | **0.0090** | **0.022** | **0.024** | **0.017** | **0.016** | **0.0022** | < 0.0021 | **0.0097** | < 0.0020 |
| Pentachlorobiphenyl | NE | NE | **0.0023** | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0020 |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0049 | < 0.0050 | < 0.0052 | < 0.0050 | < 0.0048 | < 0.0051 | < 0.0051 | < 0.0051 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0052 | < 0.0050 | < 0.0049 |
| Total PCB Homologues | 0.5 | 0.5 | **0.036** | **0.036** | **0.0013** | ND | ND | **0.0016** | **0.0347** | **0.075** | **0.077** | **0.052** | **0.047** | **0.0132** | **0.0093** | **0.015** | **0.014** |

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## Groundwater Analytical Data

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-Y15<br>MW-Y15-062618-1<br>6/26/2018<br>18F1321 | MW-Y15<br>MW-Y15-092618-1<br>9/26/2018<br>18I1195 | MW-Y15<br>MW-Y15-121218-1<br>12/12/2018<br>18L0583 | MW-Y15<br>MW-Y15-041719-1<br>4/17/2019<br>19D0928 | MW-Y15D<br>MW-Y15D-062618-1<br>6/26/2018<br>18F1321 | MW-Y15D<br>MW-Y15D-092618-1<br>9/26/2018<br>18I1195 | MW-Y15D<br>MW-Y15D-121218-1<br>12/12/2018<br>18L0583 | MW-Y15D<br>MW-Y15D-041719-1<br>4/17/2019<br>19D0928 | MW-Y26<br>MW-Y26-062918-1<br>6/29/2018<br>18G0022 | MW-Y26<br>MW-Y26-092818-1<br>9/28/2018<br>18I1338 | MW-Y26<br>MW-Y26-121218-1<br>12/12/2018<br>18L0583 | MW-Y9<br>MW-Y9-062618-1<br>6/26/2018<br>18F1321 | MW-Y9<br>MW-Y9-092618-1<br>9/26/2018<br>18I1195 | MW-Y9<br>MW-Y9-121218-1<br>12/12/2018<br>18L0583 | MW-Y9<br>MW-Y9-041719-1<br>4/17/2019<br>19D0928 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | NA | **560** | NA | NA | NA | NA | NA | NA | NA | NA | NA | **280** | **260** |
| **VOCs (ug/L)** | | | | | | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | NA | < 0.50 | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 0.50 | < 0.50 |
| Tetrachloroethylene | 5 | 88 | NA | NA | NA | < 1.0 | NA | NA | NA | NA | NA | NA | NA | NA | NA | < 1.0 | < 1.0 |
| **PAHs (ug/L)** | | | | | | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | **0.13** | **0.08** | NA | < 0.97 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.98 | < 0.98 |
| Acenaphthene | NE | NE | **0.51** | **0.53** | NA | **0.54** | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.29 | < 0.29 |
| Acenaphthylene | 420 | 0.3 | < 0.05 | < 0.05 | NA | < 0.19 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.20 |
| Anthracene | 2000 | 1.1e+006 | **0.09** | **0.08** | NA | < 0.19 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.20 |
| Benzo(a)anthracene | 0.06 | 0.3 | < 0.05 | < 0.05 | NA | < 0.049 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.049 | < 0.049 |
| Benzo(b)fluoranthene | 0.08 | 0.3 | < 0.05 | < 0.05 | NA | < 0.049 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.049 | < 0.049 |
| Benzo(g,h,i)perylene | NE | NE | < 0.05 | < 0.05 | NA | < 0.49 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.49 | < 0.49 |
| Chrysene | NE | NE | < 0.05 | < 0.05 | NA | < 0.19 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.20 | < 0.20 |
| Dibenzo(a,h)anthracene | NE | NE | < 0.01 | < 0.01 | NA | < 0.097 | NA | NA | NA | NA | NA | NA | NA | < 0.01 | < 0.01 | < 0.098 | < 0.098 |
| Fluoranthene | 280 | 3700 | < 0.05 | < 0.05 | NA | < 0.49 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.49 | < 0.49 |
| Fluorene | 280 | 140000 | **0.27** | **0.31** | NA | < 0.97 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.98 | < 0.98 |
| Indeno(1,2,3-cd)pyrene | NE | NE | < 0.05 | < 0.05 | NA | < 0.097 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.098 | < 0.098 |
| naphthalene | 280 | NE | < 0.09 | < 0.09 | NA | < 0.97 | NA | NA | NA | NA | NA | NA | NA | < 0.10 | < 0.09 | < 0.98 | < 0.98 |
| Phenanthrene | 200 | 0.077 | **0.10** | **0.09** | NA | **0.093** | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.049 | < 0.049 |
| Pyrene | 200 | 110000 | < 0.05 | < 0.05 | NA | < 0.97 | NA | NA | NA | NA | NA | NA | NA | < 0.05 | < 0.05 | < 0.98 | < 0.98 |
| **Total Metals (ug/L)** | | | | | | | | | | | | | | | | | |
| Antimony | 6 | 86000 | < 5 | < 5 | < 5.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | < 5 | **21** | < 5.0 | **1.4** |
| Arsenic | 50 | 4 | < 4 | < 4 | **2.0** | **2.4** | NA | NA | NA | NA | NA | NA | NA | **5** | **7** | **2.1** | **2.0** |
| Barium | 1000 | NE | **700** | **584** | **650** | **500** | NA | NA | NA | NA | NA | NA | NA | **886** | **1250** | **940** | **670** |
| Beryllium | 4 | 4 | < 1 | < 1 | < 2.0 | < 0.40 | NA | NA | NA | NA | NA | NA | NA | < 1 | < 1 | < 2.0 | < 0.40 |
| Chromium | 50 | NE | < 1 | < 1 | < 5.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | < 1 | < 1 | < 5.0 | < 1.0 |
| Copper | 1300 | 48 | < 5 | < 5 | < 25 | < 5.0 | NA | NA | NA | NA | NA | NA | NA | < 5 | < 5 | < 25 | < 5.0 |
| Lead | 15 | 13 | < 2 | **2** | < 5.0 | < 1.0 | NA | NA | NA | NA | NA | NA | NA | < 2 | **7** | < 5.0 | **2.8** |
| Nickel | 100 | 880 | **1** | **2** | < 25 | < 5.0 | NA | NA | NA | NA | NA | NA | NA | **3** | **5** | < 25 | < 5.0 |
| Thallium | 5 | 63 | < 0.5 | < 0.5 | < 1.0 | < 0.20 | NA | NA | NA | NA | NA | NA | NA | < 0.5 | < 0.5 | < 1.0 | < 0.20 |
| Vanadium | 50 | NE | < 2 | **3** | < 25 | < 5.0 | NA | NA | NA | NA | NA | NA | NA | < 2 | **4** | < 25 | < 5.0 |
| Zinc | 5000 | 123 | **7** | **17** | < 50 | < 10 | NA | NA | NA | NA | NA | NA | NA | **5** | **9** | < 50 | **10** |
| **Pesticides (ug/L)** | | | | | | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | ND | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA | ND | ND | ND |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | **8.0** | **9.7** | **9.3** | **3.2** | **0.020** | **0.0014** | **0.017** | **0.010** | < 0.0010 | < 0.00096 | < 0.0010 | < 0.0010 | < 0.0010 | **0.0019** | < 0.00099 |
| Dichlorobiphenyl | NE | NE | **7.2** | **9.6** | **9.4** | **4.1** | **0.068** | < 0.0010 | **0.045** | **0.036** | < 0.0010 | < 0.00096 | < 0.0010 | < 0.0010 | < 0.0010 | **0.0039** | **0.0015** |
| Trichlorobiphenyl | NE | NE | **1.1** | **1.4** | **1.2** | **1.2** | **0.061** | < 0.0010 | **0.040** | **0.026** | < 0.0010 | < 0.00096 | < 0.0010 | < 0.0010 | < 0.0010 | **0.0029** | < 0.00099 |
| Tetrachlorobiphenyl | NE | NE | **0.15** | **0.30** | **0.20** | **0.16** | **0.041** | < 0.0020 | **0.036** | **0.019** | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | **0.0092** | < 0.0020 | < 0.0020 |
| Pentachlorobiphenyl | NE | NE | **0.012** | **0.041** | **0.019** | **0.018** | **0.0051** | < 0.0020 | **0.0058** | **0.0056** | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | **0.013** | < 0.0020 | < 0.0020 |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | **0.0022** | < 0.0019 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0019 | < 0.0020 | < 0.0020 | **0.0042** | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0050 | < 0.0050 | < 0.0048 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0049 | < 0.0050 | < 0.0051 | < 0.0048 | < 0.0050 | < 0.0050 | < 0.0050 | < 0.0049 | < 0.0050 |
| Total PCB Homologues | 0.5 | 0.5 | **16.462** | **21** | **20** | **8.6** | **0.1951** | **0.0014** | **0.14** | **0.097** | < 0.0051 | ND | ND | < 0.0050 | **0.026** | **0.0087** | **0.0015** |

**Notes:**
This is a summary table. Only detected compounds are presented.
**Bold = Detected above reporting limit**
**Orange highlighted cells exceed GWPC.**
**Yellow highlighted cells exceed SWPC.**
<0.01 = Not detected above the specified laboratory reporting limit
GWPC = Ground water protection criteria
SWPC = Surface water protection criteria
NE = Criterion has not been established
NS = Not Sampled for Specific Analyte
ug/L = microgram per liter
NS = Not sampled for this constituent
mg/L = miligram per Liter
(1) 0.1 mg/l is the current recommended screening criteria and requires CTDEEP approval to implement. 0.25 mg/l is the proposed GWPC.
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

# Table 1
## Groundwater Analytical Data

| Location ID<br>Sample ID<br>Sample Date<br>SDG | GWPC | SWPC | MW-Y9D<br>MW-Y9D-062618-1<br>6/26/2018<br>18F1321 | MW-Y9D<br>MW-Y9D-092618-1<br>9/26/2018<br>18I1195 | MW-Y9D<br>MW-Y9D-121218-1<br>12/12/2018<br>18L0583 | MW-Y9D<br>MW-Y9D-041719-1<br>4/17/2019<br>19D0928 | DGF3<br>DGF3-092618-1<br>9/26/2018<br>18I1259 | ODG-F3<br>ODG-F3-04161-1<br>4/16/2019<br>19D0864 | ODG-F3<br>ODG-F3-041619-2<br>4/16/2019<br>19D0864 | UGF4<br>UGF4-092618-1<br>9/26/2018<br>18I1259 | UGF4<br>UGF4-092618-2<br>9/26/2018<br>18I1259 | OUG-F4<br>OUG-F4-041619-1<br>4/16/2019<br>19D0864 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **CT ETPH (ug/L)** | | | | | | | | | | | | |
| Aliphatic Hydrocarbons (ETPH) C9-C36 | 250 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **VOCs (ug/L)** | | | | | | | | | | | | |
| 1,2,4-Trimethylbenzene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Tetrachloroethylene | 5 | 88 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PAHs (ug/L)** | | | | | | | | | | | | |
| 2-Methylnaphthalene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Acenaphthylene | 420 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Anthracene | 2000 | 1.1e+006 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(a)anthracene | 0.06 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(b)fluoranthene | 0.08 | 0.3 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Benzo(g,h,i)perylene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chrysene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Dibenzo(a,h)anthracene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluoranthene | 280 | 3700 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Fluorene | 280 | 140000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Indeno(1,2,3-cd)pyrene | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| naphthalene | 280 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Phenanthrene | 200 | 0.077 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Pyrene | 200 | 110000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Total Metals (ug/L)** | | | | | | | | | | | | |
| Antimony | 6 | 86000 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Arsenic | 50 | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Barium | 1000 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Beryllium | 4 | 4 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Chromium | 50 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Copper | 1300 | 48 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Lead | 15 | 13 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Nickel | 100 | 880 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Thallium | 5 | 63 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Vanadium | 50 | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| Zinc | 5000 | 123 | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **Pesticides (ug/L)** | | | | | | | | | | | | |
| Total Pesticides | NE | NE | NA | NA | NA | NA | NA | NA | NA | NA | NA | NA |
| **PCB Homologs (ug/L)** | | | | | | | | | | | | |
| Monochlorobiphenyl | NE | NE | < 0.0010 | **0.0082** | **0.0013** | < 0.0010 | < 0.0010 | **0.33** | **0.26** | **0.0027** | **0.0019** | **0.0059** |
| Dichlorobiphenyl | NE | NE | < 0.0010 | **0.0076** | **0.0013** | **0.0012** | < 0.0010 | **0.43** | **0.38** | **0.0047** | **0.0028** | **0.012** |
| Trichlorobiphenyl | NE | NE | < 0.0010 | < 0.0010 | < 0.00098 | < 0.0010 | **0.0017** | **0.23** | **0.21** | **0.025** | **0.024** | **0.013** |
| Tetrachlorobiphenyl | NE | NE | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0020 | **0.013** | **0.13** | **0.12** | **0.054** | **0.050** | **0.020** |
| Pentachlorobiphenyl | NE | NE | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0020 | **0.0030** | **0.016** | **0.015** | **0.022** | **0.022** | **0.0041** |
| Hexachlorobiphenyl | NE | NE | < 0.0020 | < 0.0021 | < 0.0020 | < 0.0020 | < 0.0020 | < 0.0022 | < 0.0022 | **0.0027** | < 0.0020 | < 0.0020 |
| Decachlorobiphenyl (PCB-209) | NE | NE | < 0.0050 | < 0.0052 | < 0.0049 | < 0.0050 | < 0.0050 | < 0.0055 | < 0.0054 | < 0.0050 | < 0.0050 | < 0.0049 |
| Total PCB Homologues | 0.5 | 0.5 | < 0.0050 | **0.016** | **0.0027** | **0.0012** | **0.018** | **1.1** | **0.99** | **0.11** | **0.10** | **0.054** |

**Notes:**
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**Yellow highlighted cells exceed SWPC.**
<0.01 = Not detected above the specified laboratory reporting limit
GWPC = Ground water protection criteria
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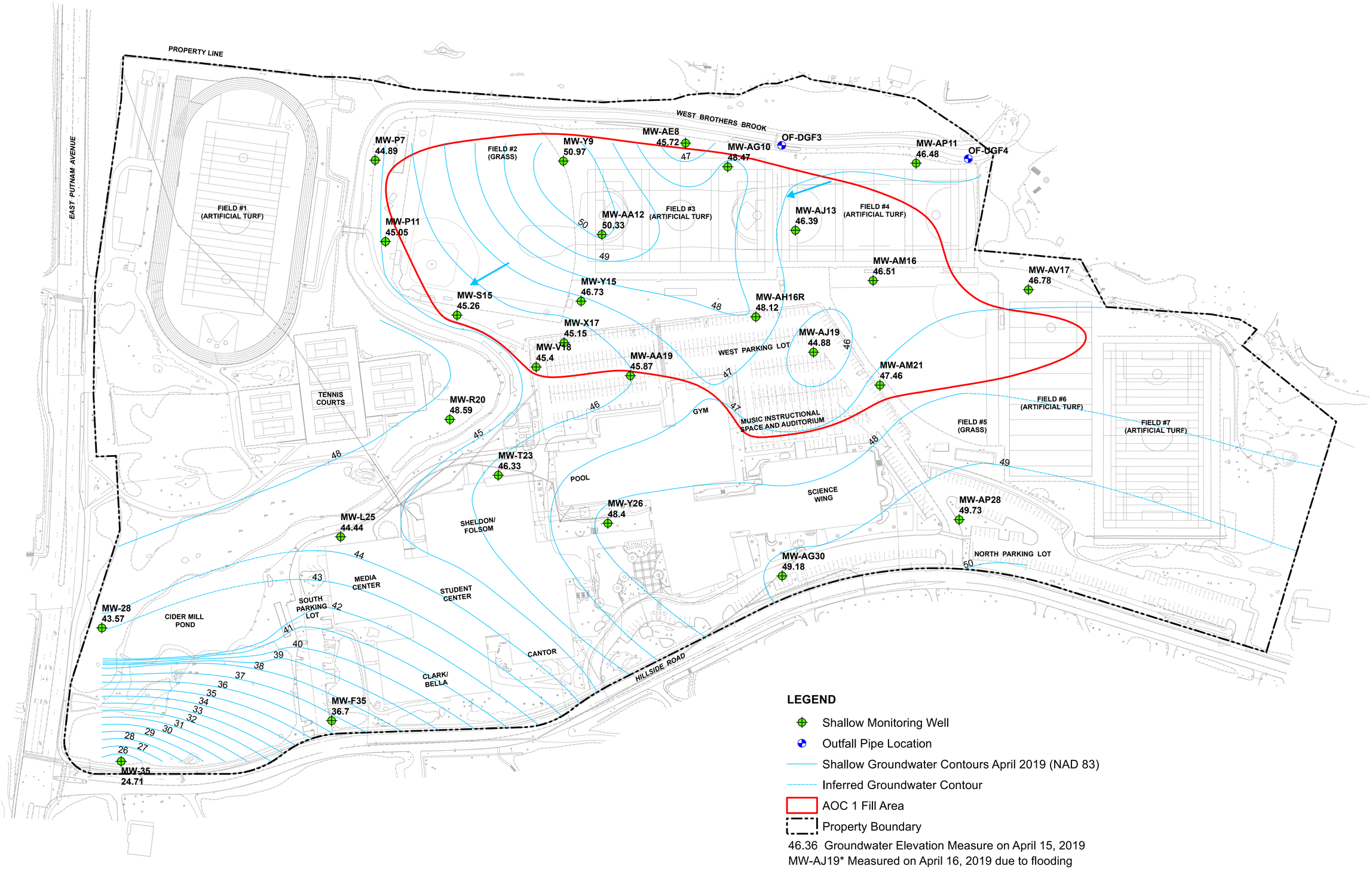
(2) 100 ug/l is the promulgated GWPC. 70 ug/l is the Drinking Water Action Level set by the Connecticut Department of Public Health.

## Figures




## LEGEND

- Shallow Monitoring Well
- Outfall Pipe Location
- Shallow Groundwater Contours April 2019 (NAD 83)
- Inferred Groundwater Contour
- AOC 1 Fill Area
- Property Boundary

46.36 Groundwater Elevation Measure on April 15, 2019

MW-AJ19* Measured on April 16, 2019 due to flooding

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

AECOM Environment
500 ENTERPRISE DR. STE 1A
ROCKY HILL, CT 06067
(860) 263-5800
www.aecom.com

AECOM

N

SCALE:

1" = 80'

0 40 80 160 240 Feet

SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

**FIGURE 1**
APRIL 2019
SHALLOW OVERBURDEN GROUNDWATER CONTOURS

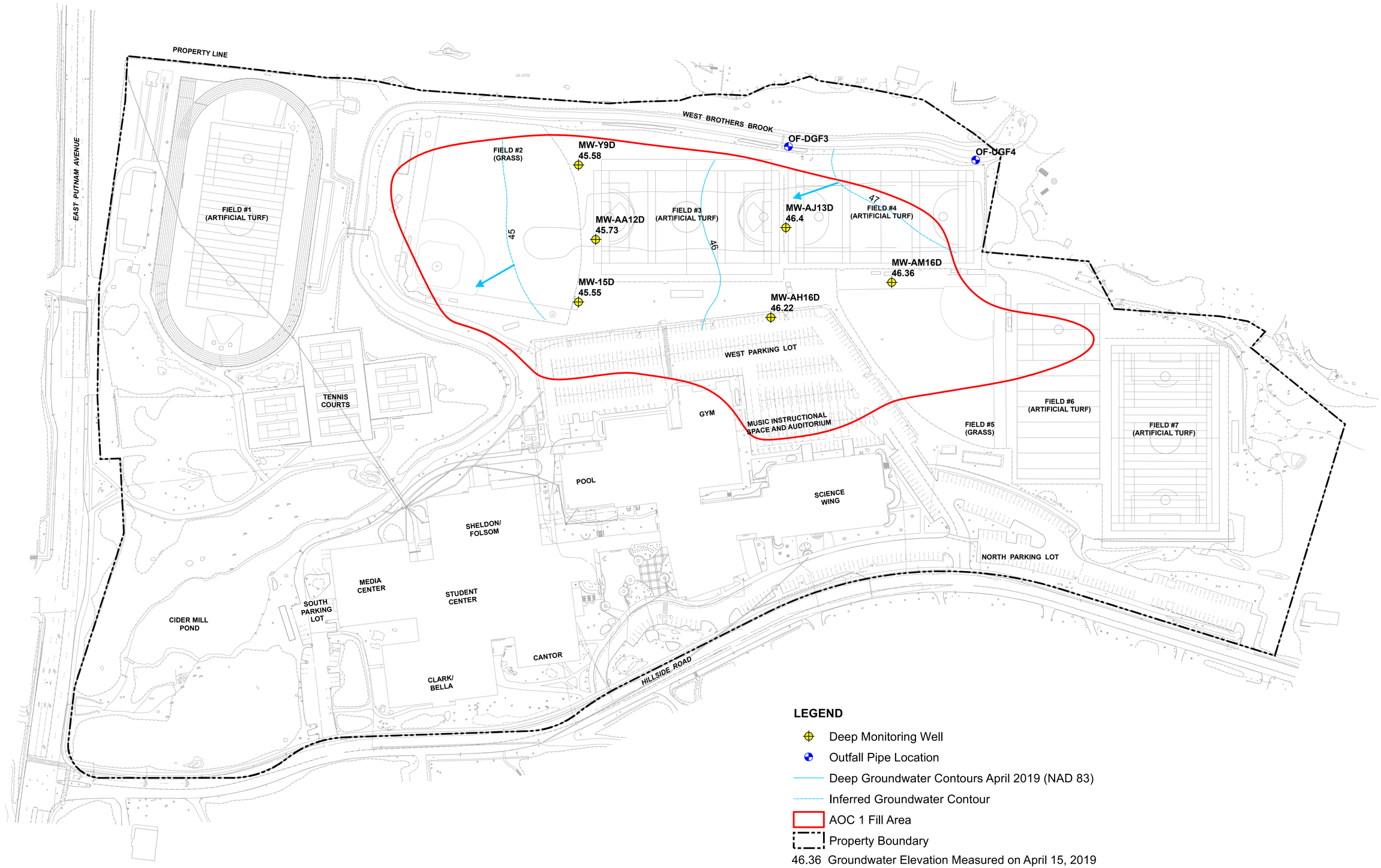
JOB 60225155

FILE NO.

CAD FILE

SHEET

Path: X:\60432356 Greenwich High School Remediation\900-Work\GIS\MXD\April 2019 Contours.mxd




Path: X:\60432356 Greenwich High School Remediation\900-Work\GIS\MXD\April 2019 Deep Contours.mxd

GREENWICH HIGH SCHOOL
10 HILLSIDE ROAD
GREENWICH, CT

SOURCE:
2010 AERIAL ORTHOPHOTO FROM STATE OF CONNECTICUT DEPARTMENT OF ENERGY & ENVIRONMENTAL PROTECTION.

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N

SCALE:
1" = 80'
0 40 80 160 240 Feet
SCALE

UNLESS OTHERWISE NOTED OR CHANGED BY REPRODUCTION

**FIGURE 2**
APRIL 15, 2019
DEEP OVERBURDEN GROUNDWATER CONTOURS

JOB 60225155
FILE NO.
CAD FILE
SHEET

# Appendix A – Monitoring Well Construction Logs

# Boring Log

**Boring ID:** MW-AH-16D

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Client* | Town of Greenwich | | | ***Sheet:*** | 1 ***of*** 1 |
| | | *Project Number:* | 60432356 | | | *Drilling Method:* | Hand Auger |
| | | *Site:* | Greenwich High School | | | *Ground Elev.:* | |
| *Project Manager:* | Matt Rood | *Logged By:* | John Crespo | *Date Started:* | 6/26/2018 | *Depth of Boring:* | 48' |
| *Drilling Co.:* | Martin GeoEnvironmental | *Driller:* | Jeremy Martin | *Date Finished:* | 6/27/2018 | *Water Level:* | 3.50 |

| *Depth* (feet) | *Elevation* (feet) | *Lab Sample ID* | *Recovery* (inches) | *Moisture* | *PID* (ppm) | *USCS* | *Classification of Material* |
|---|---|---|---|---|---|---|---|
| 5 | | na | | ground water<br>wet | na | | . Fine to medium sand, brown color, no odor. Moist. .<br>3.5' Same as above. Wet. |
| 10 | | na | | | na | | . Fine to medium sand, brown color, no odor. |
| 15 | | na | | | | | . Same as above<br>. 13' - PEAT |
| 20 | | na | | | | | . PEAT |
| 25 | | na | | | | | . 20 - 23' - PEAT<br>. Fine to medium sand, no odor |
| 30 | | na | | | | | . Same as above |
| 35 | | na | | | | | . Same as above |
| 40 | | na | | | | | . Same as above |
| 45 | | na | | | | | . Same as above |
| 50 | | na | | | | | . Same as above |
| | | | | | | | END OF BORING AT 48' B.G.<br>INSTALLED WELL MW-AH-16D , 2" diam, screen 38 - 48'. |

## DRILLING SUMMARY

**Geologist:** John Crespo

**Drilling Company:** Martin Geo

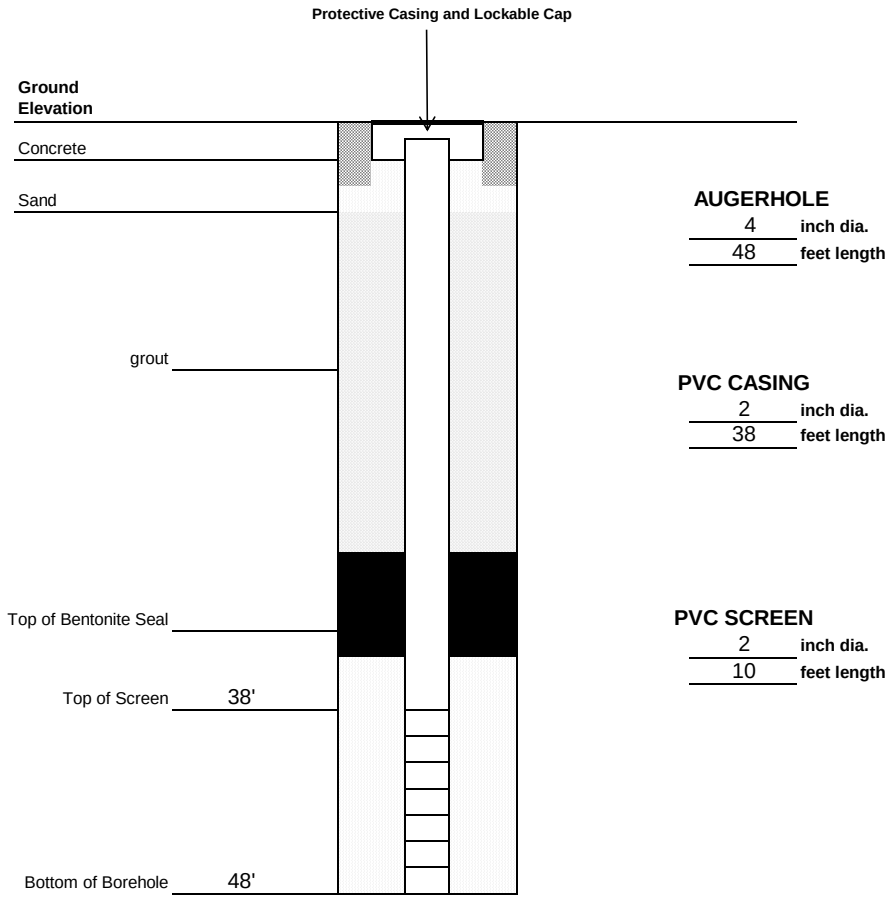
**Driller:** Jeremy Martin

**Rig Make/Model:** Truck mounted

**Date:** 06/26/18

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| 0 - 13' | fine to medium sand, fine gravel |
| 13' - 23' | Peat |
| 23' - 48' | fine to medium sand |




## WELL DESIGN

| CASING MATERIAL | | SCREEN MATERIAL | | FILTER MATERIAL | | | |
|---|---|---|---|---|---|---|---|
| **Surface:** | Flush Mount Steel Cover | **Type:** | 2" Schedule 40 PVC | **Type:** | #2 Well Sand | **Setting:** | 36' - 48' |
| **Riser:** | 2" Schedule 40 PVC | **Slot Size:** | 0.020" | **SEAL MATERIAL** | | | |
| | | | | **Type:** | Bentonite | **Setting:** | 31' - 36' |

***COMMENTS:***

***LEGEND***

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | **Greenwich High School** | **Location:** | **Greenwich Hich School** | **Project No.:** | **60432356** |
| ***AECOM Corporation*** | | **MONITORING WELL CONSTRUCTION DETAILS** | | **Well Number:** | **MW-AH-16D** |

# Boring Log

**Boring ID:** **MW-H29**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Client* | Town of Greenwich | | | ***Sheet:*** | 1 ***of*** 1 |
| | | *Project Number:* | 60432356 | | | *Drilling Method:* | Geoprobe |
| | | *Site:* | Greenwich High School | | | *Ground Elev.:* | |
| *Project Manager:* | Patrick Haskell | *Logged By:* | John Crespo | *Date Started:* | 12/27/2018 | *Depth of Boring:* | 17 1/2' |
| *Drilling Co.:* | AARCO Env. | *Driller:* | Deiby Pacheco | *Date Finished:* | 12/27/2018 | *Water Level:* | 6' |

| *Depth* (feet) | *Elevation* (feet) | *Lab Sample ID* | *Recovery* (inches) | *Moisture* | *PID* (ppm) | *USCS* | *Classification of Material* |
|---|---|---|---|---|---|---|---|
| 5' | | na | na | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - Hand Clear to 5'<br>- 0 - 1' Roots, fine and medium sand, fine and medium pebbles.<br>- 1 - 5' Fine and medium sand, fine and medium pebbles and fine to medium cobbles imbeded. |
| 10' | | na | 54 | moist | 6.8<br>4.5<br>6.3<br>7.1<br>0.0 | | - 5 - 7'. Dark green color, fine to medium sand, silt and clay. Moist with no odor<br>- 7 - 10'. Green color, fine to medium sand, medium gravel imbeded. No odor. |
| 15' | | na | 50 | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - 10' - 12'. Same as above<br>- 12 - 13'. Same as above with pulverized white rock.<br>- 13 - 15'. Same green color. Fine, medium and large sand, medium gravel imbeded. No odor. |
| 20' | | na | 36 | moist | 0.0<br>0.0<br>0.0 | | - 15 - 16'. Light green color. Fine and medium sand, trace silt and clay. - 16 - 17 1/2'. Same color with fine and medium sand and fine to medium pebbles. |
| | | | | | | | - Refusal at 17 1/2'<br>- End of boring at 17 1/2' b.g. |
| | | | | | | | Install well 2" diameter, bottom of well 14' and a 10' screen. |
| | | | | | | | Borings advaced using a drill rig AMS Power Probe 9580 |
| | | | | | | | Note: PID working erratically. Recalibrated twice. |
| | | | | | | | |

## DRILLING SUMMARY

**Geologist:** John Crespo

**Drilling Company:** AARCO Environmental

**Driller:** Deiby Pacheco

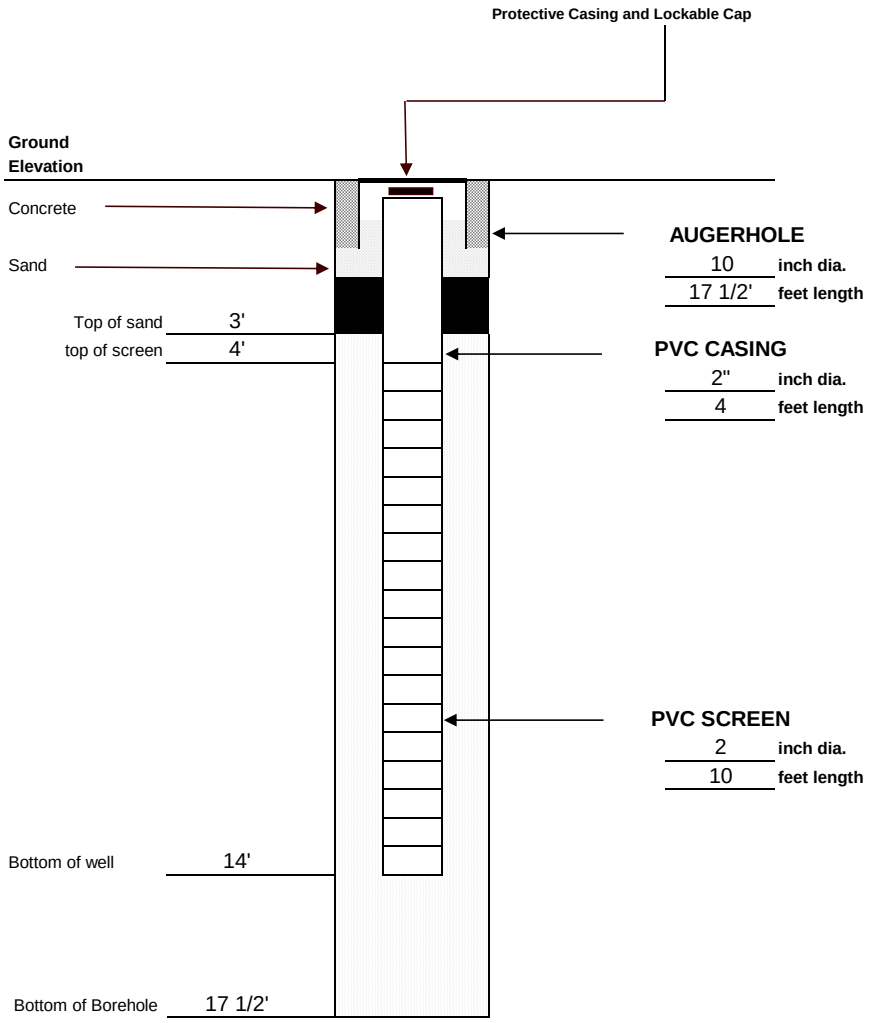
**Rig Make/Model:** AMS Power Probe 9580

**Date:** 12/27/18

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| 0 - 1' | Roots, fine med sand, fine to med pebbles and cobbles. |
| 1 - 5' | Fine to med sand, silt and trace clay, fine to med gravel imbeded. |
| 17 1/2' | Refusal |
| | End of Boring at 17 1/2' b.g. |

DEPTH




## WELL DESIGN

| CASING MATERIAL | | SCREEN MATERIAL | | FILTER MATERIAL | |
|---|---|---|---|---|---|
| **Surface:** | Flush Mount Steel Cover | **Type:** | 2" Schedule 40 PVC | **Type:** #2 Well Sand | **Setting:** 17 1/2 - 3' |
| **Riser:** | 2" Schedule 40 PVC | **Slot Size:** | 0.020" | **SEAL MATERIAL** | |
| | | | | **Type:** Bentonite | **Setting:** 3' - 2 ' |

***COMMENTS:***

***LEGEND***

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | **Town of Greenwich** | **Location:** | **Greenwich High School** | **Project No.:** | **60432356** |
| ***AECOM Corporation*** | | **MONITORING WELL CONSTRUCTION DETAILS** | | **Well Number:** | **MW-H29** |

# Boring Log

**Boring ID:** **MW-U20**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Client* | Town of Greenwich | | | ***Sheet:*** | 1 ***of*** 1 |
| | | *Project Number:* | 60432356 | | | *Drilling Method:* | Geoprobe |
| | | *Site:* | Greenwich High School | | | *Ground Elev.:* | |
| *Project Manager:* | Patrick Haskell | *Logged By:* | John Crespo | *Date Started:* | 12/27/2018 | *Depth of Boring:* | 20' |
| *Drilling Co.:* | AARCO Env. | *Driller:* | Deiby Pacheco | *Date Finished:* | 12/28/2018 | *Water Level:* | 8' |

| *Depth* (feet) | *Elevation* (feet) | *Lab Sample ID* | *Recovery* (inches) | *Moisture* | *PID* (ppm) | *USCS* | *Classification of Material* |
|---|---|---|---|---|---|---|---|
| | | | | | 0.0 | | - Hand Clear to 5' |
| | | | | | 0.0 | | - 0 - 1' . Dark brown color. Roots, fine gravel, RCA and medium sand. |
| | | | | | 0.0 | | - 1 - 4' Light brown color. Fine sand, fine pebbles and medium cobbles imbeded. |
| | | | | | 0.0 | | -4 - 5'. Brown color. Fine medium sand, fine and medium gravel imbeded. |
| 5' | | na | na | moist | 0.0 | | |
| | | | | | 0.0 | | |
| | | | | | 0.0 | | - 5 - 8'. Same as above with pulverized rock and fine gravel at 8'. No odor. |
| | | | | | 0.0 | | - 8 - 10'. Light green color. fine to medium sand, trace silt and clay. No odor. |
| | | | | | 0.0 | | |
| 10' | | na | 46 | moist | 0.0 | | |
| | | | | | 0.0 | | - Same as above with fine gravel and pulverized rock - |
| | | | | | | | Refusal at 10 /12'. Switched to air Hammer |
| 15' | | na | | | | | |
| | | | | | | | - Drilled using air hammer to 20' b.g. |
| | | | | | | | - End of boring at 20' b.g. |
| 20' | | | | | | | |
| | | | | | | | Installed well 2" diameter, set bottom to 11', with a 5' screen |
| | | | | | | | Depth to water approximately 8' b.g. |
| | | | | | | | Advaced borings and air hammer using a Geoprobe model 7822DT |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## DRILLING SUMMARY

**Geologist:** John Crespo

**Drilling Company:** AARCO Environmental

**Driller:** Deiby Pacheco

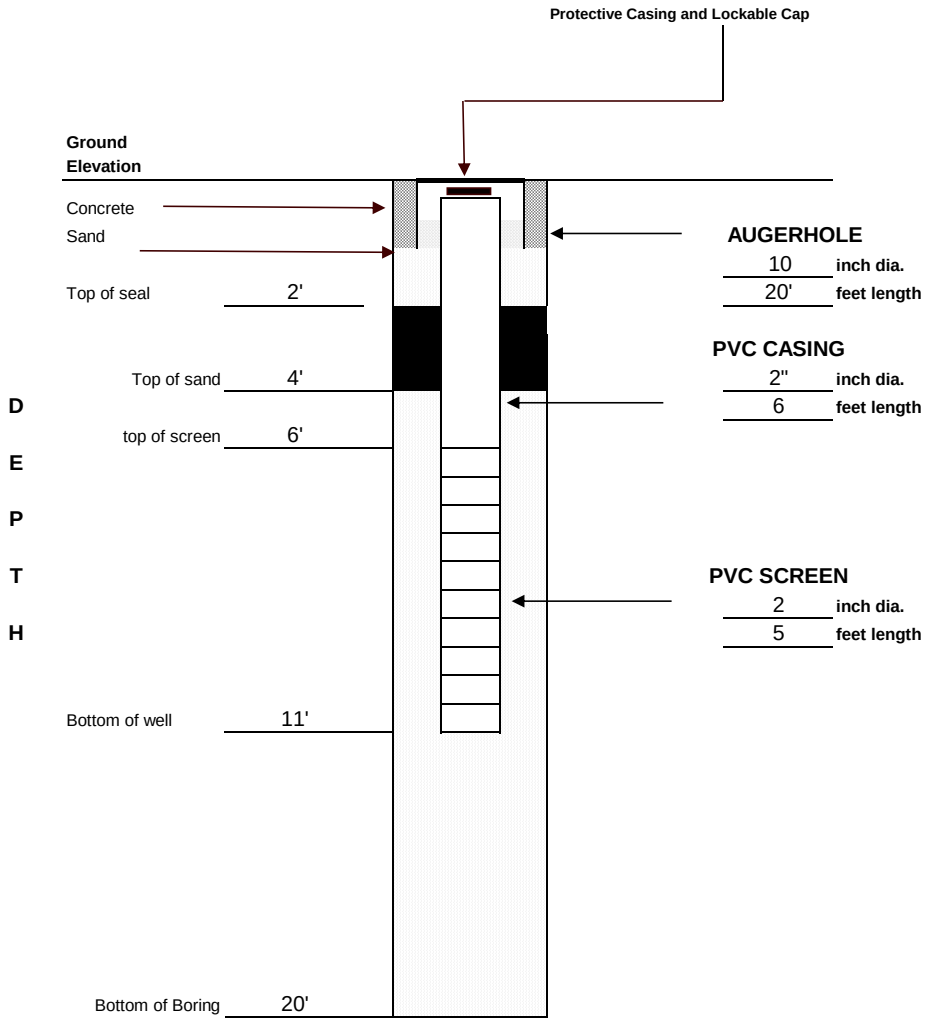
**Rig Make/Model:** Geo Probe model 7822DT

**Date:** 12/27/2018 to 12/28/18

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| 0 - 1' | Roots, fine gravel, RCA and medium sand |
| 1 - 8' | Fine sand, med gravel, med cobbles imbeded. |
| 8 - 10 1/2' | Fine med sand, trace silt and clay, fine medium gravel imbeded. |
| 10 1/2' | Refusal |
| | Switched to air hammer<br><br>End of Boring at 20' b.g. |

## WELL DESIGN




| CASING MATERIAL | | SCREEN MATERIAL | | FILTER MATERIAL | | | |
|---|---|---|---|---|---|---|---|
| **Surface:** | Flush Mount Steel Cover | **Type:** | 2" Schedule 40 PVC | **Type:** | #2 Well Sand | **Setting:** | 20 - 4' |
| **Riser:** | 2" Schedule 40 PVC | **Slot Size:** | 0.020" | **SEAL MATERIAL** | | | |
| | | | | **Type:** | Bentonite | **Setting:** | 4' - 2 ' |

***COMMENTS:***

***LEGEND***

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | **Town of Greenwich** | **Location:** | **Greenwich High School** | **Project No.:** | **60432356** |
| ***AECOM Corporation*** | | **MONITORING WELL CONSTRUCTION DETAILS** | | **Well Number:** | **MW-U20** |

# Boring Log

**Boring ID:** **MW-N22**

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | *Client* | Town of Greenwich | | | ***Sheet:*** | 1 ***of*** 1 |
| | | *Project Number:* | 60432356 | | | *Drilling Method:* | Geoprobe |
| | | *Site:* | Greenwich High School | | | *Ground Elev.:* | |
| *Project Manager:* | Patrick Haskell | *Logged By:* | John Crespo | *Date Started:* | 12/28/2018 | *Depth of Boring:* | 10' |
| *Drilling Co.:* | AARCO Env. | *Driller:* | Deiby Pacheco | *Date Finished:* | 12/28/2018 | *Water Level:* | 4 1/2' |

| *Depth* (feet) | *Elevation* (feet) | *Lab Sample ID* | *Recovery* (inches) | *Moisture* | *PID* (ppm) | *USCS* | *Classification of Material* |
|---|---|---|---|---|---|---|---|
| 5' | | na | na | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - Hand Clear to 5'<br>- 0 - 2' . Dark brown color. Roots, fine to medium sand, fine gravel and pebbles.<br>- 2 - 5' Brown color. Fine and medium sand, trace silt, fine medium and large gravel with a small boulder at 3'. No odor. Green/brown color seen at around 4 1/2'. |
| 10' | | na | 46 | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - 5 - 8'. Brown color. Medium sand, fine, medium and large gravel. Pulverized rock at 6' then at 7 1/2'. No odor.<br>- 8 - 9'. Brown color. Fine sand, trace silt and clay. Fine gravel imbeded. No odor.<br>-9 - 10' Greenish color. Same as above with pulverized weathered rock at 9'. |
| 15' | | | | | | | - Refusal at 10'. |
| 20' | | | | | | | Installed well 2" diameter, set bottom to 10', with a 7' screen<br>Depth to water approximately 4 1/2' b.g. |
| | | | | | | | Advaced borings and air hammer using a Geoprobe model 7822DT |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## DRILLING SUMMARY

**Geologist:** John Crespo

**Drilling Company:** AARCO Environmental

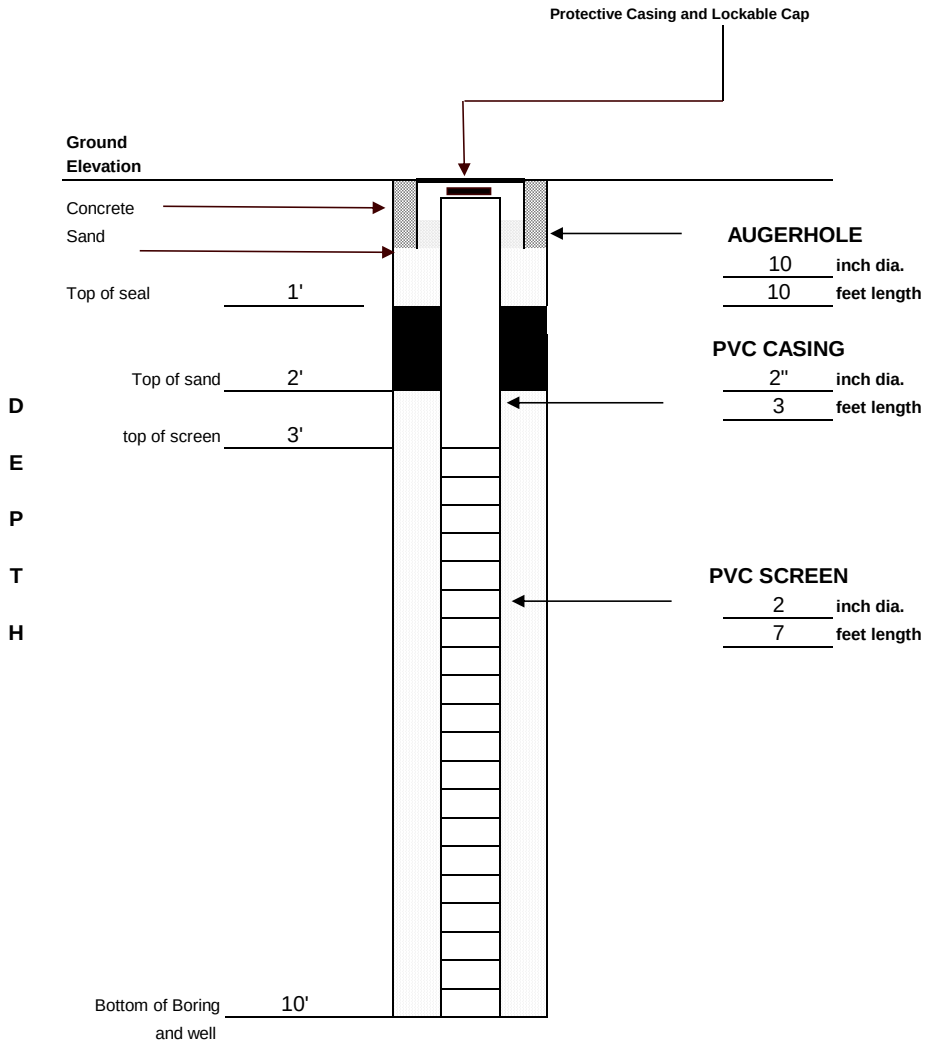
**Driller:** Deiby Pacheco

**Rig Make/Model:** Geo Probe model 7822DT

**Date:** 12/28/18

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| 0 - 1' | Roots, fine gravel, and pebbles |
| 1 - 10' | Fine med sand, fine to med gravel, trace silt and clay. Weathered rock at 9' b.g. |
| 10' | Refusal |
| | End of Boring at 10' b.g. |




## WELL DESIGN

| CASING MATERIAL | SCREEN MATERIAL | FILTER MATERIAL |
|---|---|---|
| **Surface:** Flush Mount Steel Cover | **Type:** 2" Schedule 40 PVC | **Type:** #2 Well Sand **Setting:** 10 - 2' |
| **Riser:** 2" Schedule 40 PVC | **Slot Size:** 0.020" | **SEAL MATERIAL** **Type:** Bentonite **Setting:** 2' - 1 ' |

***COMMENTS:***

***LEGEND***

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

| | | |
|---|---|---|
| **Client:** Town of Greenwich | **Location:** Greenwich High School | **Project No.:** 60432356 |
| ***AECOM Corporation*** | **MONITORING WELL CONSTRUCTION DETAILS** | **Well Number:** **MW-N22** |

# Boring Log

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | | | | | | **Boring ID:** | **MW-D4** |
| | | *Client* | Town of Greenwich | | | ***Sheet:*** | 1 ***of*** 1 |
| | | *Project Number:* | 60432356 | | | *Drilling Method:* | Geoprobe |
| | | *Site:* | Greenwich High School | | | *Ground Elev.:* | |
| *Project Manager:* | Patrick Haskell | *Logged By:* | John Crespo | *Date Started:* | 12/28/2018 | *Depth of Boring:* | 15' |
| *Drilling Co.:* | AARCO Env. | *Driller:* | Deiby Pacheco | *Date Finished:* | 12/28/2018 | *Water Level:* | 5' |

| *Depth* (feet) | *Elevation* (feet) | *Lab Sample ID* | *Recovery* (inches) | *Moisture* | *PID* (ppm) | *USCS* | *Classification of Material* |
|---|---|---|---|---|---|---|---|
| 5' | | na | na | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - Hand Clear to 5'<br>- 0 - 1' Brown color. Roots, fine and medium sand, fine and medium pebbles.<br>- 1 - 5' Brown color. Fine and medium sand, fine, medium and large gravel. Small boulder at 3'. |
| 10' | | na | 46 | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - 5 - 7'. Light brown color. Fine, medium and large sand. Fine pebbles with some black color gravel imbeded. No odor<br>- 7 - 10'. Same as above with fine gravel and trace silt. No odor. |
| 15' | | na | 54 | moist | 0.0<br>0.0<br>0.0<br>0.0<br>0.0 | | - 10' - 15'. Same as above with pulverized white color gravel at 12' and again at 14' b.g. |
| 20' | | | | | | | End of boring at 15' b.g. |
| | | | | | | | Installed well 2" diameter, set bottom to 15', with a 10' screen<br>Depth to water approximately 5' b.g. |
| | | | | | | | Advaced borings and air hammer using a Geoprobe model 7822DT |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

## DRILLING SUMMARY

**Geologist:** John Crespo

**Drilling Company:** AARCO Environmental

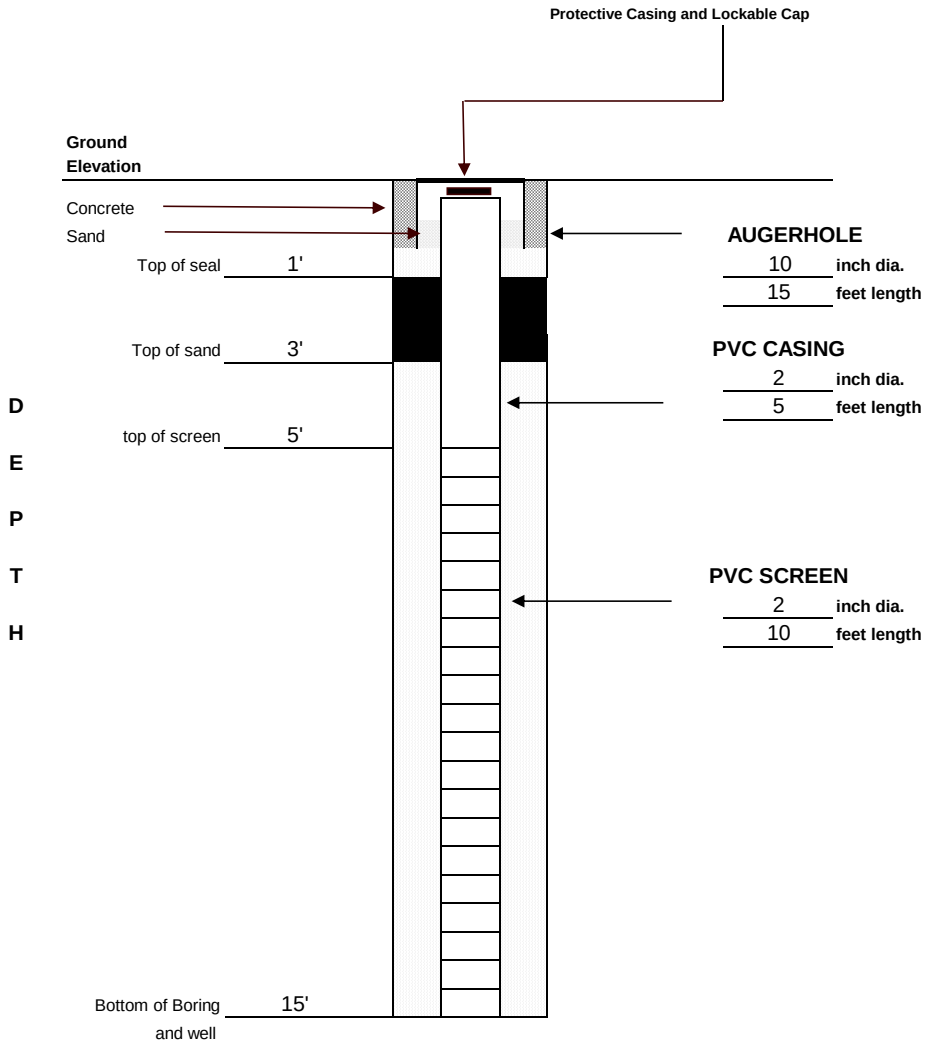
**Driller:** Deiby Pacheco

**Rig Make/Model:** Geo Probe model 7822DT

**Date:** 12/28/18

## GEOLOGIC LOG

| Depth(ft.) | Description |
|---|---|
| 0 - 1' | Roots, fine gravel, and pebbles |
| 1 - 15' | Fine, med and large sand, trace silt, fine pebbles, med and large gravel with med cobbles imbeded. |
| | End of Boring at 15' b.g. |




## WELL DESIGN

| CASING MATERIAL | | SCREEN MATERIAL | | FILTER MATERIAL | |
|---|---|---|---|---|---|
| **Surface:** | Flush Mount Steel Cover | **Type:** | 2" Schedule 40 PVC | **Type:** #2 Well Sand | **Setting:** 15 - 3' |
| **Riser:** | 2" Schedule 40 PVC | **Slot Size:** | 0.020" | **SEAL MATERIAL** | |
| | | | | **Type:** Bentonite | **Setting:** 3' - 1 ' |

***COMMENTS:***

***LEGEND***

- Cement/Bentonite Grout
- Bentonite Seal
- Silica Sandpack

| | | | | | |
|---|---|---|---|---|---|
| **Client:** | **Town of Greenwich** | **Location:** | **Greenwich High School** | **Project No.:** | **60432356** |
| ***AECOM Corporation*** | | **MONITORING WELL CONSTRUCTION DETAILS** | | **Well Number:** | **MW-D4** |

# Appendix B – Laboratory Analytical Reports

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 9, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18G0022

Enclosed are results of analyses for samples received by the laboratory on July 2, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18G0022-01 5

18G0022-02 6

18G0022-03 7

18G0022-04 8

18G0022-05 9

Sample Preparation Information 10

QC Data 11

PCB Homologues by GC/MS Water 11

B207193 11

Flag/Qualifier Summary 13

Certifications 14

Chain of Custody/Sample Receipt 15

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 7/9/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18G0022

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-28-062918-1 | 18G0022-01 | Ground Water | | EPA 680 Modified | |
| MW-35-062918-1 | 18G0022-02 | Ground Water | | EPA 680 Modified | |
| MW-AA19-062918-1 | 18G0022-03 | Ground Water | | EPA 680 Modified | |
| MW-F35-062918-1 | 18G0022-04 | Ground Water | | EPA 680 Modified | |
| MW-Y26-062918-1 | 18G0022-05 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Octachlorobiphenyls**
S024974-CCV2

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18G0022

Date Received: 7/2/2018

**Field Sample #: MW-28-062918-1** | Sampled: 6/29/2018 10:15

**Sample ID: 18G0022-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:56 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 72.3 | 50-125 | | 7/5/18 16:56 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18G0022

Date Received: 7/2/2018

**Field Sample #: MW-35-062918-1**
Sampled: 6/29/2018 10:05

**Sample ID: 18G0022-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 17:33 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 57.4 | 50-125 | | 7/5/18 17:33 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18G0022

Date Received: 7/2/2018

**Field Sample #: MW-AA19-062918-1** | Sampled: 6/29/2018 08:05

**Sample ID: 18G0022-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:11 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 69.5 | 50-125 | | 7/5/18 18:11 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18G0022

Date Received: 7/2/2018

**Field Sample #: MW-F35-062918-1**
Sampled: 6/29/2018 09:10

**Sample ID: 18G0022-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 18:48 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 69.1 | 50-125 | | 7/5/18 18:48 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18G0022

Date Received: 7/2/2018

**Field Sample #: MW-Y26-062918-1** | Sampled: 6/29/2018 08:20

**Sample ID: 18G0022-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 19:26 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 71.2 | 50-125 | | 7/5/18 19:26 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18G0022-01 [MW-28-062918-1] | B207193 | 990 | 1.00 | 07/03/18 |
| 18G0022-02 [MW-35-062918-1] | B207193 | 980 | 1.00 | 07/03/18 |
| 18G0022-03 [MW-AA19-062918-1] | B207193 | 1000 | 1.00 | 07/03/18 |
| 18G0022-04 [MW-F35-062918-1] | B207193 | 990 | 1.00 | 07/03/18 |
| 18G0022-05 [MW-Y26-062918-1] | B207193 | 990 | 1.00 | 07/03/18 |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B207193 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B207193-BLK1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.151* | | µg/L | 0.200 | | 75.7 | 50-125 | | | |
| **LCS (B207193-BS1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.0 | 40-140 | | | |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 78.9 | 40-140 | | | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 75.6 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 77.1 | 40-140 | | | |
| Pentachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.2 | 40-140 | | | |
| Hexachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.7 | 40-140 | | | |
| Heptachlorobiphenyls | 0.42 | 0.0030 | µg/L | 0.600 | | 69.2 | 40-140 | | | |
| Octachlorobiphenyls | 0.38 | 0.0030 | µg/L | 0.600 | | 63.4 | 40-140 | | | |
| Nonachlorobiphenyls | 0.71 | 0.0050 | µg/L | 1.00 | | 71.1 | 40-140 | | | |
| Decachlorobiphenyl | 0.72 | 0.0050 | µg/L | 1.00 | | 72.0 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.141* | | µg/L | 0.200 | | 70.6 | 50-125 | | | |
| **LCS Dup (B207193-BSD1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.1 | 40-140 | 0.144 | 50 | |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 82.1 | 40-140 | 3.98 | 50 | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 77.0 | 40-140 | 1.90 | 50 | |
| Tetrachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 78.2 | 40-140 | 1.38 | 50 | |
| Pentachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 81.1 | 40-140 | 2.54 | 50 | |
| Hexachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.7 | 40-140 | 0.0640 | 50 | |
| Heptachlorobiphenyls | 0.41 | 0.0030 | µg/L | 0.600 | | 68.4 | 40-140 | 1.15 | 50 | |
| Octachlorobiphenyls | 0.37 | 0.0030 | µg/L | 0.600 | | 61.3 | 40-140 | 3.48 | 50 | |
| Nonachlorobiphenyls | 0.69 | 0.0050 | µg/L | 1.00 | | 69.1 | 40-140 | 2.91 | 50 | |
| Decachlorobiphenyl | 0.70 | 0.0050 | µg/L | 1.00 | | 69.5 | 40-140 | 3.47 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.150* | | µg/L | 0.200 | | 75.1 | 50-125 | | | |
| **Matrix Spike (B207193-MS1)** | | **Source: 18G0022-01** | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.133 | 0.0010 | µg/L | 0.208 | ND | 63.9 | 0-200 | | | |
| Dichlorobiphenyls | 0.162 | 0.0010 | µg/L | 0.208 | ND | 77.6 | 0-200 | | | |
| Trichlorobiphenyls | 0.149 | 0.0010 | µg/L | 0.208 | ND | 71.4 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.300 | 0.0021 | µg/L | 0.417 | ND | 72.0 | 0-200 | | | |
| Pentachlorobiphenyls | 0.309 | 0.0021 | µg/L | 0.417 | ND | 74.2 | 0-200 | | | |
| Hexachlorobiphenyls | 0.256 | 0.0021 | µg/L | 0.417 | ND | 61.5 | 0-200 | | | |
| Heptachlorobiphenyls | 0.374 | 0.0031 | µg/L | 0.625 | ND | 59.8 | 0-200 | | | |
| Octachlorobiphenyls | 0.334 | 0.0031 | µg/L | 0.625 | ND | 53.5 | 0-200 | | | |
| Nonachlorobiphenyls | 0.621 | 0.0052 | µg/L | 1.04 | ND | 59.7 | 0-200 | | | |
| Decachlorobiphenyl | 0.623 | 0.0052 | µg/L | 1.04 | ND | 59.8 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.153* | | µg/L | 0.208 | | 73.6 | 50-125 | | | |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B207193 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B207193-MSD1)** | | **Source: 18G0022-01** | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.135 | 0.0010 | µg/L | 0.204 | ND | 66.0 | 0-200 | 1.26 | | |
| Dichlorobiphenyls | 0.159 | 0.0010 | µg/L | 0.204 | ND | 77.7 | 0-200 | 1.96 | | |
| Trichlorobiphenyls | 0.147 | 0.0010 | µg/L | 0.204 | ND | 72.0 | 0-200 | 1.15 | | |
| Tetrachlorobiphenyls | 0.296 | 0.0020 | µg/L | 0.408 | ND | 72.6 | 0-200 | 1.19 | | |
| Pentachlorobiphenyls | 0.315 | 0.0020 | µg/L | 0.408 | ND | 77.2 | 0-200 | 1.82 | | |
| Hexachlorobiphenyls | 0.255 | 0.0020 | µg/L | 0.408 | ND | 62.6 | 0-200 | 0.312 | | |
| Heptachlorobiphenyls | 0.372 | 0.0031 | µg/L | 0.612 | ND | 60.8 | 0-200 | 0.387 | | |
| Octachlorobiphenyls | 0.336 | 0.0031 | µg/L | 0.612 | ND | 54.8 | 0-200 | 0.324 | | |
| Nonachlorobiphenyls | 0.634 | 0.0051 | µg/L | 1.02 | ND | 62.2 | 0-200 | 2.05 | | |
| Decachlorobiphenyl | 0.643 | 0.0051 | µg/L | 1.02 | ND | 63.0 | 0-200 | 3.09 | | |
| Surrogate: Tetrachloro-m-xylene | *0.152* | | µg/L | 0.204 | | 74.6 | 50-125 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2018 |

# CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

186022

Rev 04.05.12



Company Name: AECOM
Address: 500 Enterprise Dr.
Rocky Hill, CT 06067
Attention: Matthew Rood
Project Location: Greenwich, CT
Sampled By: S. Gish

Telephone: 860-263-5800
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: matthew.rood@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED: PCBs-680 Homologs (14 / 1 / A)

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs-680 Homologs | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-28-062918-1 | 6/28/18 | 1015 | | X | GW | U | ✓ | | | |
| 2 | MW 35-062918-1 | 6/29/18 | 1005 | | X | GW | U | X | | | |
| 3 | MW-AA19-062918-1 | 6/29/18 | 805 | | X | GW | U | X | | | |
| 4 | MW-F35-062918-1 | 6/29/18 | 910 | | X | GW | U | X | | | |
| 5 | MW-Y26-062918-1 | 6/29/18 | 820 | | X | GW | U | X | | | |

Comments: MS/MSD on MW-28-062918-1

Client is a municipality and is tax exempt. Please don't include tax on invoices.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| Relinquished by: (signature) | Date/Time: |
|---|---|
| Patty Fagan | |
| Received by: (signature) Joe Elo 7/2/18 | Date/Time: 10 30 |
| Relinquished by: (signature) Joe Elo 7/2/18 | Date/Time: 17.20 |
| Received by: (signature) 3.15.9 7-2-18 | Date/Time: 17:20 |

Turnaround ††
◉ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESD Date 7-2-18 Time 3.1

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 7 Actual Temp - 3.1
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? ~~T~~ F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? ~~F~~ T SE 7/2/18
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 14 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 6, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18F1321

Enclosed are results of analyses for samples received by the laboratory on June 26, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18F1321-01 5

18F1321-02 6

18F1321-03 7

18F1321-04 8

18F1321-05 9

18F1321-06 10

Sample Preparation Information 11

QC Data 12

PCB Homologues by GC/MS Water 12

B206932 12

B207193 12

Flag/Qualifier Summary 14

Certifications 15

Chain of Custody/Sample Receipt 16

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 7/6/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18F1321

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-Y9-062618-1 | 18F1321-01 | Ground Water | | EPA 680 Modified | |
| MW-Y9D-062618-1 | 18F1321-02 | Ground Water | | EPA 680 Modified | |
| MW-Y15-062618-1 | 18F1321-03 | Ground Water | | EPA 680 Modified | |
| MW-Y15D-062618-1 | 18F1321-04 | Ground Water | | EPA 680 Modified | |
| MW-X17-062618-1 | 18F1321-05 | Ground Water | | EPA 680 Modified | |
| MW-AA12D-062618-1 | 18F1321-06 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Octachlorobiphenyls**
S024974-CCV2

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1321

Date Received: 6/26/2018

**Field Sample #: MW-Y9-062618-1** | Sampled: 6/26/2018 12:10

**Sample ID: 18F1321-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:08 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 92.9 | 50-125 | | 7/2/18 15:08 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1321

Date Received: 6/26/2018

**Field Sample #: MW-Y9D-062618-1** | Sampled: 6/26/2018 11:55

**Sample ID: 18F1321-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 15:45 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 87.4 | 50-125 | | 7/2/18 15:45 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1321

Date Received: 6/26/2018

**Field Sample #: MW-Y15-062618-1** | Sampled: 6/26/2018 13:44

**Sample ID: 18F1321-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 8.0 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Dichlorobiphenyls | 7.2 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Trichlorobiphenyls | 1.1 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Tetrachlorobiphenyls | 0.15 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Pentachlorobiphenyls | 0.012 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |
| Total Polychlorinated biphenyls | 16 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 16:23 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 83.4 | 50-125 | | 7/2/18 16:23 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1321

Date Received: 6/26/2018

**Field Sample #: MW-Y15D-062618-1** | Sampled: 6/26/2018 13:15

**Sample ID: 18F1321-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.020 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Dichlorobiphenyls | 0.068 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Trichlorobiphenyls | 0.061 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Tetrachlorobiphenyls | 0.041 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Pentachlorobiphenyls | 0.0051 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |
| Total Polychlorinated biphenyls | 0.20 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:00 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 96.1 | 50-125 | | 7/2/18 17:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1321

Date Received: 6/26/2018

**Field Sample #: MW-X17-062618-1** | Sampled: 6/26/2018 14:35

**Sample ID: 18F1321-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0033 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Dichlorobiphenyls | 0.0056 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Trichlorobiphenyls | 0.0021 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Tetrachlorobiphenyls | 0.0022 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |
| Total Polychlorinated biphenyls | 0.013 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 17:38 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 86.1 | 50-125 | | 7/2/18 17:38 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1321

Date Received: 6/26/2018

**Field Sample #: MW-AA12D-062618-1** | Sampled: 6/26/2018 15:04

**Sample ID: 18F1321-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Dichlorobiphenyls | 0.0080 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Trichlorobiphenyls | 0.012 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Tetrachlorobiphenyls | 0.015 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |
| Total Polychlorinated biphenyls | 0.035 | | µg/L | 1 | | EPA 680 Modified | 7/3/18 | 7/5/18 16:18 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 74.7 | 50-125 | | 7/5/18 16:18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18F1321-01 [MW-Y9-062618-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1321-02 [MW-Y9D-062618-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1321-03 [MW-Y15-062618-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1321-04 [MW-Y15D-062618-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1321-05 [MW-X17-062618-1] | B206932 | 1000 | 1.00 | 06/29/18 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18F1321-06RE1 [MW-AA12D-062618-1] | B207193 | 1000 | 1.00 | 07/03/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B206932 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B206932-BLK1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.143* | | µg/L | 0.200 | | 71.7 | 50-125 | | | |
| **LCS (B206932-BS1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 66.0 | 40-140 | | | |
| Dichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.7 | 40-140 | | | |
| Trichlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 65.1 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.27 | 0.0020 | µg/L | 0.400 | | 66.5 | 40-140 | | | |
| Pentachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 68.8 | 40-140 | | | |
| Hexachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 79.6 | 40-140 | | | |
| Heptachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 76.1 | 40-140 | | | |
| Octachlorobiphenyls | 0.44 | 0.0030 | µg/L | 0.600 | | 73.2 | 40-140 | | | |
| Nonachlorobiphenyls | 0.72 | 0.0050 | µg/L | 1.00 | | 72.0 | 40-140 | | | |
| Decachlorobiphenyl | 0.71 | 0.0050 | µg/L | 1.00 | | 70.9 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.143* | | µg/L | 0.200 | | 71.5 | 50-125 | | | |
| **LCS Dup (B206932-BSD1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 71.7 | 40-140 | 8.20 | 50 | |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 74.8 | 40-140 | 6.98 | 50 | |
| Trichlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 67.4 | 40-140 | 3.36 | 50 | |
| Tetrachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 69.4 | 40-140 | 4.26 | 50 | |
| Pentachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.6 | 40-140 | 2.59 | 50 | |
| Hexachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 78.1 | 40-140 | 1.82 | 50 | |
| Heptachlorobiphenyls | 0.45 | 0.0030 | µg/L | 0.600 | | 74.8 | 40-140 | 1.65 | 50 | |
| Octachlorobiphenyls | 0.44 | 0.0030 | µg/L | 0.600 | | 73.8 | 40-140 | 0.809 | 50 | |
| Nonachlorobiphenyls | 0.73 | 0.0050 | µg/L | 1.00 | | 73.4 | 40-140 | 1.99 | 50 | |
| Decachlorobiphenyl | 0.73 | 0.0050 | µg/L | 1.00 | | 72.8 | 40-140 | 2.64 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.142* | | µg/L | 0.200 | | 71.2 | 50-125 | | | |
| **Batch B207193 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B207193-BLK1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B207193 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B207193-BLK1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.151* | | µg/L | 0.200 | | 75.7 | 50-125 | | | |
| **LCS (B207193-BS1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.0 | 40-140 | | | |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 78.9 | 40-140 | | | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 75.6 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 77.1 | 40-140 | | | |
| Pentachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.2 | 40-140 | | | |
| Hexachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.7 | 40-140 | | | |
| Heptachlorobiphenyls | 0.42 | 0.0030 | µg/L | 0.600 | | 69.2 | 40-140 | | | |
| Octachlorobiphenyls | 0.38 | 0.0030 | µg/L | 0.600 | | 63.4 | 40-140 | | | |
| Nonachlorobiphenyls | 0.71 | 0.0050 | µg/L | 1.00 | | 71.1 | 40-140 | | | |
| Decachlorobiphenyl | 0.72 | 0.0050 | µg/L | 1.00 | | 72.0 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.141* | | µg/L | 0.200 | | 70.6 | 50-125 | | | |
| **LCS Dup (B207193-BSD1)** | | | | Prepared: 07/03/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.1 | 40-140 | 0.144 | 50 | |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 82.1 | 40-140 | 3.98 | 50 | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 77.0 | 40-140 | 1.90 | 50 | |
| Tetrachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 78.2 | 40-140 | 1.38 | 50 | |
| Pentachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 81.1 | 40-140 | 2.54 | 50 | |
| Hexachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.7 | 40-140 | 0.0640 | 50 | |
| Heptachlorobiphenyls | 0.41 | 0.0030 | µg/L | 0.600 | | 68.4 | 40-140 | 1.15 | 50 | |
| Octachlorobiphenyls | 0.37 | 0.0030 | µg/L | 0.600 | | 61.3 | 40-140 | 3.48 | 50 | |
| Nonachlorobiphenyls | 0.69 | 0.0050 | µg/L | 1.00 | | 69.1 | 40-140 | 2.91 | 50 | |
| Decachlorobiphenyl | 0.70 | 0.0050 | µg/L | 1.00 | | 69.5 | 40-140 | 3.47 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.150* | | µg/L | 0.200 | | 75.1 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2018 |

ALB 18F1321

con-test® ANALYTICAL LABORATORY

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www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



Rev 04.05.12

Company Name: AECOM
Address: 500 Enterprise Dr.
Rocky Hill, CT 06067
Attention: Matthew Rood
Project Location: Greenwich, CT
Sampled By: S. Gish

Telephone: 860-263-5800
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: matthew.rood@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs-680 Homologs | | | | | | | | | | | # of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 12 | | | | | | | | | | | # of Containers |
| | | | | | | | | 1 | | | | | | | | | | | ** Preservation |
| | | | | | | | | A | | | | | | | | | | | ***Container Code |
| 01 | MW-Y9-062618-1 | 6/26/18 | 1210 | | X | GW | U | ✓ | | | | | | | | | | | |
| 02 | MW-Y9D-062618-1 | | 1155 | | X | GW | U | X | | | | | | | | | | | |
| 03 | MW-Y15-062618-1 | | 1344 | | X | GW | U | X | | | | | | | | | | | |
| 04 | MW-Y15D-062618-1 | | 1315 | | X | GW | U | X | | | | | | | | | | | |
| 05 | MW-X17-062618-1 | | 1435 | | X | GW | U | X | | | | | | | | | | | |
| 06 | MW-AA12D-062618-1 | ↓ | 1504 | | X | GW | U | X | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUESTED

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments:
Client is a municipality and is tax exempt. Please don't include tax on invoices.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| | | |
|---|---|---|
| Relinquished by: (signature) | Date/Time: 6/26/18 | |
| Received by: (signature) | Date/Time: 1320 | |
| Relinquished by: (signature) | Date/Time: 1325 | |
| Received by: (signature) Sam Zuniga 2.3 | Date/Time: 6/26/18 1825 | |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:*
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

**NELAC & AIHA-LAP, LLC Accredited**
**WBE/DBE Certified**

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** SE Date 6/26/18 Time 1825

How were the samples received? In Cooler T No Cooler ___ On Ice T No Ice ___
Direct from Sampling ___ Ambient ___ Melted Ice ___

Were samples within Temperature? 2-6°C T By Gun # 8 Actual Temp - 2.3
By Blank # ___ Actual Temp - ___

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ___
Are there Rushes? F Who was notified? ___
Are there Short Holds? F Who was notified? ___
Is there enough Volume? T
Is there Headspace where applicable? N/A MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? N/A
Do all samples have the proper pH? N/A Acid ___ Base ___

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 12 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 9, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18F1383

Enclosed are results of analyses for samples received by the laboratory on June 27, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18F1383-01 5

18F1383-02 6

Sample Preparation Information 7

QC Data 8

PCB Homologues by GC/MS Water 8

B206932 8

Flag/Qualifier Summary 9

Certifications 10

Chain of Custody/Sample Receipt 11

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 7/9/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18F1383

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AM21-062718-1 | 18F1383-01 | Ground Water | | EPA 680 Modified | |
| MW-AG10-062718-1 | 18F1383-02 | Ground Water | | EPA 680 Modified | |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1383

Date Received: 6/27/2018

**Field Sample #: MW-AM21-062718-1**
Sampled: 6/27/2018 12:30

**Sample ID: 18F1383-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Dichlorobiphenyls | 0.0015 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Trichlorobiphenyls | 0.0010 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Tetrachlorobiphenyls | 0.0038 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |
| Total Polychlorinated biphenyls | 0.0063 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 18:53 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 70.3 | 50-125 | | 7/2/18 18:53 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1383

Date Received: 6/27/2018

**Field Sample #: MW-AG10-062718-1**
Sampled: 6/27/2018 09:00

**Sample ID: 18F1383-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0061 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Dichlorobiphenyls | 0.048 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Trichlorobiphenyls | 0.030 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Tetrachlorobiphenyls | 0.027 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Pentachlorobiphenyls | 0.0040 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |
| Total Polychlorinated biphenyls | 0.12 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 19:30 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 63.9 | 50-125 | | 7/2/18 19:30 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18F1383-01 [MW-AM21-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1383-02 [MW-AG10-062718-1] | B206932 | 1020 | 1.00 | 06/29/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B206932 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B206932-BLK1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.143* | | µg/L | 0.200 | | 71.7 | 50-125 | | | |
| **LCS (B206932-BS1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 66.0 | 40-140 | | | |
| Dichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.7 | 40-140 | | | |
| Trichlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 65.1 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.27 | 0.0020 | µg/L | 0.400 | | 66.5 | 40-140 | | | |
| Pentachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 68.8 | 40-140 | | | |
| Hexachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 79.6 | 40-140 | | | |
| Heptachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 76.1 | 40-140 | | | |
| Octachlorobiphenyls | 0.44 | 0.0030 | µg/L | 0.600 | | 73.2 | 40-140 | | | |
| Nonachlorobiphenyls | 0.72 | 0.0050 | µg/L | 1.00 | | 72.0 | 40-140 | | | |
| Decachlorobiphenyl | 0.71 | 0.0050 | µg/L | 1.00 | | 70.9 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.143* | | µg/L | 0.200 | | 71.5 | 50-125 | | | |
| **LCS Dup (B206932-BSD1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 71.7 | 40-140 | 8.20 | 50 | |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 74.8 | 40-140 | 6.98 | 50 | |
| Trichlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 67.4 | 40-140 | 3.36 | 50 | |
| Tetrachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 69.4 | 40-140 | 4.26 | 50 | |
| Pentachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.6 | 40-140 | 2.59 | 50 | |
| Hexachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 78.1 | 40-140 | 1.82 | 50 | |
| Heptachlorobiphenyls | 0.45 | 0.0030 | µg/L | 0.600 | | 74.8 | 40-140 | 1.65 | 50 | |
| Octachlorobiphenyls | 0.44 | 0.0030 | µg/L | 0.600 | | 73.8 | 40-140 | 0.809 | 50 | |
| Nonachlorobiphenyls | 0.73 | 0.0050 | µg/L | 1.00 | | 73.4 | 40-140 | 1.99 | 50 | |
| Decachlorobiphenyl | 0.73 | 0.0050 | µg/L | 1.00 | | 72.8 | 40-140 | 2.64 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.142* | | µg/L | 0.200 | | 71.2 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2018 |

ALB

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

18F1383

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Dr.
Rocky Hill, CT 06067
Attention: Matthew Rood
Project Location: Greenwich, CT
Sampled By: S. Gish

Telephone: 860-263-5800
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: matthew.rood@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs-680 Homologs | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | MW-AM21-062718-1 | 6/27/18 | 1230 | | X | GW | U | ✔ | 1 | I | A |
| 02 | MW-AG10-062718-1 | 6/27/18 | 0900 | | X | GW | U | X | 1 | I | A |

ANALYSIS REQUESTED

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments:
Client is a municipality and is tax exempt. Please don't include tax on invoices.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| | | |
|---|---|---|
| Relinquished by: (signature) | Date/Time: 6/27/18 | |
| Received by: (signature) Tom Mau 6/27/18 | Date/Time: 1455 | |
| Relinquished by: (signature) Tom Mau 6/27/18 | Date/Time: 1745 | |
| Received by: (signature) Sam Zingio 6/27/18 | Date/Time: 1745 | |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:*
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** Aecm

**Received By** MP Date 06/27/18 Time 1745

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 7 Actual Temp - 2.5 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 4 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 9, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18F1384

Enclosed are results of analyses for samples received by the laboratory on June 27, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18F1384-01 5

18F1384-02 6

18F1384-03 7

18F1384-04 8

18F1384-05 9

18F1384-06 10

18F1384-07 11

18F1384-08 12

18F1384-09 13

Sample Preparation Information 14

QC Data 15

PCB Homologues by GC/MS Water 15

B206932 15

Flag/Qualifier Summary 16

Certifications 17

Chain of Custody/Sample Receipt 18

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 7/9/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18F1384

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AM16D-062718-1 | 18F1384-01 | Ground Water | | EPA 680 Modified | |
| MW-AP28-062718-1 | 18F1384-02 | Ground Water | | EPA 680 Modified | |
| MW-AJ19-062718-1 | 18F1384-03 | Ground Water | | EPA 680 Modified | |
| MW-AL10-062718-1 | 18F1384-04 | Ground Water | | EPA 680 Modified | |
| MW-AJB-062718-1 | 18F1384-05 | Ground Water | | EPA 680 Modified | |
| MW-AG30-062718-1 | 18F1384-06 | Ground Water | | EPA 680 Modified | |
| MW-AJBD-067218-1 | 18F1384-07 | Ground Water | | EPA 680 Modified | |
| MW-AV17-062718-1 | 18F1384-08 | Ground Water | | EPA 680 Modified | |
| MW-AE8-062718-1 | 18F1384-09 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Octachlorobiphenyls**
18F1384-05[MW-AJB-062718-1], 18F1384-07[MW-AJBD-067218-1], 18F1384-09[MW-AE8-062718-1], S025035-CCV1, S025035-CCV2

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
S024999-CCV1, S024999-CCV2

**Heptachlorobiphenyls**
S024999-CCV1, S024999-CCV2

**Hexachlorobiphenyls**
S024999-CCV1, S024999-CCV2

**Nonachlorobiphenyls**
S024999-CCV1, S024999-CCV2

**Octachlorobiphenyls**
S024999-CCV2

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AM16D-062718-1** | Sampled: 6/27/2018 14:08

**Sample ID: 18F1384-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Dichlorobiphenyls | 0.0011 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Tetrachlorobiphenyls | 0.0021 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |
| Total Polychlorinated biphenyls | 0.0033 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:08 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 71.7 | 50-125 | | 7/2/18 20:08 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AP28-062718-1** | Sampled: 6/27/2018 12:05

**Sample ID: 18F1384-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0029 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Dichlorobiphenyls | 0.0029 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |
| Total Polychlorinated biphenyls | 0.0057 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 20:45 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 80.0 | 50-125 | | 7/2/18 20:45 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AJ19-062718-1** | Sampled: 6/27/2018 10:40

**Sample ID: 18F1384-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Tetrachlorobiphenyls | 0.0026 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |
| Total Polychlorinated biphenyls | 0.0026 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:15 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 86.1 | 50-125 | | 7/2/18 23:15 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AL10-062718-1** | Sampled: 6/27/2018 09:25

**Sample ID: 18F1384-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/2/18 23:53 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 88.1 | 50-125 | | 7/2/18 23:53 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AJB-062718-1**
Sampled: 6/27/2018 07:50

**Sample ID: 18F1384-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Dichlorobiphenyls | 0.41 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Trichlorobiphenyls | 1.7 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Tetrachlorobiphenyls | 0.41 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Pentachlorobiphenyls | 0.052 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | V-05 | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |
| Total Polychlorinated biphenyls | 2.6 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 16:54 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 89.8 | 50-125 | | 7/6/18 16:54 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AG30-062718-1**
Sampled: 6/27/2018 11:15

**Sample ID: 18F1384-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 1:08 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 119 | 50-125 | | 7/3/18 1:08 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AJBD-067218-1**
Sampled: 6/27/2018 08:35

**Sample ID: 18F1384-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.076 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Dichlorobiphenyls | 0.42 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Trichlorobiphenyls | 0.24 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Tetrachlorobiphenyls | 0.038 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Pentachlorobiphenyls | 0.0064 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | V-05 | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |
| Total Polychlorinated biphenyls | 0.78 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 17:31 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 106 | 50-125 | | 7/6/18 17:31 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1384
Date Received: 6/27/2018
**Field Sample #: MW-AV17-062718-1**
Sampled: 6/27/2018 14:14
**Sample ID: 18F1384-08**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/3/18 2:22 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 98.5 | 50-125 | | 7/3/18 2:22 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1384

Date Received: 6/27/2018

**Field Sample #: MW-AE8-062718-1**
Sampled: 6/27/2018 10:16

**Sample ID: 18F1384-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Trichlorobiphenyls | 0.0039 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Tetrachlorobiphenyls | 0.025 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Pentachlorobiphenyls | 0.0083 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | V-05 | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |
| Total Polychlorinated biphenyls | 0.038 | | µg/L | 1 | | EPA 680 Modified | 6/29/18 | 7/6/18 18:09 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 90.0 | 50-125 | | 7/6/18 18:09 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18F1384-01 [MW-AM16D-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1384-02 [MW-AP28-062718-1] | B206932 | 1020 | 1.00 | 06/29/18 |
| 18F1384-03 [MW-AJ19-062718-1] | B206932 | 1020 | 1.00 | 06/29/18 |
| 18F1384-04 [MW-AL10-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1384-05 [MW-AJB-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1384-06 [MW-AG30-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1384-07 [MW-AJBD-067218-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1384-08 [MW-AV17-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |
| 18F1384-09 [MW-AE8-062718-1] | B206932 | 1000 | 1.00 | 06/29/18 |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B206932 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B206932-BLK1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.143* | | µg/L | 0.200 | | 71.7 | 50-125 | | | |
| **LCS (B206932-BS1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 66.0 | 40-140 | | | |
| Dichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 69.7 | 40-140 | | | |
| Trichlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 65.1 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.27 | 0.0020 | µg/L | 0.400 | | 66.5 | 40-140 | | | |
| Pentachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 68.8 | 40-140 | | | |
| Hexachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 79.6 | 40-140 | | | |
| Heptachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 76.1 | 40-140 | | | |
| Octachlorobiphenyls | 0.44 | 0.0030 | µg/L | 0.600 | | 73.2 | 40-140 | | | |
| Nonachlorobiphenyls | 0.72 | 0.0050 | µg/L | 1.00 | | 72.0 | 40-140 | | | |
| Decachlorobiphenyl | 0.71 | 0.0050 | µg/L | 1.00 | | 70.9 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.143* | | µg/L | 0.200 | | 71.5 | 50-125 | | | |
| **LCS Dup (B206932-BSD1)** | | | | Prepared: 06/29/18 Analyzed: 07/02/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 71.7 | 40-140 | 8.20 | 50 | |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 74.8 | 40-140 | 6.98 | 50 | |
| Trichlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 67.4 | 40-140 | 3.36 | 50 | |
| Tetrachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 69.4 | 40-140 | 4.26 | 50 | |
| Pentachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 70.6 | 40-140 | 2.59 | 50 | |
| Hexachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 78.1 | 40-140 | 1.82 | 50 | |
| Heptachlorobiphenyls | 0.45 | 0.0030 | µg/L | 0.600 | | 74.8 | 40-140 | 1.65 | 50 | |
| Octachlorobiphenyls | 0.44 | 0.0030 | µg/L | 0.600 | | 73.8 | 40-140 | 0.809 | 50 | |
| Nonachlorobiphenyls | 0.73 | 0.0050 | µg/L | 1.00 | | 73.4 | 40-140 | 1.99 | 50 | |
| Decachlorobiphenyl | 0.73 | 0.0050 | µg/L | 1.00 | | 72.8 | 40-140 | 2.64 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.142* | | µg/L | 0.200 | | 71.2 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2018 |

ALB 18F1384

# con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



Rev 04.05.12

Company Name: AECOM
Address: 500 Enterprise Dr.
Rocky Hill, CT 06067
Attention: Matthew Rood
Project Location: Greenwich, CT
Sampled By: S. Gish

Telephone: 860-263-5800
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: matthew.rood@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED: PCBs-680 Homologs

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs-680 Homologs | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 28 | | | | | | | | | | |
| | | | | | | | | I | | | | | | | | | | |
| | | | | | | | | A | | | | | | | | | | |
| 01 | MW-AM16D-062718-1 | 6/27/18 | 1408 | | X | GW | U | ✓ | | | | | | | | | | |
| 02 | ~~MW-AM16-062718-1~~ | | | | ~~X~~ | ~~GW~~ | ~~U~~ | ~~X~~ | | | | | | | | | | |
| 03 | MW-AP28-062718-1 | | 1205 | | X | GW | U | X | | | | | | | | | | |
| 04 | MW-AJ19-062718-1 | | 1040 | | X | GW | U | X | | | | | | | | | | |
| 05 | MW-AL10-062718-1 | | 925 | | X | GW | U | X | | | | | | | | | | |
| 06 | MW-AJ13-062718-1 | | 750 | | X | GW | U | X | | | | | | | | | | |
| 07 | MW-AG30-062718-1 | | 1115 | | X | GW | U | X | | | | | | | | | | |
| 08 | MW-AJ13D-062718-1 | | 835 | | X | GW | U | X | | | | | | | | | | |
| 09 | MW-AV17-062718-1 | | 1414 | | X | GW | U | X | | | | | | | | | | |
| 10 | MW-AE8-062718-1 | ↓ | 1016 | | X | GW | U | X | | | | | | | | | | |

Comments:
Client is a municipality and is tax exempt. Please don't include tax on invoices.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

# of Containers
** Preservation
***Container Code

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

*****Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

****Preservation**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

***Matrix Code:**
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| Relinquished by: (signature) | Date/Time: 6/27/18 |
|---|---|
| Received by: (signature) Tom Mauri 6/27/18 | Date/Time: 1455 |
| Relinquished by: (signature) Tom Mauri 6/27/18 | Date/Time: 1745 |
| Received by: (signature) Sam Eugis 2.8 6/27/18 | Date/Time: 1745 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:*
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** Accum

**Received By** MJP Date 6/27/18 Time 1745

How were the samples received? In Cooler T No Cooler ___ On Ice T No Ice ___
Direct from Sampling ___ Ambient ___ Melted Ice ___

Were samples within Temperature? 2-6°C T By Gun # 7 Actual Temp - 2.8
By Blank # ___ Actual Temp - ___

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ___
Are there Rushes? F Who was notified? ___
Are there Short Holds? F Who was notified? ___
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? NA Acid ___ Base ___

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 18 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 10, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18F1460

Enclosed are results of analyses for samples received by the laboratory on June 28, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18F1460-01 5

18F1460-02 6

18F1460-03 7

18F1460-04 8

18F1460-05 9

18F1460-06 10

18F1460-07 11

18F1460-08 12

18F1460-09 13

18F1460-10 14

Sample Preparation Information 15

QC Data 16

PCB Homologues by GC/MS Water 16

B207059 16

Flag/Qualifier Summary 18

Certifications 19

Chain of Custody/Sample Receipt 20

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 7/10/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18F1460

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-V18-062818-1 | 18F1460-01 | Ground Water | | EPA 680 Modified | |
| MW-T23-062818-1 | 18F1460-02 | Ground Water | | EPA 680 Modified | |
| MW-AH16R-062818-1 | 18F1460-03 | Ground Water | | EPA 680 Modified | |
| MW-AM16-062818-1 | 18F1460-04 | Ground Water | | EPA 680 Modified | |
| MW-AA12-062718-1 | 18F1460-05 | Ground Water | | EPA 680 Modified | |
| MW-P7-062818-1 | 18F1460-06 | Ground Water | | EPA 680 Modified | |
| MW-P11-062818-1 | 18F1460-07 | Ground Water | | EPA 680 Modified | |
| MW-S15-062818-1 | 18F1460-08 | Ground Water | | EPA 680 Modified | |
| MW-S15-062818-2 | 18F1460-09 | Ground Water | | EPA 680 Modified | |
| MW-L25-062818-1 | 18F1460-10 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**B**

Analyte is found in the associated laboratory blank as well as in the sample.

**Analyte & Samples(s) Qualified:**

**Monochlorobiphenyls**
18F1460-01[MW-V18-062818-1], 18F1460-02[MW-T23-062818-1], 18F1460-03[MW-AH16R-062818-1], 18F1460-04[MW-AM16-062818-1], 18F1460-05[MW-AA12-062718-1], 18F1460-06[MW-P7-062818-1], 18F1460-07[MW-P11-062818-1], 18F1460-09[MW-S15-062818-2], B207059-BLK1, B207059-BS1, B207059-BSD1, B207059-MS1, B207059-MSD1
**Total Polychlorinated biphenyls**
18F1460-01[MW-V18-062818-1], 18F1460-02[MW-T23-062818-1], 18F1460-03[MW-AH16R-062818-1], 18F1460-04[MW-AM16-062818-1], 18F1460-05[MW-AA12-062718-1], 18F1460-06[MW-P7-062818-1], 18F1460-07[MW-P11-062818-1], 18F1460-08[MW-S15-062818-1], 18F1460-09[MW-S15-062818-2]

**B-07**

Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank.

**Analyte & Samples(s) Qualified:**

**Monochlorobiphenyls**
18F1460-03[MW-AH16R-062818-1], 18F1460-05[MW-AA12-062718-1]

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Octachlorobiphenyls**
S024974-CCV2

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-V18-062818-1**
Sampled: 6/28/2018 11:40

**Sample ID: 18F1460-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0024 | 0.0010 | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Dichlorobiphenyls | 0.0073 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Trichlorobiphenyls | 0.016 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Tetrachlorobiphenyls | 0.0090 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |
| Total Polychlorinated biphenyls | 0.035 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/7/18 21:28 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 64.7 | 50-125 | | 7/7/18 21:28 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-T23-062818-1** | Sampled: 6/28/2018 10:40

**Sample ID: 18F1460-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0013 | 0.0010 | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Tetrachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |
| Total Polychlorinated biphenyls | 0.0013 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/7/18 22:06 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 73.3 | 50-125 | | 7/7/18 22:06 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-AH16R-062818-1** | Sampled: 6/28/2018 10:05

**Sample ID: 18F1460-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 5.6 | 0.0010 | µg/L | 1 | B-07, B | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Dichlorobiphenyls | 6.9 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Trichlorobiphenyls | 1.5 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Tetrachlorobiphenyls | 0.30 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Pentachlorobiphenyls | 0.033 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Hexachlorobiphenyls | 0.0050 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |
| Total Polychlorinated biphenyls | 14 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/9/18 13:46 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 55.5 | 50-125 | | 7/9/18 13:46 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460
Date Received: 6/28/2018
**Field Sample #: MW-AM16-062818-1**
Sampled: 6/28/2018 10:09
**Sample ID: 18F1460-04**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0068 | 0.0010 | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Dichlorobiphenyls | 0.017 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Trichlorobiphenyls | 0.027 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Tetrachlorobiphenyls | 0.047 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Pentachlorobiphenyls | 0.0073 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |
| Total Polychlorinated biphenyls | 0.11 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/7/18 23:57 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 65.4 | 50-125 | | 7/7/18 23:57 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-AA12-062718-1** | Sampled: 6/27/2018 11:00

**Sample ID: 18F1460-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.046 | 0.0010 | µg/L | 1 | B-07, B | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Dichlorobiphenyls | 0.96 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Trichlorobiphenyls | 0.63 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Tetrachlorobiphenyls | 0.26 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Pentachlorobiphenyls | 0.054 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Hexachlorobiphenyls | 0.0055 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |
| Total Polychlorinated biphenyls | 2.0 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 0:35 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 55.0 | 50-125 | | 7/8/18 0:35 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-P7-062818-1**
Sampled: 6/28/2018 11:00

**Sample ID: 18F1460-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0013 | 0.0010 | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Dichlorobiphenyls | 0.0027 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |
| Total Polychlorinated biphenyls | 0.0040 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 1:12 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 62.8 | 50-125 | | 7/8/18 1:12 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-P11-062818-1**
Sampled: 6/28/2018 12:00

**Sample ID: 18F1460-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0013 | 0.0010 | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Dichlorobiphenyls | 0.0030 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Tetrachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |
| Total Polychlorinated biphenyls | 0.0043 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 1:49 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 86.9 | 50-125 | | 7/8/18 1:49 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-S15-062818-1**
Sampled: 6/28/2018 12:35

**Sample ID: 18F1460-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Dichlorobiphenyls | 0.0049 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Trichlorobiphenyls | 0.013 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Tetrachlorobiphenyls | 0.015 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |
| Total Polychlorinated biphenyls | 0.033 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 2:27 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 58.8 | 50-125 | | 7/8/18 2:27 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-S15-062818-2**
Sampled: 6/28/2018 12:50

**Sample ID: 18F1460-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0042 | 0.0010 | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Dichlorobiphenyls | 0.0088 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Trichlorobiphenyls | 0.014 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Tetrachlorobiphenyls | 0.015 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Pentachlorobiphenyls | 0.0032 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |
| Total Polychlorinated biphenyls | 0.046 | | µg/L | 1 | B | EPA 680 Modified | 7/2/18 | 7/8/18 3:04 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 60.1 | 50-125 | | 7/8/18 3:04 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1460

Date Received: 6/28/2018

**Field Sample #: MW-L25-062818-1**
Sampled: 6/28/2018 14:00

**Sample ID: 18F1460-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 3:41 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 72.3 | 50-125 | | 7/8/18 3:41 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18F1460-01 [MW-V18-062818-1] | B207059 | 980 | 1.00 | 07/02/18 |
| 18F1460-02 [MW-T23-062818-1] | B207059 | 970 | 1.00 | 07/02/18 |
| 18F1460-03 [MW-AH16R-062818-1] | B207059 | 1000 | 1.00 | 07/02/18 |
| 18F1460-04 [MW-AM16-062818-1] | B207059 | 1000 | 1.00 | 07/02/18 |
| 18F1460-05 [MW-AA12-062718-1] | B207059 | 990 | 1.00 | 07/02/18 |
| 18F1460-06 [MW-P7-062818-1] | B207059 | 980 | 1.00 | 07/02/18 |
| 18F1460-07 [MW-P11-062818-1] | B207059 | 960 | 1.00 | 07/02/18 |
| 18F1460-08 [MW-S15-062818-1] | B207059 | 980 | 1.00 | 07/02/18 |
| 18F1460-09 [MW-S15-062818-2] | B207059 | 980 | 1.00 | 07/02/18 |
| 18F1460-10 [MW-L25-062818-1] | B207059 | 1000 | 1.00 | 07/02/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B207059 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B207059-BLK1)** | | | | Prepared: 07/02/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.0015 | 0.0010 | µg/L | | | | | | | B |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0015 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.193* | | µg/L | 0.200 | | 96.7 | 50-125 | | | |
| **LCS (B207059-BS1)** | | | | Prepared: 07/02/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 65.7 | 40-140 | | | B |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 75.7 | 40-140 | | | |
| Trichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 68.6 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 68.8 | 40-140 | | | |
| Pentachlorobiphenyls | 0.29 | 0.0020 | µg/L | 0.400 | | 71.8 | 40-140 | | | |
| Hexachlorobiphenyls | 0.24 | 0.0020 | µg/L | 0.400 | | 58.9 | 40-140 | | | |
| Heptachlorobiphenyls | 0.34 | 0.0030 | µg/L | 0.600 | | 56.9 | 40-140 | | | |
| Octachlorobiphenyls | 0.30 | 0.0030 | µg/L | 0.600 | | 50.1 | 40-140 | | | |
| Nonachlorobiphenyls | 0.55 | 0.0050 | µg/L | 1.00 | | 55.1 | 40-140 | | | |
| Decachlorobiphenyl | 0.54 | 0.0050 | µg/L | 1.00 | | 54.3 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.158* | | µg/L | 0.200 | | 78.9 | 50-125 | | | |
| **LCS Dup (B207059-BSD1)** | | | | Prepared: 07/02/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 70.0 | 40-140 | 6.39 | 50 | B |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 82.1 | 40-140 | 8.08 | 50 | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 72.6 | 40-140 | 5.69 | 50 | |
| Tetrachlorobiphenyls | 0.29 | 0.0020 | µg/L | 0.400 | | 73.3 | 40-140 | 6.25 | 50 | |
| Pentachlorobiphenyls | 0.30 | 0.0020 | µg/L | 0.400 | | 73.9 | 40-140 | 2.94 | 50 | |
| Hexachlorobiphenyls | 0.24 | 0.0020 | µg/L | 0.400 | | 61.1 | 40-140 | 3.58 | 50 | |
| Heptachlorobiphenyls | 0.35 | 0.0030 | µg/L | 0.600 | | 58.2 | 40-140 | 2.35 | 50 | |
| Octachlorobiphenyls | 0.30 | 0.0030 | µg/L | 0.600 | | 50.4 | 40-140 | 0.581 | 50 | |
| Nonachlorobiphenyls | 0.55 | 0.0050 | µg/L | 1.00 | | 54.6 | 40-140 | 0.861 | 50 | |
| Decachlorobiphenyl | 0.54 | 0.0050 | µg/L | 1.00 | | 53.5 | 40-140 | 1.42 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.163* | | µg/L | 0.200 | | 81.5 | 50-125 | | | |
| **Matrix Spike (B207059-MS1)** | | **Source: 18F1460-10** | | Prepared: 07/02/18 Analyzed: 07/08/18 | | | | | | |
| Monochlorobiphenyls | 0.130 | 0.0010 | µg/L | 0.206 | ND | 62.9 | 0-200 | | | B |
| Dichlorobiphenyls | 0.152 | 0.0010 | µg/L | 0.206 | ND | 73.5 | 0-200 | | | |
| Trichlorobiphenyls | 0.144 | 0.0010 | µg/L | 0.206 | ND | 70.0 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.288 | 0.0021 | µg/L | 0.412 | ND | 69.8 | 0-200 | | | |
| Pentachlorobiphenyls | 0.305 | 0.0021 | µg/L | 0.412 | ND | 73.9 | 0-200 | | | |
| Hexachlorobiphenyls | 0.305 | 0.0021 | µg/L | 0.412 | ND | 74.1 | 0-200 | | | |
| Heptachlorobiphenyls | 0.438 | 0.0031 | µg/L | 0.619 | ND | 70.7 | 0-200 | | | |
| Octachlorobiphenyls | 0.416 | 0.0031 | µg/L | 0.619 | ND | 67.3 | 0-200 | | | |
| Nonachlorobiphenyls | 0.751 | 0.0052 | µg/L | 1.03 | ND | 72.8 | 0-200 | | | |
| Decachlorobiphenyl | 0.761 | 0.0052 | µg/L | 1.03 | ND | 73.8 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.145* | | µg/L | 0.206 | | 70.3 | 50-125 | | | |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B207059 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B207059-MSD1)** | | **Source: 18F1460-10** | | Prepared: 07/02/18 Analyzed: 07/08/18 | | | | | | |
| Monochlorobiphenyls | 0.122 | 0.0010 | µg/L | 0.206 | ND | 59.4 | 0-200 | 5.83 | | B |
| Dichlorobiphenyls | 0.142 | 0.0010 | µg/L | 0.206 | ND | 69.0 | 0-200 | 6.25 | | |
| Trichlorobiphenyls | 0.136 | 0.0010 | µg/L | 0.206 | ND | 66.2 | 0-200 | 5.59 | | |
| Tetrachlorobiphenyls | 0.273 | 0.0021 | µg/L | 0.412 | ND | 66.3 | 0-200 | 5.18 | | |
| Pentachlorobiphenyls | 0.294 | 0.0021 | µg/L | 0.412 | ND | 71.3 | 0-200 | 3.56 | | |
| Hexachlorobiphenyls | 0.296 | 0.0021 | µg/L | 0.412 | ND | 71.8 | 0-200 | 3.18 | | |
| Heptachlorobiphenyls | 0.424 | 0.0031 | µg/L | 0.619 | ND | 68.6 | 0-200 | 3.11 | | |
| Octachlorobiphenyls | 0.404 | 0.0031 | µg/L | 0.619 | ND | 65.3 | 0-200 | 3.03 | | |
| Nonachlorobiphenyls | 0.732 | 0.0052 | µg/L | 1.03 | ND | 71.0 | 0-200 | 2.51 | | |
| Decachlorobiphenyl | 0.740 | 0.0052 | µg/L | 1.03 | ND | 71.7 | 0-200 | 2.86 | | |
| Surrogate: Tetrachloro-m-xylene | *0.138* | | µg/L | 0.206 | | 67.0 | 50-125 | | | |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| B | Analyte is found in the associated laboratory blank as well as in the sample. |
| B-07 | Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2018 |

AL B

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

18f1460

# CHAIN OF CUSTODY RECORD

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Dr.
Rocky Hill, CT 06067
Attention: Matthew Rood
Project Location: Greenwich, CT
Sampled By: S. Gish

Telephone: 860-263-5800
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: matthew.rood@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED: PCBs-680 Homologs (24 I A)

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs-680 Homologs | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-V18-062818-1 | 6/28/18 | 8140 | | X | GW | U | ✔ | 24 | I | A |
| 2 | MW-T23-062818-1 | 6/28/18 | 1040 | | X | GW | U | X | 24 | I | A |
| 3 | MW-AH16R-062818-1 | 6/28/18 | 1005 | | X | GW | U | X | 24 | I | A |
| 4 | MW-AM16-062818-1 | 6/28/18 | 1009 | | X | GW | U | X | 24 | I | A |
| 5 | MW-AA12-062718-1 | 6/27/18 | 1100 | | X | GW | U | X | 24 | I | A |
| 6 | MW-P7-062818-1 | 6/28/18 | 1100 | | X | GW | U | X | 24 | I | A |
| 7 | MW-P11-062818-1 | 6/28/18 | 1200 | | X | GW | U | X | 24 | I | A |
| 8 | MW-S15-062818-1 | 6/28/18 | 1235 | | X | GW | U | X | 24 | I | A |
| 9 | MW-S15-062818-2 | 6/28/18 | 1250 | | X | GW | U | X | 24 | I | A |
| 10 | MW-L25-062818-1 | 6/28/18 | 1400 | | X | GW | U | X | 24 | I | A |

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments:
Client is a municipality and is tax exempt. Please don't include tax on invoices.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| [signature] 1355 | 6/28/18 |
| Received by: (signature) 1355 | Date/Time: 6/28/18 |
| Relinquished by: (signature) 1930 | Date/Time: 6-28-18 |
| Received by: (signature) 3.5 15.8 19.3 | Date/Time: 6-28-18 |

Turnaround ††
◉ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut:
Other:

Is your project MCP or RCP ?
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESP Date 6-28-18 Time 19:30

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 7 Actual Temp - 3.5/5.8
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NP Were Samples Tampered with? NP
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? T Acid pH 2 Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 24 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

July 10, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18F1461

Enclosed are results of analyses for samples received by the laboratory on June 28, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18F1461-01 5

18F1461-02 6

Sample Preparation Information 7

QC Data 8

PCB Homologues by GC/MS Water 8

B207059 8

Flag/Qualifier Summary 9

Certifications 10

Chain of Custody/Sample Receipt 11

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 7/10/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18F1461

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-R20-062818-1 | 18F1461-01 | Ground Water | | EPA 680 Modified | |
| MW-R20-062818-2 | 18F1461-02 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**B**

Analyte is found in the associated laboratory blank as well as in the sample.

**Analyte & Samples(s) Qualified:**

**Monochlorobiphenyls**
B207059-BLK1, B207059-BS1, B207059-BSD1

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Octachlorobiphenyls**
S024974-CCV2

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18F1461

Date Received: 6/28/2018

**Field Sample #: MW-R20-062818-1**
Sampled: 6/28/2018 13:32

**Sample ID: 18F1461-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:19 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 87.3 | 50-125 | | 7/8/18 4:19 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18F1461

Date Received: 6/28/2018

**Field Sample #: MW-R20-062818-2** | Sampled: 6/28/2018 13:47

**Sample ID: 18F1461-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 7/2/18 | 7/8/18 4:56 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.3 | 50-125 | | 7/8/18 4:56 |

con-test® ANALYTICAL LABORATORY

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## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18F1461-01 [MW-R20-062818-1] | B207059 | 980 | 1.00 | 07/02/18 |
| 18F1461-02 [MW-R20-062818-2] | B207059 | 980 | 1.00 | 07/02/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B207059 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B207059-BLK1)** | | | | Prepared: 07/02/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.0015 | 0.0010 | µg/L | | | | | | | B |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0015 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.193* | | µg/L | 0.200 | | 96.7 | 50-125 | | | |
| **LCS (B207059-BS1)** | | | | Prepared: 07/02/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 65.7 | 40-140 | | | B |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 75.7 | 40-140 | | | |
| Trichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 68.6 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.28 | 0.0020 | µg/L | 0.400 | | 68.8 | 40-140 | | | |
| Pentachlorobiphenyls | 0.29 | 0.0020 | µg/L | 0.400 | | 71.8 | 40-140 | | | |
| Hexachlorobiphenyls | 0.24 | 0.0020 | µg/L | 0.400 | | 58.9 | 40-140 | | | |
| Heptachlorobiphenyls | 0.34 | 0.0030 | µg/L | 0.600 | | 56.9 | 40-140 | | | |
| Octachlorobiphenyls | 0.30 | 0.0030 | µg/L | 0.600 | | 50.1 | 40-140 | | | |
| Nonachlorobiphenyls | 0.55 | 0.0050 | µg/L | 1.00 | | 55.1 | 40-140 | | | |
| Decachlorobiphenyl | 0.54 | 0.0050 | µg/L | 1.00 | | 54.3 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.158* | | µg/L | 0.200 | | 78.9 | 50-125 | | | |
| **LCS Dup (B207059-BSD1)** | | | | Prepared: 07/02/18 Analyzed: 07/05/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 70.0 | 40-140 | 6.39 | 50 | B |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 82.1 | 40-140 | 8.08 | 50 | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 72.6 | 40-140 | 5.69 | 50 | |
| Tetrachlorobiphenyls | 0.29 | 0.0020 | µg/L | 0.400 | | 73.3 | 40-140 | 6.25 | 50 | |
| Pentachlorobiphenyls | 0.30 | 0.0020 | µg/L | 0.400 | | 73.9 | 40-140 | 2.94 | 50 | |
| Hexachlorobiphenyls | 0.24 | 0.0020 | µg/L | 0.400 | | 61.1 | 40-140 | 3.58 | 50 | |
| Heptachlorobiphenyls | 0.35 | 0.0030 | µg/L | 0.600 | | 58.2 | 40-140 | 2.35 | 50 | |
| Octachlorobiphenyls | 0.30 | 0.0030 | µg/L | 0.600 | | 50.4 | 40-140 | 0.581 | 50 | |
| Nonachlorobiphenyls | 0.55 | 0.0050 | µg/L | 1.00 | | 54.6 | 40-140 | 0.861 | 50 | |
| Decachlorobiphenyl | 0.54 | 0.0050 | µg/L | 1.00 | | 53.5 | 40-140 | 1.42 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.163* | | µg/L | 0.200 | | 81.5 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| B | Analyte is found in the associated laboratory blank as well as in the sample. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2018 |

ALD

18P1461

# CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

39 Spruce Street
East longmeadow, MA 01028

Rev 04.05.12



Company Name: AECOM
Address: 500 Enterprise Dr.
Rocky Hill, CT 06067
Attention: Matthew Rood
Project Location: Greenwich, CT
Sampled By: S. Gish

Telephone: 860-263-5800
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ◉ WEBSITE
Fax #
Email: matthew.rood@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
○ OTHER
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs-680 Homologs | | | | | | | | | | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 1 | | | | | | | | | | 1 | I | A |
| 1 | MW-R20-062818-1 | 6/28/18 | 1332 | | X | GW | U | ✓ | | | | | | | | | | | | |
| 2 | MW-R20-062818-2 | 6/28/18 | 1347 | | X | GW | U | ✓ | | | | | | | | | | | | |

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments:
Client is a municipality and is tax exempt. Please don't include tax on invoices.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| 19:39 | 6/28/18 |
| Received by: (signature) 1555 | Date/Time: 6-28-18 |
| Relinquished by: (signature) 1930 | Date/Time: 6-28-18 |
| Received by: (signature) 2.3 19:30 | Date/Time: 6-28-18 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
Massachusetts:
Connecticut:
Other:

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESO Date 6-29-19 Time 19:30

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 7 Actual Temp - 2.3
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NP Were Samples Tampered with? NP
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? P
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? P
Do all samples have the proper pH? NP Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 4 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

PHOENIX
Environmental Laboratories, Inc.

**Wednesday, July 11, 2018**

**Attn: Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: 60432356**
**Sample ID#s: CA81516 - CA81517**

**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**

**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

July 11, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/29/18 | 10:15 |
| Location Code: | AECOM-CT | Received by: | CP | 06/29/18 | 16:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA81516
Phoenix ID: CA81516

Project ID: 60432356
Client ID: MW-28-062918-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.064 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/03/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.001 | 0.001 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | 0.003 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/03/18 | I/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| Client MS/MSD | Completed | | | | 07/03/18 | | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-28-062918-1

Phoenix I.D.: CA81516

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 66 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 86 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 61 | | % | 1 | 07/03/18 | 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:

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 11, 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

July 11, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/29/18 | 10:05 |
| Location Code: | AECOM-CT | Received by: | CP | 06/29/18 | 16:12 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA81516
Phoenix ID: CA81517

Project ID: 60432356
Client ID: MW-35-062918-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.568 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/05/18 | RS | SW7470A |
| Nickel | 0.006 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.001 | 0.001 | mg/L | 5 | 07/05/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/05/18 | I/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/02/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 07/02/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-35-062918-1

Phoenix I.D.: CA81517

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 66 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 70 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 101 | | % | 1 | 07/03/18 | 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:

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 11, 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

July 11, 2018

## QA/QC Data

SDG I.D.: GCA81516

| 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 436857 (mg/L), QC Sample No: CA81516 (CA81516) | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | 0.012 | NC | 99.8 | | | 102 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 92.5 | | | 94.4 | | | 75 - 125 | 20 |
| Barium | BRL | 0.002 | 0.064 | 0.063 | 1.60 | 100 | | | 96.6 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 93.5 | | | 94.8 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 90.4 | | | 92.2 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 92.6 | | | 93.3 | | | 75 - 125 | 20 |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 99.8 | | | 98.2 | | | 75 - 125 | 20 |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 92.0 | | | 92.4 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.001 | <0.001 | <0.001 | NC | 94.2 | | | 94.5 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 90.2 | | | 90.8 | | | 75 - 125 | 20 |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 91.6 | | | 92.2 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 93.7 | | | 94.2 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.002 | 0.003 | 0.003 | NC | 96.1 | | | 93.6 | | | 75 - 125 | 20 |
| QA/QC Batch 436858 (mg/L), QC Sample No: CA81516 5X (CA81516) | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.001 | <0.0005 | NC | 105 | | | 103 | | | 75 - 125 | 20 |
| QA/QC Batch 437044 (mg/L), QC Sample No: CA81516 (CA81516) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 84.9 | | | 81.1 | | | 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 436854 (mg/L), QC Sample No: CA81517 (CA81517) | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 103 | | | 105 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 95.1 | | | 98.0 | | | 75 - 125 | 20 |
| Barium | BRL | 0.002 | 0.568 | 0.560 | 1.40 | 100 | | | 90.8 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 97.7 | | | 96.8 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 96.4 | | | 92.9 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 96.4 | | | 94.4 | | | 75 - 125 | 20 |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 97.2 | | | 99.6 | | | 75 - 125 | 20 |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 96.7 | | | 93.7 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.001 | 0.006 | 0.006 | 0 | 98.5 | | | 94.2 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 92.9 | | | 94.0 | | | 75 - 125 | 20 |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 92.7 | | | 96.2 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 96.7 | | | 96.4 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.002 | <0.002 | <0.002 | NC | 94.4 | | | 95.4 | | | 75 - 125 | 20 |
| QA/QC Batch 437128 (mg/L), QC Sample No: CA81517 5X (CA81517) | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.001 | 0.0006 | NC | 102 | | | 95.6 | | | 75 - 125 | 20 |

# QA/QC Data

SDG I.D.: GCA81516

| 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 437065 (mg/L), QC Sample No: CA81517 (CA81517) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 82.3 | | | 86.9 | | | 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%.

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# QA/QC Report

July 11, 2018

## QA/QC Data

SDG I.D.: GCA81516

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 437117 (ug/L), QC Sample No: CA80502 (CA81517) | | | | | | | | | | | |
| **Semivolatiles by SIM - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 47 | 48 | 2.1 | | | | 30 - 130 | 20 | |
| Acenaphthene | ND | 0.05 | 62 | 72 | 14.9 | | | | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 24 | 64 | 90.9 | | | | 30 - 130 | 20 | l,r |
| Anthracene | ND | 0.02 | 69 | 74 | 7.0 | | | | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 77 | 80 | 3.8 | | | | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 65 | 74 | 12.9 | | | | 30 - 130 | 20 | |
| Benzo(b)fluoranthene | ND | 0.02 | 89 | 84 | 5.8 | | | | 30 - 130 | 20 | |
| Benzo(ghi)perylene | ND | 0.02 | 66 | 68 | 3.0 | | | | 30 - 130 | 20 | |
| Benzo(k)fluoranthene | ND | 0.02 | 86 | 90 | 4.5 | | | | 30 - 130 | 20 | |
| Chrysene | ND | 0.02 | 78 | 80 | 2.5 | | | | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 80 | 81 | 1.2 | | | | 30 - 130 | 20 | |
| Fluoranthene | ND | 0.04 | 77 | 78 | 1.3 | | | | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 68 | 73 | 7.1 | | | | 30 - 130 | 20 | |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 73 | 75 | 2.7 | | | | 30 - 130 | 20 | |
| Naphthalene | ND | 0.05 | 48 | 49 | 2.1 | | | | 30 - 130 | 20 | |
| Phenanthrene | ND | 0.05 | 71 | 73 | 2.8 | | | | 30 - 130 | 20 | |
| Pyrene | ND | 0.02 | 77 | 82 | 6.3 | | | | 30 - 130 | 20 | |
| % 2-Fluorobiphenyl | 75 | % | 59 | 71 | 18.5 | | | | 30 - 130 | 20 | |
| % Nitrobenzene-d5 | 84 | % | 53 | 65 | 20.3 | | | | 30 - 130 | 20 | |
| % Terphenyl-d14 | 81 | % | 80 | 80 | 0.0 | | | | 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%)

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 437014 (ug/L), QC Sample No: CA81516 (CA81516) | | | | | | | | | | | |
| **Semivolatiles by SIM - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 56 | 58 | 3.5 | 48 | 44 | 8.7 | 30 - 130 | 20 | |
| Acenaphthene | ND | 0.05 | 71 | 76 | 6.8 | 71 | 74 | 4.1 | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 59 | 63 | 6.6 | 62 | 65 | 4.7 | 30 - 130 | 20 | |
| Anthracene | ND | 0.02 | 69 | 66 | 4.4 | 73 | 71 | 2.8 | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 76 | 77 | 1.3 | 81 | 70 | 14.6 | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 91 | 94 | 3.2 | 77 | 57 | 29.9 | 30 - 130 | 20 | r |
| Benzo(b)fluoranthene | ND | 0.02 | 115 | 118 | 2.6 | 81 | 61 | 28.2 | 30 - 130 | 20 | r |
| Benzo(ghi)perylene | ND | 0.02 | 87 | 88 | 1.1 | 81 | 55 | 38.2 | 30 - 130 | 20 | r |
| Benzo(k)fluoranthene | ND | 0.02 | 94 | 99 | 5.2 | 79 | 60 | 27.3 | 30 - 130 | 20 | r |
| Chrysene | ND | 0.02 | 83 | 81 | 2.4 | 82 | 69 | 17.2 | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 110 | 109 | 0.9 | 111 | 73 | 41.3 | 30 - 130 | 20 | r |
| Fluoranthene | ND | 0.04 | 74 | 73 | 1.4 | 69 | 63 | 9.1 | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 71 | 72 | 1.4 | 76 | 76 | 0.0 | 30 - 130 | 20 | |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 106 | 106 | 0.0 | 97 | 65 | 39.5 | 30 - 130 | 20 | r |

# QA/QC Data

SDG I.D.: GCA81516

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Naphthalene | ND | 0.05 | 50 | 56 | 11.3 | 42 | 49 | 15.4 | 30 - 130 | 20 |
| Phenanthrene | ND | 0.05 | 68 | 66 | 3.0 | 73 | 72 | 1.4 | 30 - 130 | 20 |
| Pyrene | ND | 0.02 | 71 | 75 | 5.5 | 66 | 60 | 9.5 | 30 - 130 | 20 |
| % 2-Fluorobiphenyl | 68 | % | 71 | 77 | 8.1 | 64 | 70 | 9.0 | 30 - 130 | 20 |
| % Nitrobenzene-d5 | 71 | % | 60 | 58 | 3.4 | 60 | 71 | 16.8 | 30 - 130 | 20 |
| % Terphenyl-d14 | 86 | % | 81 | 86 | 6.0 | 67 | 55 | 19.7 | 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
July 11, 2018

Wednesday, July 11, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCA81516 - AECOM-CT

| 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:*** AECOM

***Project Location:*** 60432356 ***Project Number:***

***Laboratory Sample ID(s):*** CA81516, CA81517 ***Sampling Date(s):*** 6/29/2018

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

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

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

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

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

**Printed Name:** Maryam Taylor **Date:** Wednesday, July 11, 2018

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

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

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

# RCP Certification Report

July 11, 2018

SDG I.D.: GCA81516

## *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).

## *Mercury Narration*

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

### Instrument:

**MERLIN 07/03/18 07:43** Rick Schweitzer, Chemist 07/03/18

CA81516

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 07/05/18 07:46** Rick Schweitzer, Chemist 07/05/18

CA81517

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 437044 (CA81516)**

CA81516

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%.

**Batch 437065 (CA81517)**

CA81517

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*

**Environmental Laboratories, Inc.**
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# Certification Report

July 11, 2018

SDG I.D.: GCA81516

## *ICP Metals Narration*

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

### Instrument:

**BLUE 06/30/18 07:02** Mike Arsenault, Chemist 06/30/18

CA81516, CA81517

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

### QC (Site Specific):

**Batch 436854 (CA81517)**

CA81517

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 436857 (CA81516)**

CA81516

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS 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 07/03/18 11:56** Cindy Pearce, Chemist 07/03/18

CA81516

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 07/05/18 15:58** Cindy Pearce, Chemist 07/05/18

CA81517

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):

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

July 11, 2018

SDG I.D.: GCA81516

## *ICPMS Metals Narration*

**Batch 436858 (CA81516)**

CA81516

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 437128 (CA81517)**

CA81517

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

## *SVOASIM Narration*

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

**QC Batch 437014 (Samples: CA81516): -----**

**The MS/MSD 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. (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene)**

**QC Batch 437117 (Samples: CA81517): -----**

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

**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. (Acenaphthylene)**

**Instrument:**

**CHEM07 07/03/18-1** Damien Drobinski, Chemist 07/03/18

CA81517

Initial Calibration Verification (CHEM07/SIM_0627):
96% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM07/0703_02-SIM_0627):
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.

**CHEM25 07/02/18-1** Damien Drobinski, Chemist 07/02/18

CA81516

Initial Calibration Verification (CHEM25/SIM_0702):
98% of target compounds met criteria.

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# RCP Certification Report

July 11, 2018

SDG I.D.: GCA81516

## *SVOASIM Narration*

The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/0702_13-SIM_0702):
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 437117 (CA80502)**

CA81517

All LCS recoveries were within 30 - 130 with the following exceptions: Acenaphthylene(24%)
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: Acenaphthylene(90.9%)
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%)

### QC (Site Specific):

**Batch 437014 (CA81516)**

CA81516

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.
All MS recoveries were within 30 - 130 with the following exceptions: None.
All MSD recoveries were within 30 - 130 with the following exceptions: None.
All MS/MSD RPDs were less than 20% with the following exceptions: Benzo(a)pyrene(29.9%), Benzo(b)fluoranthene(28.2%), Benzo(ghi)perylene(38.2%), Benzo(k)fluoranthene(27.3%), Dibenz(a,h)anthracene(41.3%), Indeno(1,2,3-cd)pyrene(39.5%)
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%)

## *Temperature Narration*

The samples were received at 5.2C 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**

Temp 5.2 Pg of

**Data Delivery:**
☐ Fax: WCIP
☒ Email Matthew.rood@aecom.com

Customer: AECOM
Address: 500 Enterprise Dr. Suite 1A
Rocky Hill CT 06067

Project: 60432356
Report to: AECOM Matthew Rood
Invoice to: AECOM Matthew Rood

Project P.O:
Phone #: 860-263-5800
Fax #: 860-263-5777

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=drinking water **WW**=wastewater **S**=soil/solid **O**=oil
**GW**=groundwater **SL**=sludge **A**=air **X**=other

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | PAHs-SIM | CT RSR Metals | + | + | + | + | + | + | + | + | + | + | Soil VOA Vials [ ] methanol [ ] Sod Bisulfa | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [X] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 81516 | MW-28-062918-1 | GW | 6/29/18 | 1015 | X | X | | | | | | | | | | | | | | | | 3 | | 3 | | |
| 81517 | MW-35-062918-1 | GW | 6/29/18 | 1005 | X | X | | | | | | | | | | | | | | | | 1 | | 1 | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| Scott Gish | Katrina Frazer | | |
| Katrina Frazer | TT Ann | 6/29/18 | 1612 |
| | | | |

**Comments, Special Requirements or Regulations:**

Client is a municipality and is tax exempt. Please don't include tax on invoices.

GWPC/SWPC criteria must be met for reporting limits.

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

* SURCHARGE APPLIES

**CT/RI**
☒ RCP Cert
☒ GW Protect
☐ GA Mobility
☐ GB Mobility
☒ SW Protection
☐ Res. Vol.
☐ Ind. Vol.
☐ Res. Criteria
☐ Other

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

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

**Data Package**
☐ ASP-A
☐ NJ Reduced Deliv. *
☐ NJ Hazsite EDD
☐ Phoenix Std Report
☐ Other

**State where samples were collected:** CT

PHOENIX
Environmental Laboratories, Inc.

**Monday, July 02, 2018**

**Attn: Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: 60432356**
**Sample ID#s: CA78631 - CA78632**

**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**

**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

July 02, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/26/18 | 13:44 |
| Location Code: | AECOM-CT | Received by: | CP | 06/26/18 | 16:57 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA78631
Phoenix ID: CA78631

Project ID: 60432356
Client ID: MW-Y15-062618-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Barium | 0.700 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 06/29/18 | RS | SW7470A |
| Nickel | 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 06/28/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Zinc | 0.007 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 06/29/18 | Q/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 06/26/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/27/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/26/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | 0.13 | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Acenaphthene | 0.51 | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Anthracene | 0.09 | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-Y15-062618-1

Phoenix I.D.: CA78631

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Fluorene | 0.27 | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Phenanthrene | 0.10 | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 53 | | % | 1 | 06/27/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 76 | | % | 1 | 06/27/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 41 | | % | 1 | 06/27/18 | 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:

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 02, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

July 02, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/26/18 | 12:10 |
| Location Code: | AECOM-CT | Received by: | CP | 06/26/18 | 16:57 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA78631
Phoenix ID: CA78632

Project ID: 60432356
Client ID: MW-Y9-062618-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Arsenic | 0.005 | 0.004 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Barium | 0.886 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 06/29/18 | RS | SW7470A |
| Nickel | 0.003 | 0.001 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 06/28/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Zinc | 0.005 | 0.002 | mg/L | 1 | 06/28/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 06/29/18 | Q/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 06/26/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/27/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/26/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-Y9-062618-1

Phoenix I.D.: CA78632

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 06/27/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 67 | | % | 1 | 06/27/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 75 | | % | 1 | 06/27/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 49 | | % | 1 | 06/27/18 | 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:

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 02, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# QA/QC Report

July 02, 2018

## QA/QC Data

SDG I.D.: GCA78631

| 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 436430 (mg/L), QC Sample No: CA75265 (CA78631, CA78632) | | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 105 | | | 109 | | | 75 - 125 | 20 | |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 98.8 | | | 105 | | | 75 - 125 | 20 | |
| Barium | BRL | 0.002 | 0.293 | 0.299 | 2.00 | 107 | | | 98.6 | | | 75 - 125 | 20 | |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 101 | | | 106 | | | 75 - 125 | 20 | |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 99.2 | | | 103 | | | 75 - 125 | 20 | |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 99.8 | | | 103 | | | 75 - 125 | 20 | |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 104 | | | 103 | | | 75 - 125 | 20 | |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 99.0 | | | 102 | | | 75 - 125 | 20 | |
| Nickel | BRL | 0.001 | <0.001 | <0.001 | NC | 102 | | | 104 | | | 75 - 125 | 20 | |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 96.3 | | | 101 | | | 75 - 125 | 20 | |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 99.3 | | | 102 | | | 75 - 125 | 20 | |
| Vanadium | BRL | 0.002 | 0.002 | 0.003 | NC | 100 | | | 103 | | | 75 - 125 | 20 | |
| Zinc | BRL | 0.002 | 0.009 | 0.010 | NC | 98.6 | | | 105 | | | 75 - 125 | 20 | |
| QA/QC Batch 436299 (mg/L), QC Sample No: CA78631 5X (CA78631, CA78632) | | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 102 | | | 96.8 | | | 75 - 125 | 20 | |
| QA/QC Batch 436527 (mg/L), QC Sample No: CA78631 (CA78631, CA78632) | | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 85.1 | | | 73.5 | | | 80 - 120 | 20 | m |

Comment:

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

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

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 02, 2018

## QA/QC Data

SDG I.D.: GCA78631

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 436241 (ug/L), QC Sample No: CA77378 (CA78631, CA78632) | | | | | | | | | | |
| **Semivolatiles by SIM - Ground Water** | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 55 | 57 | 3.6 | | | | 30 - 130 | 20 |
| Acenaphthene | ND | 0.05 | 68 | 67 | 1.5 | | | | 30 - 130 | 20 |
| Acenaphthylene | ND | 0.04 | 62 | 64 | 3.2 | | | | 30 - 130 | 20 |
| Anthracene | ND | 0.02 | 73 | 70 | 4.2 | | | | 30 - 130 | 20 |
| Benz(a)anthracene | ND | 0.02 | 81 | 96 | 16.9 | | | | 30 - 130 | 20 |
| Benzo(a)pyrene | ND | 0.02 | 90 | 93 | 3.3 | | | | 30 - 130 | 20 |
| Benzo(b)fluoranthene | ND | 0.02 | 100 | 106 | 5.8 | | | | 30 - 130 | 20 |
| Benzo(ghi)perylene | ND | 0.02 | 82 | 79 | 3.7 | | | | 30 - 130 | 20 |
| Benzo(k)fluoranthene | ND | 0.02 | 93 | 91 | 2.2 | | | | 30 - 130 | 20 |
| Chrysene | ND | 0.02 | 75 | 75 | 0.0 | | | | 30 - 130 | 20 |
| Dibenz(a,h)anthracene | ND | 0.01 | 111 | 100 | 10.4 | | | | 30 - 130 | 20 |
| Fluoranthene | ND | 0.04 | 79 | 75 | 5.2 | | | | 30 - 130 | 20 |
| Fluorene | ND | 0.05 | 67 | 66 | 1.5 | | | | 30 - 130 | 20 |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 105 | 97 | 7.9 | | | | 30 - 130 | 20 |
| Naphthalene | ND | 0.05 | 55 | 59 | 7.0 | | | | 30 - 130 | 20 |
| Phenanthrene | ND | 0.05 | 69 | 68 | 1.5 | | | | 30 - 130 | 20 |
| Pyrene | ND | 0.02 | 83 | 76 | 8.8 | | | | 30 - 130 | 20 |
| % 2-Fluorobiphenyl | 83 | % | 69 | 70 | 1.4 | | | | 30 - 130 | 20 |
| % Nitrobenzene-d5 | 76 | % | 59 | 65 | 9.7 | | | | 30 - 130 | 20 |
| % Terphenyl-d14 | 89 | % | 89 | 85 | 4.6 | | | | 30 - 130 | 20 |

Comment:

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

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

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 02, 2018

Monday, July 02, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCA78631 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CA78631 | $8100CTSIMR | Phenanthrene | CT / RSR SWPC (ug/l) / Semivolatiles | 0.10 | 0.05 | 0.077 | 0.077 | ug/L |
| CA78632 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.005 | 0.004 | 0.004 | 0.004 | mg/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:*** AECOM

***Project Location:*** 60432356 ***Project Number:***

***Laboratory Sample ID(s):*** CA78631, CA78632 ***Sampling Date(s):*** 6/26/2018

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

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Monday, July 02, 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 02, 2018

SDG I.D.: GCA78631

## *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.

## *Mercury Narration*

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

**QC Batch 436527 (Samples: CA78631, CA78632): -----**

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

### Instrument:

**MERLIN 06/29/18 07:49** Rick Schweitzer, Chemist 06/29/18

CA78631, CA78632

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 436527 (CA78631)**

CA78631, CA78632

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: Mercury(73.5%)
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

## *ICP Metals Narration*

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

### Instrument:

**BLUE 06/28/18 10:22** Mike Arsenault, Chemist 06/28/18

CA78631, CA78632

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.

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

July 02, 2018

SDG I.D.: GCA78631

## *ICP Metals Narration*

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

### QC (Batch Specific):

**Batch 436430 (CA75265)**

CA78631, CA78632

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 06/28/18 14:44** Cindy Pearce, Chemist 06/28/18

CA78631, CA78632

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 436299 (CA78631)**

CA78631, CA78632

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

## *SVOASIM Narration*

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

### Instrument:

**CHEM25 06/27/18-1** Damien Drobinski, Chemist 06/27/18

CA78631, CA78632

Initial Calibration Verification (CHEM25/SIM_0621):
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 (CHEM25/0627_02-SIM_0621):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
94% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

July 02, 2018

SDG I.D.: GCA78631

## *SVOASIM Narration*

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

### QC (Batch Specific):

**Batch 436241 (CA77378)**

CA78631, CA78632

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

## *Temperature Narration*

The samples were received at 2.2C 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**

Temp 0.2 Pg of

**Data Delivery:**
[ ] Fax #: WCIP
[X] Email Matthew.rood@aecom.com

Customer: AECOM
Address: 500 Enterprise Dr. Suite 1A
Rocky Hill CT 06067

Project: 60432356
Report to: AECOM Matthew Rood
Invoice to: AECOM Matthew Rood

Project P.O:
Phone #: 860-263-5800
Fax #: 860-263-5777

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=drinking water **WW**=wastewater **S**=soil/solid **O**=oil
**GW**=groundwater **SL**=sludge **A**=air **X**=other

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | PAHs-SIM | CT RSR Metals | + | + | + | + | + | + | + | + | + | + | Soil VOA Vials [ ] methanol [ ] Sod Bisulfa | GL Soil container ( ) oz | GL Soil container ( ) oz | 40 ml VOA Vial [ ] As is [ ] HCl | GL Amber 1000ml [X] As is [ ] H2SO4 | PL As is [ ] 250ml [X] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 786031 | MW-415-062618-1 | GW | 6/26/18 | 1344 | X | X | | | | | | | | | | | | | | | 1 | | | 1 | | |
| 786032 | MW-49-062618-1 | GW | 6/26/18 | 1210 | X | X | | | | | | | | | | | | | | | 1 | | | 1 | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| Scott Gish | [signature] | 6/26/18 | 1447 |
| [signature] | TRAUM | 6/26/18 | 1657 |
| | | | |

**Comments, Special Requirements or Regulations:**

Client is a municipality and is tax exempt. Please don't include tax on invoices.

GWPC/SWPC criteria must be met for reporting limits.

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

* SURCHARGE APPLIES

**CT/RI**
[X] RCP Cert
[X] GW Protect
[ ] GA Mobility
[ ] GB Mobility
[X] SW Protection
[ ] Res. Vol.
[ ] Ind. Vol.
[ ] Res. Criteria
[ ] 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
[X] EQuIS
[ ] Other _____

**Data Package**
[ ] ASP-A
[ ] NJ Reduced Deliv. *
[ ] NJ Hazsite EDD
[ ] Phoenix Std Report
[ ] Other

**State where samples were collected:** CT

PHOENIX
Environmental Laboratories, Inc.

**Thursday, July 05, 2018**

**Attn: Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: 60432356**
**Sample ID#s: CA79842 - CA79843**

**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**

**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

July 05, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/27/18 | 7:50 |
| Location Code: | AECOM-CT | Received by: | CP | 06/27/18 | 17:30 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA79842
Phoenix ID: CA79842

Project ID: 60432356
Client ID: MW-AJ13-062718-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Arsenic | 0.020 | 0.004 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Barium | 0.058 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Chromium | 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 06/29/18 | RS | SW7470A |
| Nickel | 0.006 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | 0.005 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Zinc | 1.66 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 06/29/18 | Q/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/28/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-AJ13-062718-1

Phoenix I.D.: CA79842

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 68 | | % | 1 | 07/02/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 88 | | % | 1 | 07/02/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 71 | | % | 1 | 07/02/18 | 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:

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 05, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

July 05, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/27/18 | 10:16 |
| Location Code: | AECOM-CT | Received by: | CP | 06/27/18 | 17:30 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA79842
Phoenix ID: CA79843

Project ID: 60432356
Client ID: MW-AE8-062718-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Barium | 0.140 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Chromium | 0.001 | 0.001 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Copper | 0.006 | 0.005 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 06/29/18 | RS | SW7470A |
| Nickel | 0.003 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | 0.003 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Zinc | 0.004 | 0.002 | mg/L | 1 | 06/29/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 06/29/18 | Q/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/28/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-AE8-062718-1

Phoenix I.D.: CA79843

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/02/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 72 | | % | 1 | 07/02/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 77 | | % | 1 | 07/02/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 65 | | % | 1 | 07/02/18 | 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:

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 05, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# QA/QC Report

July 05, 2018

## QA/QC Data

SDG I.D.: GCA79842

| 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 436527 (mg/L), QC Sample No: CA78631 (CA79842, CA79843) | | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 85.1 | | | 73.5 | | | 80 - 120 | 20 | 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 436655 (mg/L), QC Sample No: CA79734 (CA79842, CA79843) | | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 104 | | | 102 | | | 75 - 125 | 20 | |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 97.0 | | | 96.1 | | | 75 - 125 | 20 | |
| Barium | BRL | 0.002 | 0.014 | 0.014 | 0 | 102 | | | 100 | | | 75 - 125 | 20 | |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 99.2 | | | 100 | | | 75 - 125 | 20 | |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 99.5 | | | 100 | | | 75 - 125 | 20 | |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 98.1 | | | 98.1 | | | 75 - 125 | 20 | |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 99.7 | | | 98.1 | | | 75 - 125 | 20 | |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 98.3 | | | 97.9 | | | 75 - 125 | 20 | |
| Nickel | BRL | 0.001 | 0.004 | 0.003 | NC | 101 | | | 101 | | | 75 - 125 | 20 | |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 94.2 | | | 93.1 | | | 75 - 125 | 20 | |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 96.7 | | | 95.8 | | | 75 - 125 | 20 | |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 97.6 | | | 97.8 | | | 75 - 125 | 20 | |
| Zinc | BRL | 0.002 | 0.002 | 0.003 | NC | 97.5 | | | 97.4 | | | 75 - 125 | 20 | |
| QA/QC Batch 436858 (mg/L), QC Sample No: CA81516 5X (CA79842, CA79843) | | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 105 | | | 103 | | | 75 - 125 | 20 | |

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

July 05, 2018

## QA/QC Data

SDG I.D.: GCA79842

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 437014 (ug/L), QC Sample No: CA81516 (CA79842, CA79843) | | | | | | | | | | | |
| **Semivolatiles by SIM - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 56 | 58 | 3.5 | 48 | 44 | 8.7 | 30 - 130 | 20 | |
| Acenaphthene | ND | 0.05 | 71 | 76 | 6.8 | 71 | 74 | 4.1 | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 59 | 63 | 6.6 | 62 | 65 | 4.7 | 30 - 130 | 20 | |
| Anthracene | ND | 0.02 | 69 | 66 | 4.4 | 73 | 71 | 2.8 | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 76 | 77 | 1.3 | 81 | 70 | 14.6 | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 91 | 94 | 3.2 | 77 | 57 | 29.9 | 30 - 130 | 20 | r |
| Benzo(b)fluoranthene | ND | 0.02 | 115 | 118 | 2.6 | 81 | 61 | 28.2 | 30 - 130 | 20 | r |
| Benzo(ghi)perylene | ND | 0.02 | 87 | 88 | 1.1 | 81 | 55 | 38.2 | 30 - 130 | 20 | r |
| Benzo(k)fluoranthene | ND | 0.02 | 94 | 99 | 5.2 | 79 | 60 | 27.3 | 30 - 130 | 20 | r |
| Chrysene | ND | 0.02 | 83 | 81 | 2.4 | 82 | 69 | 17.2 | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 110 | 109 | 0.9 | 111 | 73 | 41.3 | 30 - 130 | 20 | r |
| Fluoranthene | ND | 0.04 | 74 | 73 | 1.4 | 69 | 63 | 9.1 | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 71 | 72 | 1.4 | 76 | 76 | 0.0 | 30 - 130 | 20 | |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 106 | 106 | 0.0 | 97 | 65 | 39.5 | 30 - 130 | 20 | r |
| Naphthalene | ND | 0.05 | 50 | 56 | 11.3 | 42 | 49 | 15.4 | 30 - 130 | 20 | |
| Phenanthrene | ND | 0.05 | 68 | 66 | 3.0 | 73 | 72 | 1.4 | 30 - 130 | 20 | |
| Pyrene | ND | 0.02 | 71 | 75 | 5.5 | 66 | 60 | 9.5 | 30 - 130 | 20 | |
| % 2-Fluorobiphenyl | 68 | % | 71 | 77 | 8.1 | 64 | 70 | 9.0 | 30 - 130 | 20 | |
| % Nitrobenzene-d5 | 71 | % | 60 | 58 | 3.4 | 60 | 71 | 16.8 | 30 - 130 | 20 | |
| % Terphenyl-d14 | 86 | % | 81 | 86 | 6.0 | 67 | 55 | 19.7 | 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%)

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

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

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

Phyllis Shiller, Laboratory Director
July 05, 2018

Thursday, July 05, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCA79842 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CA79842 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.020 | 0.004 | 0.004 | 0.004 | mg/L |
| CA79842 | ZN-WM | Zinc | CT / RSR SWPC (ug/l) / Inorganics | 1.66 | 0.002 | 0.123 | 0.123 | mg/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:*** AECOM

***Project Location:*** 60432356 ***Project Number:***

***Laboratory Sample ID(s):*** CA79842, CA79843 ***Sampling Date(s):*** 6/27/2018

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

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Thursday, July 05, 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 05, 2018

SDG I.D.: GCA79842

## *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.

## *Mercury Narration*

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

### Instrument:

**MERLIN 06/29/18 07:49** Rick Schweitzer, Chemist 06/29/18

CA79842, CA79843

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 436527 (CA78631)**

CA79842, CA79843

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 06/28/18 10:22** Mike Arsenault, Chemist 06/28/18

CA79842, CA79843

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 06/29/18 10:54** Mike Arsenault, Chemist 06/29/18

CA79842, CA79843

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

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

July 05, 2018

SDG I.D.: GCA79842

## *ICP Metals Narration*

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 436655 (CA79734)**

CA79842, CA79843

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 07/03/18 11:56** Cindy Pearce, Chemist 07/03/18

CA79842, CA79843

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 436858 (CA81516)**

CA79842, CA79843

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

## *SVOASIM Narration*

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

**QC Batch 437014 (Samples: CA79842, CA79843): -----**

**The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene)**

### Instrument:

**CHEM04 07/02/18-1** Damien Drobinski, Chemist 07/02/18

CA79842, CA79843

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

July 05, 2018

SDG I.D.: GCA79842

## *SVOASIM Narration*

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/BNSIM_0702):
90% of target compounds met criteria.
The following compounds had %RSDs >20%: Acenaphthylene 22% (20%), Phenanthrene 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 (CHEM04/0702_13-BNSIM_0702):
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 437014 (CA81516)**

CA79842, CA79843

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%)

## *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)

**PHOENIX** Environmental Laboratories, Inc.

# CHAIN OF CUSTODY RECORD

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

Temp 3.7 Pg of

**Data Delivery:**
[ ] Fax #: WOIP
[x] Email Matthew.rood@aecom.com

Customer: AECOM
Address: 500 Enterprise Dr. Suite 1A
Rocky Hill CT 06067

Project: 60432356
Report to: AECOM Matthew Rood
Invoice to: AECOM Matthew Rood

Project P.O:
Phone #: 860-263-5800
Fax #: 860-263-5777

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=drinking water **WW**=wastewater **S**=soil/solid **O**=oil
**GW**=groundwater **SL**=sludge **A**=air **X**=other

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | PAHs-SIM | CT RSR Metals | + | + | + | + | + | + | + | + | + | + | Soil VOA Vials [ ] methanol [ ] Sod Bisulfa | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 79842 | MW-AS13-062718-1 | GW | 6/27/18 | 750 | X | X | | | | | | | | | | | | | | | 1 | | | 1 | | |
| 79843 | MW-AE8-062718-1 | GW | 6/27/18 | 1016 | | | | | | | | | | | | | | | | | 1 | | | 1 | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| Scott Gish | [signature] | 6/27/18 | 1445 |
| [signature] | TROUM | 06/27/18 | 17:30 |
| | | | |

**Comments, Special Requirements or Regulations:**

Client is a municipality and is tax exempt. Please don't include tax on invoices.

GWPC/SWPC criteria must be met for reporting limits.

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

* SURCHARGE APPLIES

**CT/RI**
[X] RCP Cert
[X] GW Protect
[ ] GA Mobility
[ ] GB Mobility
[X] SW Protection
[ ] Res. Vol.
[ ] Ind. Vol.
[ ] Res. Criteria
[ ] 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
[X] EQuIS
[ ] Other _____

**Data Package**
[ ] ASP-A
[ ] NJ Reduced Deliv. *
[ ] NJ Hazsite EDD
[ ] Phoenix Std Report
[ ] Other

**State where samples were collected:** CT

PHOENIX
Environmental Laboratories, Inc.

**Friday, July 06, 2018**

**Attn: Mr. Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: 60432356**
**Sample ID#s: CA80833 - CA80837**

**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**

**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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# SDG Comments

July 06, 2018

SDG I.D.: GCA80833

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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).

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 06, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/27/18 | 11:00 |
| Location Code: | AECOM-CT | Received by: | B | 06/28/18 | 17:33 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA80833
Phoenix ID: CA80833

Project ID: 60432356
Client ID: MW-AA12-062718-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.780 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/03/18 | RS | SW7470A |
| Nickel | 0.002 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | 0.206 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/02/18 | IQ/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | 0.62 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | 0.05 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | 0.07 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | 0.05 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | 0.05 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-AA12-062718-1

Phoenix I.D.: CA80833

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | 0.06 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | 0.18 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | 0.34 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | 0.18 | 0.09 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | 0.07 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | 0.10 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 70 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 80 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 53 | | % | 1 | 07/03/18 | 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:

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 06, 2018**
**Reviewed and Released by: Maryam Taylor, Project Manager**

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

# Analysis Report

July 06, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/28/18 | 10:05 |
| Location Code: | AECOM-CT | Received by: | B | 06/28/18 | 17:33 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA80833
Phoenix ID: CA80834

Project ID: 60432356
Client ID: MW-AA16R-062818-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | 0.006 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.988 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | 0.004 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/03/18 | RS | SW7470A |
| Nickel | 0.002 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | 0.005 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | 0.029 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/02/18 | IQ/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | 0.16 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | 0.55 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | 0.09 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356

Client ID: MW-AA16R-062818-1

Phoenix I.D.: CA80834

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | 0.08 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | 0.34 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | 0.37 | 0.10 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | 0.06 | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 69 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 76 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 67 | | % | 1 | 07/03/18 | 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:

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

**July 06, 2018**

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

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

# Analysis Report

July 06, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/28/18 | 11:00 |
| Location Code: | AECOM-CT | Received by: | B | 06/28/18 | 17:33 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA80833
Phoenix ID: CA80835

Project ID: 60432356
Client ID: MW-P7-062818-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.143 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/03/18 | RS | SW7470A |
| Nickel | 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/02/18 | IQ/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-P7-062818-1

Phoenix I.D.: CA80835

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 65 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 89 | | % | 1 | 07/03/18 | 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:

If there are any questions regarding this data, please call Phoenix Client Services.
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**Phyllis Shiller, Laboratory Director**
**July 06, 2018**
**Reviewed and Released by: Maryam Taylor, Project Manager**

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

# Analysis Report

July 06, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/28/18 | 12:35 |
| Location Code: | AECOM-CT | Received by: | B | 06/28/18 | 17:33 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA80833
Phoenix ID: CA80836

Project ID: 60432356
Client ID: MW-S15-062818-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.122 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/03/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | 0.003 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/02/18 | IQ/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-S15-062818-1

Phoenix I.D.: CA80836

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 72 | | % | 1 | 07/03/18 | 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:

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**Phyllis Shiller, Laboratory Director**
**July 06, 2018**
**Reviewed and Released by: Maryam Taylor, Project Manager**

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

# Analysis Report

July 06, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 06/28/18 | 12:50 |
| Location Code: | AECOM-CT | Received by: | B | 06/28/18 | 17:33 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCA80833
Phoenix ID: CA80837

Project ID: 60432356
Client ID: MW-S15-062818-2

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Barium | 0.123 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Chromium | 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 07/03/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 07/03/18 | CPP | SW6020B |
| Vanadium | 0.003 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Zinc | < 0.002 | 0.002 | mg/L | 1 | 06/30/18 | MA | SW6010C |
| Mercury Digestion | Completed | | | | 07/02/18 | IQ/I | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 07/01/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 06/29/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 06/29/18 | AG | |
| **Semivolatiles by SIM** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-S15-062818-2

Phoenix I.D.: CA80837

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 07/03/18 | DD | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 64 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Nitrobenzene-d5 | 70 | | % | 1 | 07/03/18 | DD | 30 - 130 % |
| % Terphenyl-d14 | 74 | | % | 1 | 07/03/18 | 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:

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**Phyllis Shiller, Laboratory Director**
**July 06, 2018**
**Reviewed and Released by: Maryam Taylor, Project Manager**

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

# QA/QC Report

July 06, 2018

## QA/QC Data

SDG I.D.: GCA80833

| 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 436751 (mg/L), QC Sample No: CA80833 (CA80833, CA80834, CA80835, CA80836, CA80837) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 90.6 | | | 89.0 | | | 80 - 120 | 20 |
| Comment: | | | | | | | | | | | | | |
| Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%. | | | | | | | | | | | | | |
| QA/QC Batch 436858 (mg/L), QC Sample No: CA81516 5X (CA80833, CA80834, CA80835, CA80836, CA80837) | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 105 | | | 103 | | | 75 - 125 | 20 |
| QA/QC Batch 436854 (mg/L), QC Sample No: CA81517 (CA80833, CA80834, CA80835, CA80836, CA80837) | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 103 | | | 105 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 95.1 | | | 98.0 | | | 75 - 125 | 20 |
| Barium | BRL | 0.002 | 0.568 | 0.560 | 1.40 | 100 | | | 90.8 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 97.7 | | | 96.8 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 96.4 | | | 92.9 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 96.4 | | | 94.4 | | | 75 - 125 | 20 |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 97.2 | | | 99.6 | | | 75 - 125 | 20 |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 96.7 | | | 93.7 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.001 | 0.006 | 0.006 | 0 | 98.5 | | | 94.2 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 92.9 | | | 94.0 | | | 75 - 125 | 20 |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 92.7 | | | 96.2 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 96.7 | | | 96.4 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.002 | <0.002 | <0.002 | NC | 94.4 | | | 95.4 | | | 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

July 06, 2018

## QA/QC Data

SDG I.D.: GCA80833

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 437014 (ug/L), QC Sample No: CA81516 (CA80833, CA80834, CA80835, CA80836, CA80837) | | | | | | | | | | | |
| **Semivolatiles by SIM - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 56 | 58 | 3.5 | 48 | 44 | 8.7 | 30 - 130 | 20 | |
| Acenaphthene | ND | 0.05 | 71 | 76 | 6.8 | 71 | 74 | 4.1 | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 59 | 63 | 6.6 | 62 | 65 | 4.7 | 30 - 130 | 20 | |
| Anthracene | ND | 0.02 | 69 | 66 | 4.4 | 73 | 71 | 2.8 | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 76 | 77 | 1.3 | 81 | 70 | 14.6 | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 91 | 94 | 3.2 | 77 | 57 | 29.9 | 30 - 130 | 20 | r |
| Benzo(b)fluoranthene | ND | 0.02 | 115 | 118 | 2.6 | 81 | 61 | 28.2 | 30 - 130 | 20 | r |
| Benzo(ghi)perylene | ND | 0.02 | 87 | 88 | 1.1 | 81 | 55 | 38.2 | 30 - 130 | 20 | r |
| Benzo(k)fluoranthene | ND | 0.02 | 94 | 99 | 5.2 | 79 | 60 | 27.3 | 30 - 130 | 20 | r |
| Chrysene | ND | 0.02 | 83 | 81 | 2.4 | 82 | 69 | 17.2 | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 110 | 109 | 0.9 | 111 | 73 | 41.3 | 30 - 130 | 20 | r |
| Fluoranthene | ND | 0.04 | 74 | 73 | 1.4 | 69 | 63 | 9.1 | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 71 | 72 | 1.4 | 76 | 76 | 0.0 | 30 - 130 | 20 | |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 106 | 106 | 0.0 | 97 | 65 | 39.5 | 30 - 130 | 20 | r |
| Naphthalene | ND | 0.05 | 50 | 56 | 11.3 | 42 | 49 | 15.4 | 30 - 130 | 20 | |
| Phenanthrene | ND | 0.05 | 68 | 66 | 3.0 | 73 | 72 | 1.4 | 30 - 130 | 20 | |
| Pyrene | ND | 0.02 | 71 | 75 | 5.5 | 66 | 60 | 9.5 | 30 - 130 | 20 | |
| % 2-Fluorobiphenyl | 68 | % | 71 | 77 | 8.1 | 64 | 70 | 9.0 | 30 - 130 | 20 | |
| % Nitrobenzene-d5 | 71 | % | 60 | 58 | 3.4 | 60 | 71 | 16.8 | 30 - 130 | 20 | |
| % Terphenyl-d14 | 86 | % | 81 | 86 | 6.0 | 67 | 55 | 19.7 | 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%)

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

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

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

Phyllis Shiller, Laboratory Director
July 06, 2018

Friday, July 06, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCA80833 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CA80833 | ZN-WM | Zinc | CT / RSR SWPC (ug/l) / Inorganics | 0.206 | 0.002 | 0.123 | 0.123 | mg/L |
| CA80834 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.006 | 0.004 | 0.004 | 0.004 | mg/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:*** AECOM

***Project Location:*** 60432356 ***Project Number:***

***Laboratory Sample ID(s):*** CA80833-CA80837 ***Sampling Date(s):*** 6/27/2018, 6/28/2018

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

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

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

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

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

**Printed Name:** Maryam Taylor **Date:** Friday, July 06, 2018

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

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

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

July 06, 2018

SDG I.D.: GCA80833

## *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).

## *Mercury Narration*

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

### Instrument:

**MERLIN 07/03/18 07:43** Rick Schweitzer, Chemist 07/03/18

CA80833, CA80834, CA80835, CA80836, CA80837

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 436751 (CA80833)**

CA80833, CA80834, CA80835, CA80836, CA80837

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 06/30/18 07:02** Mike Arsenault, Chemist 06/30/18

CA80833, CA80834, CA80835, CA80836, CA80837

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 436854 (CA81517)**

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

July 06, 2018

SDG I.D.: GCA80833

## *ICP Metals Narration*

CA80833, CA80834, CA80835, CA80836, CA80837

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 07/03/18 11:56** Cindy Pearce, Chemist 07/03/18

CA80833, CA80834, CA80835, CA80836, CA80837

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 436858 (CA81516)**

CA80833, CA80834, CA80835, CA80836, CA80837

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

## *SVOASIM Narration*

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

**Instrument:**

**CHEM04 07/02/18-1** Damien Drobinski, Chemist 07/02/18

CA80833, CA80834, CA80835, CA80836, CA80837

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/BNSIM_0702):
90% of target compounds met criteria.
The following compounds had %RSDs >20%: Acenaphthylene 22% (20%), Phenanthrene 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 (CHEM04/0702_13-BNSIM_0702):
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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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

July 06, 2018

SDG I.D.: GCA80833

## *SVOASIM Narration*

### QC (Batch Specific):

**Batch 437014 (CA81516)**

CA80833, CA80834, CA80835, CA80836, CA80837

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

## *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**

Temp 3.6 Pg 1 of 1

**Data Delivery:**
☐ Fax #:
☒ Email Matthew.rood@aecom.com

Customer: AECOM
Address: 500 Enterprise Dr. Suite 1A
Rocky Hill CT 06067

Project: 60432356
Report to: AECOM Matthew Rood
Invoice to: AECOM Matthew Rood

Project P.O:
Phone #: 860-263-5800
Fax #: 860-263-5777

**Client Sample - Information - Identification**

Sampler's Signature _____ Date: _____

**Matrix Code:**
**DW**=drinking water **WW**=wastewater **S**=soil/solid **O**=oil
**GW**=groundwater **SL**=sludge **A**=air **X**=other

Analysis Request

| Phoenix Sample # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | PAHs-SIM | CT RSR Metals | | | | | | | | | | | Soil VOA Vials [ ] methanol [ ] Sod Bisulfa | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 80833 | MW-AA12-062718-1 | GW | 6/27/18 | 1100 | X | X | | | | | | | | | | | | | | | | | | | | |
| 80834 | MW-AH16R-062818-1 | GW | 6/28/18 | 1005 | X | X | | | | | | | | | | | | | | | | | | | | |
| 80835 | MW-P7-062818-1 | GW | 6/28/18 | 1100 | X | X | | | | | | | | | | | | | | | | | | | | |
| | ~~MW-PH-062818-1~~ | | | | | | | | | | | | | | | | | | | | | | | | | |
| 80836 | MW-515-062818-1 | GW | 6/28/18 | 1235 | X | X | | | | | | | | | | | | | | | | | | | | |
| 80837 | MW-515-062818-2 | GW | 6/28/18 | 1250 | X | X | | | | | | | | | | | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| Scott Gish | | 6/28/18 | 1417 |
| | | 6/28/18 | 17:33 |
| | | | |

**Comments, Special Requirements or Regulations:**

Client is a municipality and is tax exempt. Please don't include tax on invoices.

GWPC/SWPC criteria must be met for reporting limits.

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

**CT/RI**
☒ RCP Cert
☒ GW Protect
☐ GA Mobility
☐ GB Mobility
☒ SW Protection
☐ Res. Vol.
☐ Ind. Vol.
☐ Res. Criteria
☐ Other

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

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

**Data Package**
☐ ASP-A
☐ NJ Reduced Deliv. *
☐ NJ Hazsite EDD
☐ Phoenix Std Report
☐ Other

**State where samples were collected:** CT

PHOENIX
Environmental Laboratories, Inc.

**Friday, October 05, 2018**

**Attn: Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: GREENWICH HIGH SCHOOL**
**Sample ID#s: CB39894 - CB39896**

**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**

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

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

# Analysis Report

October 05, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/26/18 | 8:55 |
| Location Code: | AECOM-CT | Received by: | SW | 09/26/18 | 17:10 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB39894
Phoenix ID: CB39894

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-Y15-092618-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Barium | 0.584 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 09/27/18 | RS | SW7470A |
| Nickel | 0.002 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Lead | 0.002 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 09/30/18 | EK | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | 0.003 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Zinc | 0.017 | 0.004 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/27/18 | Q/Q | SW7470A |
| Extraction for Pest (2 Liter) | Completed | | | | 09/26/18 | U/N | SW3510C |
| Semi-Volatile Extraction | Completed | | | | 09/27/18 | P/R/D | SW3520C |
| Total Metals Digestion | Completed | | | | 09/27/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/28/18 | AG | |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Aldrin | ND | 0.001 | ug/L | 1 | 10/01/18 | CW | SW8081B |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-Y15-092618-1

Phoenix I.D.: CB39894

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| b-BHC | ND | 0.050 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 49 | | % | 1 | 10/01/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | Interference | | % | 1 | 10/01/18 | CW | 30 - 150 % |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | 0.08 | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Acenaphthene | 0.53 | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Anthracene | 0.08 | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Fluorene | 0.31 | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Phenanthrene | 0.09 | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 62 | | % | 1 | 09/29/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | % | 1 | 09/29/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 50 | | % | 1 | 09/29/18 | KCA | 30 - 130 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-Y15-092618-1

Phoenix I.D.: CB39894

| 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:

Pesticide Comment:
Due to a matrix interference and/or the presence of a large amount of non-target material in the sample, surrogate recoveries could not be reported.

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 05, 2018**

**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

October 05, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/26/18 | 10:25 |
| Location Code: | AECOM-CT | Received by: | SW | 09/26/18 | 17:10 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB39894
Phoenix ID: CB39895

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-Y9-092618-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Arsenic | 0.007 | 0.004 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Barium | 1.25 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 09/27/18 | RS | SW7470A |
| Nickel | 0.005 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Lead | 0.007 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Antimony | 0.021 | 0.005 | mg/L | 1 | 09/30/18 | EK | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | 0.004 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Zinc | 0.009 | 0.004 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/27/18 | Q/Q | SW7470A |
| Extraction for Pest (2 Liter) | Completed | | | | 09/26/18 | U/N | SW3510C |
| Semi-Volatile Extraction | Completed | | | | 09/27/18 | P/R/D | SW3520C |
| Total Metals Digestion | Completed | | | | 09/27/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/28/18 | AG | |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Aldrin | ND | 0.001 | ug/L | 1 | 10/01/18 | CW | SW8081B |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-Y9-092618-1

Phoenix I.D.: CB39895

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| b-BHC | ND | 0.050 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 10/01/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 39 | | % | 1 | 10/01/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 87 | | % | 1 | 10/01/18 | CW | 30 - 150 % |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | KCA | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 60 | | % | 1 | 09/29/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 72 | | % | 1 | 09/29/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 27 | | % | 1 | 09/29/18 | KCA | 30 - 130 % 3 |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-Y9-092618-1

Phoenix I.D.: CB39895

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

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:

Semi-Volatile Comment:
Poor surrogate recovery was observed for one acid and/or one base surrogate. The other surrogates associated with this sample were within QA/QC criteria. No significant bias suspected.

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 05, 2018**

**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

October 05, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/26/18 | 9:45 |
| Location Code: | AECOM-CT | Received by: | SW | 09/26/18 | 17:10 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB39894
Phoenix ID: CB39896

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AE8-092618-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Barium | 0.105 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Copper | 0.014 | 0.005 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 09/27/18 | RS | SW7470A |
| Nickel | 0.003 | 0.001 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 09/30/18 | EK | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | 0.003 | 0.002 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Zinc | 0.007 | 0.004 | mg/L | 1 | 09/30/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/27/18 | Q/Q | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 09/27/18 | P/R/D | SW3520C |
| Total Metals Digestion | Completed | | | | 09/27/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/28/18 | AG | |
| **Semivolatiles by SIM, PAH** | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AE8-092618-1

Phoenix I.D.: CB39896

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 58 | | % | 1 | 09/29/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | % | 1 | 09/29/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 37 | | % | 1 | 09/29/18 | 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:

If there are any questions regarding this data, please call Phoenix Client Services.
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**Phyllis Shiller, Laboratory Director**
**October 05, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# QA/QC Report

October 05, 2018

## QA/QC Data

SDG I.D.: GCB39894

| 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 449293 (mg/L), QC Sample No: CB39331 (CB39894) | | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | | |
| Antimony | BRL | 0.015 | 0.023 | 0.013 | NC | 102 | | | 102 | | | 75 - 125 | 20 | |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 103 | | | 107 | | | 75 - 125 | 20 | |
| Barium | BRL | 0.002 | 0.344 | 0.347 | 0.90 | 100 | | | 94.4 | | | 75 - 125 | 20 | |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 103 | | | 102 | | | 75 - 125 | 20 | |
| Cadmium | BRL | 0.001 | 0.001 | <0.001 | NC | 103 | | | 101 | | | 75 - 125 | 20 | |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 102 | | | 100 | | | 75 - 125 | 20 | |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 102 | | | 103 | | | 75 - 125 | 20 | |
| Lead | BRL | 0.002 | 0.003 | 0.002 | NC | 102 | | | 101 | | | 75 - 125 | 20 | |
| Nickel | BRL | 0.001 | 0.023 | 0.023 | 0 | 102 | | | 99.1 | | | 75 - 125 | 20 | |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 101 | | | 101 | | | 75 - 125 | 20 | |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 100 | | | 105 | | | 75 - 125 | 20 | |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 99.1 | | | 98.7 | | | 75 - 125 | 20 | |
| Zinc | BRL | 0.004 | 0.029 | 0.028 | 3.50 | 101 | | | 102 | | | 75 - 125 | 20 | |
| QA/QC Batch 449229 (mg/L), QC Sample No: CB39894 (CB39894, CB39895, CB39896) | | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 90.3 | | | 70.6 | | | 80 - 120 | 20 | 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 449294 (mg/L), QC Sample No: CB59560 (CB39895, CB39896) | | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | 0.014 | 0.011 | NC | 99.6 | | | 97.8 | | | 75 - 125 | 20 | |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 100 | | | 98.0 | | | 75 - 125 | 20 | |
| Barium | BRL | 0.002 | 0.023 | 0.024 | 4.30 | 99.2 | | | 99.0 | | | 75 - 125 | 20 | |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 100 | | | 99.9 | | | 75 - 125 | 20 | |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 99.9 | | | 96.8 | | | 75 - 125 | 20 | |
| Chromium | BRL | 0.001 | 0.002 | 0.003 | NC | 99.2 | | | 97.6 | | | 75 - 125 | 20 | |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 99.2 | | | 98.7 | | | 75 - 125 | 20 | |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 99.4 | | | 98.1 | | | 75 - 125 | 20 | |
| Nickel | BRL | 0.001 | 0.002 | 0.001 | NC | 99.5 | | | 97.1 | | | 75 - 125 | 20 | |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 98.7 | | | 95.1 | | | 75 - 125 | 20 | |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 98.7 | | | 98.2 | | | 75 - 125 | 20 | |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 96.4 | | | 94.8 | | | 75 - 125 | 20 | |
| Zinc | BRL | 0.004 | <0.004 | <0.004 | NC | 98.8 | | | 96.8 | | | 75 - 125 | 20 | |
| QA/QC Batch 449547 (mg/L), QC Sample No: CB60779 5X (CB39894, CB39895, CB39896) | | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 98.2 | | | 103 | | | 75 - 125 | 20 | |

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

October 05, 2018

## QA/QC Data

SDG I.D.: GCB39894

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 449319 (ug/L), QC Sample No: CB39690 (CB39894, CB39895, CB39896) | | | | | | | | | | |
| **Semivolatiles by SIM, PAH - Ground Water** | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 62 | 60 | 3.3 | | | | 30 - 130 | 20 |
| Acenaphthene | ND | 0.05 | 79 | 79 | 0.0 | | | | 30 - 130 | 20 |
| Acenaphthylene | ND | 0.04 | 70 | 67 | 4.4 | | | | 30 - 130 | 20 |
| Anthracene | ND | 0.02 | 87 | 84 | 3.5 | | | | 30 - 130 | 20 |
| Benz(a)anthracene | ND | 0.02 | 90 | 86 | 4.5 | | | | 30 - 130 | 20 |
| Benzo(a)pyrene | ND | 0.02 | 83 | 79 | 4.9 | | | | 30 - 130 | 20 |
| Benzo(b)fluoranthene | ND | 0.02 | 84 | 79 | 6.1 | | | | 30 - 130 | 20 |
| Benzo(ghi)perylene | ND | 0.02 | 74 | 77 | 4.0 | | | | 30 - 130 | 20 |
| Benzo(k)fluoranthene | ND | 0.02 | 84 | 80 | 4.9 | | | | 30 - 130 | 20 |
| Chrysene | ND | 0.02 | 86 | 83 | 3.6 | | | | 30 - 130 | 20 |
| Dibenz(a,h)anthracene | ND | 0.01 | 91 | 96 | 5.3 | | | | 30 - 130 | 20 |
| Fluoranthene | ND | 0.04 | 75 | 75 | 0.0 | | | | 30 - 130 | 20 |
| Fluorene | ND | 0.05 | 85 | 84 | 1.2 | | | | 30 - 130 | 20 |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 84 | 87 | 3.5 | | | | 30 - 130 | 20 |
| Naphthalene | ND | 0.05 | 51 | 48 | 6.1 | | | | 30 - 130 | 20 |
| Phenanthrene | ND | 0.05 | 79 | 77 | 2.6 | | | | 30 - 130 | 20 |
| Pyrene | ND | 0.02 | 75 | 75 | 0.0 | | | | 30 - 130 | 20 |
| % 2-Fluorobiphenyl | 66 | % | 69 | 70 | 1.4 | | | | 30 - 130 | 20 |
| % Nitrobenzene-d5 | 77 | % | 59 | 54 | 8.8 | | | | 30 - 130 | 20 |
| % Terphenyl-d14 | 63 | % | 66 | 70 | 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 449130 (ug/L), QC Sample No: CB39708 (CB39894, CB39895) | | | | | | | | | | |
| **Pesticides - Ground Water** | | | | | | | | | | |
| 4,4' -DDD | ND | 0.003 | 105 | 97 | 7.9 | | | | 40 - 140 | 20 |
| 4,4' -DDE | ND | 0.003 | 104 | 92 | 12.2 | | | | 40 - 140 | 20 |
| 4,4' -DDT | ND | 0.003 | 103 | 98 | 5.0 | | | | 40 - 140 | 20 |
| a-BHC | ND | 0.002 | 97 | 92 | 5.3 | | | | 40 - 140 | 20 |
| Alachlor | ND | 0.005 | NA | NA | NC | | | | 40 - 140 | 20 |
| Aldrin | ND | 0.002 | 78 | 42 | 60.0 | | | | 40 - 140 | 20 r |
| b-BHC | ND | 0.002 | 113 | 125 | 10.1 | | | | 40 - 140 | 20 |
| Chlordane | ND | 0.050 | 96 | 87 | 9.8 | | | | 40 - 140 | 20 |
| d-BHC | ND | 0.005 | 116 | 123 | 5.9 | | | | 40 - 140 | 20 |
| Dieldrin | ND | 0.002 | 98 | 93 | 5.2 | | | | 40 - 140 | 20 |
| Endosulfan I | ND | 0.005 | 109 | 101 | 7.6 | | | | 40 - 140 | 20 |
| Endosulfan II | ND | 0.005 | 115 | 107 | 7.2 | | | | 40 - 140 | 20 |
| Endosulfan sulfate | ND | 0.005 | 131 | 125 | 4.7 | | | | 40 - 140 | 20 |
| Endrin | ND | 0.005 | 99 | 96 | 3.1 | | | | 40 - 140 | 20 |
| Endrin aldehyde | ND | 0.005 | 109 | 104 | 4.7 | | | | 40 - 140 | 20 |
| Endrin ketone | ND | 0.005 | 112 | 106 | 5.5 | | | | 40 - 140 | 20 |

# QA/QC Data

SDG I.D.: GCB39894

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| g-BHC | ND | 0.002 | 100 | 97 | 3.0 | | | | 40 - 140 | 20 |
| Heptachlor | ND | 0.005 | 93 | 78 | 17.5 | | | | 40 - 140 | 20 |
| Heptachlor epoxide | ND | 0.005 | 103 | 101 | 2.0 | | | | 40 - 140 | 20 |
| Methoxychlor | ND | 0.005 | 115 | 105 | 9.1 | | | | 40 - 140 | 20 |
| Toxaphene | ND | 0.20 | NA | NA | NC | | | | 40 - 140 | 20 |
| % DCBP | 81 | % | 105 | 92 | 13.2 | | | | 30 - 150 | 20 |
| % TCMX | 77 | % | 103 | 95 | 8.1 | | | | 30 - 150 | 20 |

Comment:

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

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 05, 2018

Friday, October 05, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCB39894 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CB39894 | $8100CTSIMR | Phenanthrene | CT / RSR SWPC (ug/l) / Semivolatiles | 0.09 | 0.05 | 0.077 | 0.077 | ug/L |
| CB39895 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.007 | 0.004 | 0.004 | 0.004 | mg/L |
| CB39895 | BA-WM | Barium | CT / RSR GWPC (ug/l) / Inorganics | 1.25 | 0.002 | 1 | 1 | mg/L |
| CB39895 | SB-WM | Antimony | CT / RSR GWPC (ug/l) / Inorganics | 0.021 | 0.005 | 0.006 | 0.006 | mg/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:*** AECOM

***Project Location:*** GREENWICH HIGH SCHOOL ***Project Number:***

***Laboratory Sample ID(s):*** CB39894-CB39896 ***Sampling Date(s):*** 9/26/2018

***List RCP Methods Used (e.g., 8260, 8270, et cetera)*** 6010, 7470/7471, 8081, 8270

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Friday, October 05, 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

October 05, 2018

SDG I.D.: GCB39894

## *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.

## *Mercury Narration*

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

**QC Batch 449229 (Samples: CB39894, CB39895, CB39896): -----**

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

### Instrument:

**MERLIN 09/27/18 08:27** Rick Schweitzer, Chemist 09/27/18

CB39894, CB39895, CB39896

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 449229 (CB39894)**

CB39894, CB39895, CB39896

All LCS recoveries were within 80 - 120 with the following exceptions: None.
All MS recoveries were within 75 - 125 with the following exceptions: Mercury(70.6%)
A matrix effect is suspected when a MS/MSD recovery is outside of criteria. No further action is required if LCS/LCSD compounds are within criteria.
Additional Mercury criteria: LCS acceptance range for waters is 80-120% and for soils is 70-130%. MS acceptance range is 75-125%.

## *ICP Metals Narration*

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

### Instrument:

**ARCOS 09/29/18 08:23** Cindy Pearce, Emily Kolominskaya, Chemist 09/29/18

CB39894, CB39895, CB39896

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.

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

October 05, 2018

SDG I.D.: GCB39894

## *ICP Metals Narration*

### QC (Batch Specific):

**Batch 449293 (CB39331)**

CB39894

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

**Batch 449294 (CB59560)**

CB39895, CB39896

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 10/01/18 16:48** Cindy Pearce, Chemist 10/01/18

CB39894, CB39895, CB39896

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 449547 (CB60779)**

CB39894, CB39895, CB39896

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

## *PEST Narration*

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

**QC Batch 449130 (Samples: CB39894, CB39895): -----**

**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. (Aldrin)**

### Instrument:

**AU-ECD7 10/01/18-1** Carol Wohlmuth, Chemist 10/01/18

CB39894, CB39895

The initial calibration (PS924AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS924BI) 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.

PHOENIX

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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

October 05, 2018

SDG I.D.: GCB39894

## *PEST Narration*

### QC (Batch Specific):

**Batch 449130 (CB39708)**

CB39894, CB39895

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: Aldrin(60.0%)
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

## *SVOASIM Narration*

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

### Instrument:

**CHEM25 09/28/18-1** Keith Aloisa, Chemist 09/28/18

CB39894, CB39895

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM25/SIM_0926):
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 (CHEM25/0928_09-SIM_0926):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: Perylene-d12 (212)
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

**CHEM27 09/29/18-1** Harry Mullin, Chemist 09/29/18

CB39896

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/bnSIM_0924a):
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 (CHEM27/0929_03-bnSIM_0924a):
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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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

October 05, 2018

SDG I.D.: GCB39894

## *SVOASIM Narration*

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

### QC (Batch Specific):

**Batch 449319 (CB39690)**

CB39894, CB39895, CB39896

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%)

## *Temperature Narration*

The samples in this delivery group were received at 3.8°C.
(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**

Coolant: Cooler: Yes [X] No [ ] ICE [ ] No [ ]
Temp 3.8 C Pg of

**Data Delivery/Contact Options:**
[ ] Fax:
[ ] Phone:
[X] Email: matthew.rood@aecom.com

Customer: AECOM (Matt Rood)
Address: 500 Enterprise Dr, Suite 1A
Rocky Hill, CT 06067

Project: Greenwich High School
Report to: Matt Rood, Neil Flahive
Invoice to: Matt Rood
QUOTE #

Project P.O:

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

**Client Sample - Information - Identification**

Sampler's Signature: [signature] Date: 9/26/18

**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 | CT RSR Metals | PAHs - SIM | Pesticides | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 39894 | MW-Y15-092618-1 | GW | 9/26/18 | 0855 | X | X | X | | | | | 3 | | | 1 | | | | |
| 39895 | MW-Y9-092618-1 | GW | 9/26/18 | 1025 | X | X | X | | | | | 3 | | | 1 | | | | |
| 39896 | MW-AEB-092618-1 | GW | 9/26/18 | 0945 | X | X | | | | | | 2 | | | 1 | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 9-26-18 | 3:08 |
| [signature] | [signature] | 9.26.18 | 1710 |

**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
[X] 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
[X] EQuIS
[ ] Other

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

* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

**Tuesday, October 09, 2018**

**Attn: Mr. Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: GREENWICH HIGH SCHOOL**
**Sample ID#s: CB61089 - CB61091**

**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**

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

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

# Analysis Report

October 09, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/27/18 | 14:30 |
| Location Code: | AECOM-CT | Received by: | LB | 09/28/18 | 16:10 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB61089
Phoenix ID: CB61089

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AH16R-092718

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Arsenic | 0.007 | 0.004 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Barium | 0.429 | 0.002 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Chromium | 0.002 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 10/01/18 | RS | SW7470A |
| Nickel | 0.005 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Thallium | < 0.001 | 0.001 | mg/L | 5 | 10/03/18 | CPP | SW6020B |
| Vanadium | 0.005 | 0.002 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Zinc | 0.024 | 0.004 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Mercury Digestion | Completed | | | | 09/30/18 | Q/Q | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 09/29/18 | P/R/D | SW3520C |
| Total Metals Digestion | Completed | | | | 10/01/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 10/01/18 | AG | |
| **Semivolatiles by SIM, PAH** | | | | | | | |
| 2-Methylnaphthalene | 0.22 | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Acenaphthene | 0.46 | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Anthracene | 0.05 | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AH16R-092718

Phoenix I.D.: CB61089

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Fluorene | 0.29 | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Naphthalene | 0.31 | 0.10 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 71 | | % | 1 | 10/02/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 81 | | % | 1 | 10/02/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 59 | | % | 1 | 10/02/18 | 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:

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

**Phyllis Shiller, Laboratory Director**
**October 09, 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 09, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/27/18 | 11:05 |
| Location Code: | AECOM-CT | Received by: | LB | 09/28/18 | 16:10 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB61089
Phoenix ID: CB61090

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-35-092818-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Arsenic | 0.015 | 0.004 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Barium | 0.201 | 0.002 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Beryllium | 0.001 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Chromium | 0.006 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Copper | 0.048 | 0.005 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 10/01/18 | RS | SW7470A |
| Nickel | 0.012 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Lead | 0.030 | 0.002 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Thallium | < 0.001 | 0.001 | mg/L | 5 | 10/03/18 | CPP | SW6020B |
| Vanadium | 0.016 | 0.002 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Zinc | 0.009 | 0.004 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Mercury Digestion | Completed | | | | 09/30/18 | Q/Q | SW7470A |
| Extraction for Pest (2 Liter) | Completed | | | | 09/28/18 | | SW3510C |
| Semi-Volatile Extraction | Completed | | | | 09/29/18 | P/R/D | SW3520C |
| Total Metals Digestion | Completed | | | | 10/01/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 10/01/18 | AG | |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Aldrin | ND | 0.001 | ug/L | 1 | 10/02/18 | CW | SW8081B |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-35-092818-1

Phoenix I.D.: CB61090

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| b-BHC | ND | 0.005 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 85 | | % | 1 | 10/02/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 78 | | % | 1 | 10/02/18 | CW | 30 - 150 % |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.10 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 72 | | % | 1 | 10/02/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 89 | | % | 1 | 10/02/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 42 | | % | 1 | 10/02/18 | HM | 30 - 130 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-35-092818-1

Phoenix I.D.: CB61090

| 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**

**October 09, 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 09, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/28/18 | 10:50 |
| Location Code: | AECOM-CT | Received by: | LB | 09/28/18 | 16:10 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB61089
Phoenix ID: CB61091

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-28-092818-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Barium | 0.068 | 0.002 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 10/01/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Thallium | < 0.001 | 0.001 | mg/L | 5 | 10/03/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Zinc | < 0.004 | 0.004 | mg/L | 1 | 10/02/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/30/18 | Q/Q | SW7470A |
| Extraction for Pest (2 Liter) | Completed | | | | 09/28/18 | | SW3510C |
| Semi-Volatile Extraction | Completed | | | | 09/29/18 | P/R/D | SW3520C |
| Total Metals Digestion | Completed | | | | 10/01/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 10/01/18 | AG | |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Aldrin | ND | 0.001 | ug/L | 1 | 10/02/18 | CW | SW8081B |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-28-092818-1

Phoenix I.D.: CB61091

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| b-BHC | ND | 0.005 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 10/02/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 103 | | % | 1 | 10/02/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 86 | | % | 1 | 10/02/18 | CW | 30 - 150 % |
| Client MS/MSD | Completed | | | | 10/02/18 | | |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 10/02/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 72 | | % | 1 | 10/02/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 79 | | % | 1 | 10/02/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 59 | | % | 1 | 10/02/18 | HM | 30 - 130 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-28-092818-1

Phoenix I.D.: CB61091

| 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**

**October 09, 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 09, 2018

## QA/QC Data

SDG I.D.: GCB61089

| 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 449756 (mg/L), QC Sample No: CB61091 (CB61089, CB61090, CB61091) | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 109 | | | 109 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 102 | | | 101 | | | 75 - 125 | 20 |
| Barium | BRL | 0.002 | 0.068 | 0.069 | 1.50 | 106 | | | 104 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 107 | | | 107 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 105 | | | 104 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 105 | | | 104 | | | 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 | 105 | | | 103 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.001 | <0.001 | <0.001 | NC | 105 | | | 104 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 101 | | | 99.5 | | | 75 - 125 | 20 |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 101 | | | 102 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 102 | | | 102 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.004 | <0.004 | <0.004 | NC | 105 | | | 104 | | | 75 - 125 | 20 |
| QA/QC Batch 449752 (mg/L), QC Sample No: CB61091 5X (CB61089, CB61090, CB61091) | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.001 | <0.0005 | NC | 106 | | | 104 | | | 75 - 125 | 20 |
| QA/QC Batch 449625 (mg/L), QC Sample No: CB61091 (CB61089, CB61090, CB61091) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 84.5 | | | 88.9 | | | 80 - 120 | 20 |

Comment:

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

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

# QA/QC Report

October 09, 2018

## QA/QC Data

SDG I.D.: GCB61089

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 449559 (ug/L), QC Sample No: CB61091 (CB61090, CB61091) | | | | | | | | | | | |
| **Pesticides - Ground Water** | | | | | | | | | | | |
| 4,4' -DDD | ND | 0.003 | 99 | 95 | 4.1 | 108 | 75 | 36.1 | 40 - 140 | 20 | r |
| 4,4' -DDE | ND | 0.003 | 84 | 71 | 16.8 | 76 | 87 | 13.5 | 40 - 140 | 20 | |
| 4,4' -DDT | ND | 0.003 | 90 | 92 | 2.2 | 89 | 84 | 5.8 | 40 - 140 | 20 | |
| a-BHC | ND | 0.002 | 82 | 62 | 27.8 | 84 | 76 | 10.0 | 40 - 140 | 20 | r |
| Alachlor | ND | 0.005 | NA | NA | NC | NA | NA | NC | 40 - 140 | 20 | |
| Aldrin | ND | 0.002 | 59 | 48 | 20.6 | 57 | 58 | 1.7 | 40 - 140 | 20 | r |
| b-BHC | ND | 0.002 | 89 | 77 | 14.5 | 68 | 66 | 3.0 | 40 - 140 | 20 | |
| Chlordane | ND | 0.050 | 87 | 73 | 17.5 | 72 | 74 | 2.7 | 40 - 140 | 20 | |
| d-BHC | ND | 0.005 | 90 | 106 | 16.3 | 80 | 74 | 7.8 | 40 - 140 | 20 | |
| Dieldrin | ND | 0.002 | 90 | 74 | 19.5 | 84 | 81 | 3.6 | 40 - 140 | 20 | |
| Endosulfan I | ND | 0.005 | 70 | 60 | 15.4 | 63 | 69 | 9.1 | 40 - 140 | 20 | |
| Endosulfan II | ND | 0.005 | 91 | 79 | 14.1 | 88 | 81 | 8.3 | 40 - 140 | 20 | |
| Endosulfan sulfate | ND | 0.005 | 73 | 68 | 7.1 | 68 | 64 | 6.1 | 40 - 140 | 20 | |
| Endrin | ND | 0.005 | 97 | 82 | 16.8 | 94 | 96 | 2.1 | 40 - 140 | 20 | |
| Endrin aldehyde | ND | 0.005 | 81 | 74 | 9.0 | 71 | 66 | 7.3 | 40 - 140 | 20 | |
| Endrin ketone | ND | 0.005 | 91 | 85 | 6.8 | 86 | 80 | 7.2 | 40 - 140 | 20 | |
| g-BHC | ND | 0.002 | 86 | 71 | 19.1 | 78 | 72 | 8.0 | 40 - 140 | 20 | |
| Heptachlor | ND | 0.005 | 74 | 63 | 16.1 | 77 | 69 | 11.0 | 40 - 140 | 20 | |
| Heptachlor epoxide | ND | 0.005 | 87 | 74 | 16.1 | 80 | 75 | 6.5 | 40 - 140 | 20 | |
| Methoxychlor | ND | 0.005 | 76 | 70 | 8.2 | 65 | 86 | 27.8 | 40 - 140 | 20 | r |
| Toxaphene | ND | 0.20 | NA | NA | NC | NA | NA | NC | 40 - 140 | 20 | |
| % DCBP | 96 | % | 86 | 81 | 6.0 | 79 | 94 | 17.3 | 30 - 150 | 20 | |
| % TCMX | 86 | % | 66 | 56 | 16.4 | 67 | 76 | 12.6 | 30 - 150 | 20 | |
| QA/QC Batch 449660 (ug/L), QC Sample No: CB61091 (CB61089, CB61090, CB61091) | | | | | | | | | | | |
| **Semivolatiles by SIM, PAH - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 70 | 72 | 2.8 | 74 | | | 30 - 130 | 20 | |
| Acenaphthene | ND | 0.05 | 78 | 79 | 1.3 | 81 | | | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 67 | 69 | 2.9 | 70 | | | 30 - 130 | 20 | |
| Anthracene | ND | 0.02 | 81 | 83 | 2.4 | 83 | | | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 83 | 86 | 3.6 | 79 | | | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 77 | 80 | 3.8 | 68 | | | 30 - 130 | 20 | |
| Benzo(b)fluoranthene | ND | 0.02 | 78 | 81 | 3.8 | 76 | | | 30 - 130 | 20 | |
| Benzo(ghi)perylene | ND | 0.02 | 70 | 63 | 10.5 | 50 | | | 30 - 130 | 20 | |
| Benzo(k)fluoranthene | ND | 0.02 | 76 | 78 | 2.6 | 68 | | | 30 - 130 | 20 | |
| Chrysene | ND | 0.02 | 79 | 82 | 3.7 | 72 | | | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 85 | 75 | 12.5 | 60 | | | 30 - 130 | 20 | |
| Fluoranthene | ND | 0.04 | 70 | 70 | 0.0 | 70 | | | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 80 | 82 | 2.5 | 82 | | | 30 - 130 | 20 | |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 79 | 71 | 10.7 | 58 | | | 30 - 130 | 20 | |
| Naphthalene | ND | 0.05 | 51 | 52 | 1.9 | 55 | | | 30 - 130 | 20 | |
| Phenanthrene | ND | 0.05 | 77 | 79 | 2.6 | 79 | | | 30 - 130 | 20 | |

# QA/QC Data

SDG I.D.: GCB61089

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| Pyrene | ND | 0.02 | 70 | 71 | 1.4 | 71 | | | 30 - 130 | 20 |
| % 2-Fluorobiphenyl | 71 | % | 73 | 75 | 2.7 | 75 | | | 30 - 130 | 20 |
| % Nitrobenzene-d5 | 75 | % | 70 | 70 | 0.0 | 78 | | | 30 - 130 | 20 |
| % Terphenyl-d14 | 63 | % | 67 | 66 | 1.5 | 57 | | | 30 - 130 | 20 |

Comment:

This batch consist 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%)

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

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

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

Phyllis Shiller, Laboratory Director
October 09, 2018

Tuesday, October 09, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCB61089 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CB61089 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.007 | 0.004 | 0.004 | 0.004 | mg/L |
| CB61090 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.015 | 0.004 | 0.004 | 0.004 | mg/L |
| CB61090 | PB-WM | Lead | CT / RSR GWPC (ug/l) / Inorganics | 0.030 | 0.002 | 0.015 | 0.015 | mg/L |
| CB61090 | PB-WM | Lead | CT / RSR SWPC (ug/l) / Inorganics | 0.030 | 0.002 | 0.013 | 0.013 | mg/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:*** AECOM

***Project Location:*** GREENWICH HIGH SCHOOL ***Project Number:***

***Laboratory Sample ID(s):*** CB61089-CB61091 ***Sampling Date(s):*** 9/27/2018, 9/28/2018

***List RCP Methods Used (e.g., 8260, 8270, et cetera)*** 6010, 7470/7471, 8081, 8270

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Tuesday, October 09, 2018

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

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

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

October 09, 2018

SDG I.D.: GCB61089

## *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.

## *Mercury Narration*

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

### Instrument:

**MERLIN 10/01/18 08:07** Rick Schweitzer, Chemist 10/01/18

CB61089, CB61090, CB61091

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 449625 (CB61091)**

CB61089, CB61090, CB61091

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 10/02/18 12:41** Cindy Pearce, Tina Hall, Chemist 10/02/18

CB61089, CB61090, CB61091

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

### QC (Site Specific):

**Batch 449756 (CB61091)**

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

October 09, 2018

SDG I.D.: GCB61089

## *ICP Metals Narration*

CB61089, CB61090, CB61091

All LCS recoveries were within 75 - 125 with the following exceptions: None.
All MS 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 10/03/18 10:45** Cindy Pearce, Chemist 10/03/18

CB61089, CB61090, CB61091

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 449752 (CB61091)**

CB61089, CB61090, CB61091

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

## *PEST Narration*

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

**QC Batch 449559 (Samples: CB61090, CB61091): -----**

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

**The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (4,4" -DDD, Methoxychlor)**

### Instrument:

**AU-ECD10 10/01/18-1** Carol Wohlmuth, Chemist 10/01/18

CB61090, CB61091

The initial calibration (PSO01AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PSO01BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

### QC (Site Specific):

**Batch 449559 (CB61091)**

CB61090, CB61091

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# RCP Certification Report

October 09, 2018

SDG I.D.: GCB61089

## *PEST 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 20% with the following exceptions: a-BHC(27.8%), Aldrin(20.6%)
All MS recoveries were within 30 - 150 with the following exceptions: None.
All MSD recoveries were within 30 - 150 with the following exceptions: None.
All MS/MSD RPDs were less than 20% with the following exceptions: 4,4' -DDD(36.1%), Methoxychlor(27.8%)

## *SVOASIM Narration*

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

### Instrument:

**CHEM25 10/01/18-1** Harry Mullin, Chemist 10/01/18

CB61089, CB61090, CB61091

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM25/bnSIM_0926):
100% of target compounds met criteria.
The following compounds had %RSDs >20%: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet a minimum response factors: None.

Continuing Calibration Verification (CHEM25/1001_19-bnSIM_0926):
Internal standard areas were within 50 to 200% of the initial calibration with the following exceptions: None.
100% of target compounds met criteria.
The following compounds did not meet % deviation criteria: None.
The following compounds did not meet maximum % deviations: None.
The following compounds did not meet recommended response factors: None.
The following compounds did not meet minimum response factors: None.

### QC (Site Specific):

**Batch 449660 (CB61091)**

CB61089, CB61090, CB61091

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.
All MS recoveries were within 30 - 130 with the following exceptions: None.
This batch consist 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%)

## *Temperature Narration*

The samples were received at 3.0C 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 [ ]
Temp 3.0 °C Pg of

# 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: matthew.rood@aecom.com

Customer: AECOM (Matt Rood)
Address: 500 Enterprise Dr, Suite 1A
Rocky Hill, CT 06067

Project: Greenwich High School
Report to: Matt Rood, Neil Flahive
Invoice to: Matt Rood
QUOTE #

Project P.O:

***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 | CT RSR Metals | PAHs - SIM | Pesticides | 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 [ ] 500ml [ ] 1000ml | PL As is [ ] 250ml [ ] 250ml [ ] 500ml | PL H2SO4 [ ] 250ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 601089 | MW-AH16[illegible] | GW | 9/28/18 | [illegible] | X | X | | | | | | | | 2 | | | 1 | | | |
| 601090 | MW-35-092818-1 | GW | 9/28/18 | 1105 | X | X | X | | | | | | | 3 | | | 1 | | | |
| 601091 | MW-28-092818-1 | GW | 9/28/18 | 1050 | X | X | X | | | | | | | 9 | | | 3 | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| E. Albrecht | [signature] | 9/28/18 | 1318 |
| [signature] | TROUUUN | 9/28/18 | 1610 |

**Comments, Special Requirements or Regulations:**
MW-28-092818-1 is the MS/MSD for PAHs, pesticides, and metals.

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

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

**CT**
[X] RCP Cert
[X] 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
[X] EQuIS
[ ] Other

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

* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

**Wednesday, October 03, 2018**

**Attn: Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: GREENWICH HIGH SCHOOL**
**Sample ID#s: CB38518 - CB38520**

**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**

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

October 03, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/25/18 | 9:30 |
| Location Code: | AECOM-CT | Received by: | CP | 09/25/18 | 15:35 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCB38518
Phoenix ID: CB38518

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-P7-092518-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Barium | 0.145 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 09/26/18 | RS | SW7470A |
| Nickel | 0.003 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Zinc | 0.010 | 0.004 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/26/18 | Q/Q | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 09/25/18 | P/R | SW3520C |
| Total Metals Digestion | Completed | | | | 09/26/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/26/18 | AG | |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-P7-092518-1

Phoenix I.D.: CB38518

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 60 | | % | 1 | 09/27/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 81 | | % | 1 | 09/27/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 58 | | % | 1 | 09/27/18 | 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:

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 03, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

October 03, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/25/18 | 11:35 |
| Location Code: | AECOM-CT | Received by: | CP | 09/25/18 | 15:35 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCB38518
Phoenix ID: CB38519

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-S15 092518-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Arsenic | 0.007 | 0.004 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Barium | 0.134 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Chromium | 0.002 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 09/26/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | 0.004 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Zinc | < 0.004 | 0.004 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/26/18 | Q/Q | SW7470A |
| Extraction for Pest (2 Liter) | Completed | | | | 09/25/18 | U | SW3510C |
| Semi-Volatile Extraction | Completed | | | | 09/25/18 | P/R | SW3520C |
| Total Metals Digestion | Completed | | | | 09/26/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/26/18 | AG | |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Aldrin | ND | 0.001 | ug/L | 1 | 09/26/18 | CW | SW8081B |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-S15 092518-1

Phoenix I.D.: CB38519

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| b-BHC | ND | 0.005 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 43 | | % | 1 | 09/26/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 45 | | % | 1 | 09/26/18 | CW | 30 - 150 % |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(ghi)perylene | 0.19 | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | 0.13 | 0.01 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | 0.18 | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 54 | | % | 1 | 09/27/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 67 | | % | 1 | 09/27/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 47 | | % | 1 | 09/27/18 | HM | 30 - 130 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-S15 092518-1

Phoenix I.D.: CB38519

| 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:

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 03, 2018**

**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

October 03, 2018

FOR: Attn: Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/25/18 | 11:40 |
| Location Code: | AECOM-CT | Received by: | CP | 09/25/18 | 15:35 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | | | | | |

## Laboratory Data

SDG ID: GCB38518
Phoenix ID: CB38520

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-S15 092518-2

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Arsenic | 0.006 | 0.004 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Barium | 0.132 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Chromium | 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 09/26/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | 0.004 | 0.002 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Zinc | < 0.004 | 0.004 | mg/L | 1 | 09/29/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 09/26/18 | Q/Q | SW7470A |
| Extraction for Pest (2 Liter) | Completed | | | | 09/25/18 | U | SW3510C |
| Semi-Volatile Extraction | Completed | | | | 09/25/18 | P/R | SW3520C |
| Total Metals Digestion | Completed | | | | 09/26/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/26/18 | AG | |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Aldrin | ND | 0.005 | ug/L | 1 | 09/26/18 | CW | SW8081B |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-S15 092518-2

Phoenix I.D.: CB38520

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| b-BHC | ND | 0.005 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 09/26/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 36 | | % | 1 | 09/26/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 46 | | % | 1 | 09/26/18 | CW | 30 - 150 % |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/27/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 61 | | % | 1 | 09/27/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 75 | | % | 1 | 09/27/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 48 | | % | 1 | 09/27/18 | HM | 30 - 130 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-S15 092518-2

Phoenix I.D.: CB38520

| 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:

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

**October 03, 2018**

**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# QA/QC Report

October 03, 2018

## QA/QC Data

SDG I.D.: GCB38518

| 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 449036 (mg/L), QC Sample No: CB38242 (CB38518, CB38519, CB38520) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 80.9 | | | 78.0 | | | 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 449145 (mg/L), QC Sample No: CB38333 (CB38518, CB38519, CB38520) | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 98.5 | | | 98.8 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 100 | | | 99.5 | | | 75 - 125 | 20 |
| Barium | BRL | 0.002 | <0.002 | <0.002 | NC | 102 | | | 102 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 103 | | | 103 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 103 | | | 103 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 102 | | | 102 | | | 75 - 125 | 20 |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 102 | | | 101 | | | 75 - 125 | 20 |
| Lead | BRL | 0.002 | 0.003 | <0.002 | NC | 100 | | | 99.1 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.001 | <0.001 | <0.001 | NC | 101 | | | 101 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 97.3 | | | 96.2 | | | 75 - 125 | 20 |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 97.8 | | | 97.4 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 99.8 | | | 99.8 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.004 | 0.026 | 0.026 | 0 | 101 | | | 100 | | | 75 - 125 | 20 |
| QA/QC Batch 449105 (mg/L), QC Sample No: CB39129 5X (CB38518, CB38519, CB38520) | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 105 | | | 98.2 | | | 75 - 125 | 20 |

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

# QA/QC Report

October 03, 2018

## QA/QC Data

SDG I.D.: GCB38518

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 448936 (ug/L), QC Sample No: CB23998 (CB38519, CB38520) | | | | | | | | | | | |
| **Pesticides - Ground Water** | | | | | | | | | | | |
| 4,4' -DDD | ND | 0.003 | 103 | 100 | 3.0 | | | | 40 - 140 | 20 | |
| 4,4' -DDE | ND | 0.003 | 90 | 84 | 6.9 | | | | 40 - 140 | 20 | |
| 4,4' -DDT | ND | 0.003 | 101 | 98 | 3.0 | | | | 40 - 140 | 20 | |
| a-BHC | ND | 0.002 | 90 | 88 | 2.2 | | | | 40 - 140 | 20 | |
| Alachlor | ND | 0.005 | NA | NA | NC | | | | 40 - 140 | 20 | |
| Aldrin | ND | 0.002 | 74 | 62 | 17.6 | | | | 40 - 140 | 20 | |
| b-BHC | ND | 0.002 | 108 | 105 | 2.8 | | | | 40 - 140 | 20 | |
| Chlordane | ND | 0.050 | 98 | 93 | 5.2 | | | | 40 - 140 | 20 | |
| d-BHC | ND | 0.005 | 106 | 136 | 24.8 | | | | 40 - 140 | 20 | r |
| Dieldrin | ND | 0.002 | 96 | 92 | 4.3 | | | | 40 - 140 | 20 | |
| Endosulfan I | ND | 0.005 | 107 | 92 | 15.1 | | | | 40 - 140 | 20 | |
| Endosulfan II | ND | 0.005 | 110 | 106 | 3.7 | | | | 40 - 140 | 20 | |
| Endosulfan sulfate | ND | 0.005 | 114 | 109 | 4.5 | | | | 40 - 140 | 20 | |
| Endrin | ND | 0.005 | 106 | 103 | 2.9 | | | | 40 - 140 | 20 | |
| Endrin aldehyde | ND | 0.005 | 108 | 106 | 1.9 | | | | 40 - 140 | 20 | |
| Endrin ketone | ND | 0.005 | 117 | 109 | 7.1 | | | | 40 - 140 | 20 | |
| g-BHC | ND | 0.002 | 92 | 89 | 3.3 | | | | 40 - 140 | 20 | |
| Heptachlor | ND | 0.005 | 86 | 77 | 11.0 | | | | 40 - 140 | 20 | |
| Heptachlor epoxide | ND | 0.005 | 102 | 98 | 4.0 | | | | 40 - 140 | 20 | |
| Methoxychlor | ND | 0.005 | 101 | 98 | 3.0 | | | | 40 - 140 | 20 | |
| Toxaphene | ND | 0.20 | NA | NA | NC | | | | 40 - 140 | 20 | |
| % DCBP | 76 | % | 84 | 92 | 9.1 | | | | 30 - 150 | 20 | |
| % TCMX | 86 | % | 97 | 98 | 1.0 | | | | 30 - 150 | 20 | |

Comment:

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

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 448943 (ug/L), QC Sample No: CB38051 (CB38518, CB38519, CB38520) | | | | | | | | | | | |
| **Semivolatiles by SIM, PAH - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 57 | 45 | 23.5 | | | | 30 - 130 | 20 | r |
| Acenaphthene | ND | 0.05 | 69 | 63 | 9.1 | | | | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 58 | 53 | 9.0 | | | | 30 - 130 | 20 | |
| Anthracene | ND | 0.02 | 73 | 69 | 5.6 | | | | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 76 | 73 | 4.0 | | | | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 80 | 77 | 3.8 | | | | 30 - 130 | 20 | |
| Benzo(b)fluoranthene | ND | 0.02 | 81 | 78 | 3.8 | | | | 30 - 130 | 20 | |
| Benzo(ghi)perylene | ND | 0.02 | 74 | 67 | 9.9 | | | | 30 - 130 | 20 | |
| Benzo(k)fluoranthene | ND | 0.02 | 92 | 84 | 9.1 | | | | 30 - 130 | 20 | |
| Chrysene | ND | 0.02 | 78 | 73 | 6.6 | | | | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 94 | 86 | 8.9 | | | | 30 - 130 | 20 | |
| Fluoranthene | ND | 0.04 | 73 | 69 | 5.6 | | | | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 69 | 63 | 9.1 | | | | 30 - 130 | 20 | |

# QA/QC Data

SDG I.D.: GCB38518

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 82 | 76 | 7.6 | | | | 30 - 130 | 20 | |
| Naphthalene | ND | 0.05 | 54 | 41 | 27.4 | | | | 30 - 130 | 20 | r |
| Phenanthrene | ND | 0.05 | 71 | 66 | 7.3 | | | | 30 - 130 | 20 | |
| Pyrene | ND | 0.02 | 74 | 71 | 4.1 | | | | 30 - 130 | 20 | |
| % 2-Fluorobiphenyl | 51 | % | 59 | 52 | 12.6 | | | | 30 - 130 | 20 | |
| % Nitrobenzene-d5 | 54 | % | 49 | 46 | 6.3 | | | | 30 - 130 | 20 | |
| % Terphenyl-d14 | 68 | % | 72 | 71 | 1.4 | | | | 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%)

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 03, 2018

Wednesday, October 03, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCB38518 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CB38519 | $8100CTSIMR | Indeno(1,2,3-cd)pyrene | CT / RSR GWPC (ug/l) / APS Organics | 0.18 | 0.05 | 0.1 | 0.1 | ug/L |
| CB38519 | $8100CTSIMR | Dibenz(a,h)anthracene | CT / RSR GWPC (ug/l) / APS Organics | 0.13 | 0.01 | 0.1 | 0.1 | ug/L |
| CB38519 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.007 | 0.004 | 0.004 | 0.004 | mg/L |
| CB38520 | AS-WM | Arsenic | CT / RSR SWPC (ug/l) / Inorganics | 0.006 | 0.004 | 0.004 | 0.004 | mg/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:*** AECOM

***Project Location:*** GREENWICH HIGH SCHOOL ***Project Number:***

***Laboratory Sample ID(s):*** CB38518-CB38520 ***Sampling Date(s):*** 9/25/2018

***List RCP Methods Used (e.g., 8260, 8270, et cetera)*** 6010, 7470/7471, 8081, 8270

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Wednesday, October 03, 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

October 03, 2018

SDG I.D.: GCB38518

## *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.

## *Mercury Narration*

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

### Instrument:

**MERLIN 09/26/18 08:03** Rick Schweitzer, Chemist 09/26/18

CB38518, CB38519, CB38520

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 449036 (CB38242)**

CB38518, CB38519, CB38520

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:

**ARCOS 09/28/18 12:53** Cindy Pearce, Chemist 09/28/18

CB38518, CB38519, CB38520

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 449145 (CB38333)**

CB38518, CB38519, CB38520

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

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**Tel. (860) 645-1102 Fax (860) 645-0823**

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

October 03, 2018

SDG I.D.: GCB38518

## *ICPMS Metals Narration*

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

### Instrument:

**ICPMS 10/01/18 16:48** Cindy Pearce, Chemist 10/01/18

CB38518, CB38519, CB38520

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 449105 (CB39129)**

CB38518, CB38519, CB38520

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

## *PEST Narration*

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

**QC Batch 448936 (Samples: CB38519, CB38520): -----**

**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. (d-BHC)**

### Instrument:

**AU-ECD4 09/26/18-1** Carol Wohlmuth, Chemist 09/26/18

CB38519, CB38520

The initial calibration (PS831AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS831BI) RSD for the compound list was less than 20% except for the following compounds: None.
The Endrin and DDT breakdown does not exceed 15% except for the following compounds:None.
The Endrin and DDT breakdown does not exceed the maximum of 20% except for the following compounds:None.
The continuing calibration %D for the compound list was less than 20% except for the following compounds:None.

### QC (Batch Specific):

**Batch 448936 (CB23998)**

CB38519, CB38520

All LCS recoveries were within 40 - 140 with the following exceptions: None.
All LCSD recoveries were within 40 - 140 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: d-BHC(24.8%)
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

## *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

October 03, 2018

SDG I.D.: GCB38518

## *SVOASIM Narration*

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

**QC Batch 448943 (Samples: CB38518, CB38519, CB38520): -----**

**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, Naphthalene)**

### Instrument:

**CHEM27 09/26/18-2** Harry Mullin, Chemist 09/26/18

CB38518, CB38519, CB38520

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/bnSIM_0924a):
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 (CHEM27/0926_31-bnSIM_0924a):
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 448943 (CB38051)**

CB38518, CB38519, CB38520

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-Methylnaphthalene(23.5%), Naphthalene(27.4%)
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

## *Temperature Narration*

The samples were received at 1.6C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [redacted] No ☐
Coolant: IPK ☐ ICE [redacted] No ☐

# CHAIN OF CUSTODY RECORD

Temp 1.0 °C Pg of

**PHOENIX** Environmental Laboratories, Inc.

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

**Data Delivery/Contact Options:**
☐ Fax: NCIP
☐ Phone:
☒ Email: matthew.rood@aecom.com

Customer: AECOM (Matt Rood)
Address: 500 Enterprise Dr, Suite 1A
Rocky Hill, CT 06067

Project: Greenwich High School
Report to: Matt Rood, Neil Flahive
Invoice to: Matt Rood
QUOTE #

Project P.O:

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

**Client Sample - Information - Identification**

Sampler's Signature: [signature] Date: 9/25/18

**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 **W**=Wipe **OIL**=Oil
**B**=Bulk **L**=Liquid

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | CT RSR Metals | PAHs - SIM | Pesticides | 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 | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 38518 | MW-[illegible]-092518-1 | GW | 9/25/18 | 930 | X | X | | | | | | 2 | | X | 1 | | | | |
| 38519 | MW-515-092518-1 | GW | 9/25/18 | 1135 | X | X | X | | | | | 3 | | | 1 | | | | |
| 38520 | MW-515-092518-2 | GW | 9/25/18 | 1140 | X | X | X | | | | | 3 | | | 1 | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| [signature] | [signature] | 9/25/18 | 12:44 |
| [signature] | TRAN | 9/25/18 | 15:35 |

**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

**State where samples were collected:** CT

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

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

* SURCHARGE APPLIES

PHOENIX
Environmental Laboratories, Inc.

**Friday, October 05, 2018**

**Attn: Mr. Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: GREENWICH HIGH SCHOOL**
**Sample ID#s: CB60230 - CB60232**

**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**

**587 East Middle Turnpike, P.O. Box 370, Manchester, CT 06040**
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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 05, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/27/18 | 8:15 |
| Location Code: | AECOM-CT | Received by: | LB | 09/27/18 | 14:30 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB60230
Phoenix ID: CB60230

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AJ13-092718-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Barium | 0.037 | 0.002 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 10/01/18 | RS | SW7470A |
| Nickel | 0.007 | 0.001 | mg/L | 1 | 10/02/18 | TH | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 10/01/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 10/02/18 | EK | SW6010C |
| Zinc | 3.69 | 0.040 | mg/L | 10 | 10/04/18 | TH | SW6010C |
| Mercury Digestion | Completed | | | | 09/30/18 | Q/Q | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 09/28/18 | P/D | SW3520C |
| Total Metals Digestion | Completed | | | | 10/01/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 09/28/18 | AG | |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AJ13-092718-1

Phoenix I.D.: CB60230

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 09/29/18 | HM | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 60 | | % | 1 | 09/29/18 | HM | 30 - 130 % |
| % Nitrobenzene-d5 | 72 | | % | 1 | 09/29/18 | HM | 30 - 130 % |
| % Terphenyl-d14 | 56 | | % | 1 | 09/29/18 | 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:

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 05, 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 05, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/27/18 | 9:35 |
| Location Code: | AECOM-CT | Received by: | LB | 09/27/18 | 14:30 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB60230
Phoenix ID: CB60231

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AM16R-092718-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Extraction for Pest (2 Liter) | Completed | | | | 09/27/18 | U/N | SW3510C |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| a-BHC | ND | 0.025 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Alachlor | ND | 0.074 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Aldrin | ND | 0.050 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| b-BHC | ND | 0.030 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Chlordane | ND | 0.29 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| d-BHC | ND | 0.050 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Dieldrin | ND | 0.002 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endosulfan I | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endosulfan II | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endrin | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endrin ketone | ND | 0.049 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.025 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Heptachlor | ND | 0.025 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.025 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Methoxychlor | ND | 0.098 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Toxaphene | ND | 0.98 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 79 | | % | 1 | 09/29/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 101 | | % | 1 | 09/29/18 | CW | 30 - 150 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-AM16R-092718-1

Phoenix I.D.: CB60231

| 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:

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 05, 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 05, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 09/27/18 | 13:05 |
| Location Code: | AECOM-CT | Received by: | LB | 09/27/18 | 14:30 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB60230
Phoenix ID: CB60232

Project ID: GREENWICH HIGH SCHOOL
Client ID: MW-AV17-092718-1

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Extraction for Pest (2 Liter) | Completed | | | | 09/27/18 | U/N | SW3510C |
| **Pesticides** | | | | | | | |
| 4,4' -DDD | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| 4,4' -DDE | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| 4,4' -DDT | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| a-BHC | ND | 0.024 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Alachlor | ND | 0.071 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Aldrin | ND | 0.001 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| b-BHC | ND | 0.005 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Chlordane | ND | 0.28 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| d-BHC | ND | 0.024 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Dieldrin | ND | 0.001 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endosulfan I | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endosulfan II | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endosulfan Sulfate | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endrin | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endrin Aldehyde | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Endrin ketone | ND | 0.047 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| g-BHC (Lindane) | ND | 0.024 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Heptachlor | ND | 0.024 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Heptachlor epoxide | ND | 0.024 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Methoxychlor | ND | 0.094 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| Toxaphene | ND | 0.94 | ug/L | 1 | 09/29/18 | CW | SW8081B |
| **QA/QC Surrogates** | | | | | | | |
| %DCBP (Surrogate Rec) | 96 | | % | 1 | 09/29/18 | CW | 30 - 150 % |
| %TCMX (Surrogate Rec) | 89 | | % | 1 | 09/29/18 | CW | 30 - 150 % |

Project ID: GREENWICH HIGH SCHOOL

Client ID: MW-AV17-092718-1

Phoenix I.D.: CB60232

| 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:

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

**October 05, 2018**

**Reviewed and Released by: Phyllis Shiller, Laboratory Director**

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# QA/QC Report

October 05, 2018

## QA/QC Data

SDG I.D.: GCB60230

| 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 449419 (mg/L), QC Sample No: CB59733 (CB60230) | | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 82.8 | | | 74.3 | | | 80 - 120 | 20 | 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 449547 (mg/L), QC Sample No: CB60779 5X (CB60230) | | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 98.2 | | | 103 | | | 75 - 125 | 20 | |
| QA/QC Batch 449757 (mg/L), QC Sample No: CB61413 (CB60230) | | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 105 | | | 105 | | | 75 - 125 | 20 | |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 99.0 | | | 99.8 | | | 75 - 125 | 20 | |
| Barium | BRL | 0.002 | 0.051 | 0.049 | 4.00 | 102 | | | 102 | | | 75 - 125 | 20 | |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 105 | | | 106 | | | 75 - 125 | 20 | |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 102 | | | 99.6 | | | 75 - 125 | 20 | |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 102 | | | 102 | | | 75 - 125 | 20 | |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 101 | | | 103 | | | 75 - 125 | 20 | |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 101 | | | 99.9 | | | 75 - 125 | 20 | |
| Nickel | BRL | 0.001 | 0.008 | 0.008 | 0 | 103 | | | 99.3 | | | 75 - 125 | 20 | |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 96.7 | | | 96.9 | | | 75 - 125 | 20 | |
| Silver | BRL | 0.001 | 0.003 | 0.001 | NC | 101 | | | 103 | | | 75 - 125 | 20 | |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 102 | | | 103 | | | 75 - 125 | 20 | |
| Zinc | BRL | 0.004 | <0.004 | <0.004 | NC | 102 | | | 101 | | | 75 - 125 | 20 | |

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

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# QA/QC Report

October 05, 2018

## QA/QC Data

SDG I.D.: GCB60230

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 449538 (ug/L), QC Sample No: CB59831 (CB60230) | | | | | | | | | | |
| **Semivolatiles by SIM, PAH - Ground Water** | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 64 | 62 | 3.2 | | | | 30 - 130 | 20 |
| Acenaphthene | ND | 0.05 | 77 | 80 | 3.8 | | | | 30 - 130 | 20 |
| Acenaphthylene | ND | 0.04 | 69 | 67 | 2.9 | | | | 30 - 130 | 20 |
| Anthracene | ND | 0.02 | 77 | 76 | 1.3 | | | | 30 - 130 | 20 |
| Benz(a)anthracene | ND | 0.02 | 80 | 77 | 3.8 | | | | 30 - 130 | 20 |
| Benzo(a)pyrene | ND | 0.02 | 84 | 81 | 3.6 | | | | 30 - 130 | 20 |
| Benzo(b)fluoranthene | ND | 0.02 | 73 | 72 | 1.4 | | | | 30 - 130 | 20 |
| Benzo(ghi)perylene | ND | 0.02 | 76 | 73 | 4.0 | | | | 30 - 130 | 20 |
| Benzo(k)fluoranthene | ND | 0.02 | 65 | 62 | 4.7 | | | | 30 - 130 | 20 |
| Chrysene | ND | 0.02 | 79 | 78 | 1.3 | | | | 30 - 130 | 20 |
| Dibenz(a,h)anthracene | ND | 0.01 | 97 | 92 | 5.3 | | | | 30 - 130 | 20 |
| Fluoranthene | ND | 0.04 | 75 | 74 | 1.3 | | | | 30 - 130 | 20 |
| Fluorene | ND | 0.05 | 77 | 75 | 2.6 | | | | 30 - 130 | 20 |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 87 | 84 | 3.5 | | | | 30 - 130 | 20 |
| Naphthalene | ND | 0.05 | 64 | 62 | 3.2 | | | | 30 - 130 | 20 |
| Phenanthrene | ND | 0.05 | 75 | 74 | 1.3 | | | | 30 - 130 | 20 |
| Pyrene | ND | 0.02 | 77 | 76 | 1.3 | | | | 30 - 130 | 20 |
| % 2-Fluorobiphenyl | 66 | % | 70 | 69 | 1.4 | | | | 30 - 130 | 20 |
| % Nitrobenzene-d5 | 88 | % | 67 | 67 | 0.0 | | | | 30 - 130 | 20 |
| % Terphenyl-d14 | 71 | % | 74 | 74 | 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%)

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 449333 (ug/L), QC Sample No: CB59954 (CB60231, CB60232) | | | | | | | | | | |
| **Pesticides - Ground Water** | | | | | | | | | | |
| 4,4' -DDD | ND | 0.003 | 81 | 94 | 14.9 | | | | 40 - 140 | 20 |
| 4,4' -DDE | ND | 0.003 | 72 | 75 | 4.1 | | | | 40 - 140 | 20 |
| 4,4' -DDT | ND | 0.003 | 80 | 88 | 9.5 | | | | 40 - 140 | 20 |
| a-BHC | ND | 0.002 | 73 | 82 | 11.6 | | | | 40 - 140 | 20 |
| Alachlor | ND | 0.005 | NA | NA | NC | | | | 40 - 140 | 20 |
| Aldrin | ND | 0.002 | 31 | 30 | 3.3 | | | | 40 - 140 | 20 |
| b-BHC | ND | 0.002 | 89 | 95 | 6.5 | | | | 40 - 140 | 20 |
| Chlordane | ND | 0.050 | 65 | 73 | 11.6 | | | | 40 - 140 | 20 |
| d-BHC | ND | 0.005 | 81 | 87 | 7.1 | | | | 40 - 140 | 20 |
| Dieldrin | ND | 0.005 | 77 | 90 | 15.6 | | | | 40 - 140 | 20 |
| Endosulfan I | ND | 0.005 | 82 | 91 | 10.4 | | | | 40 - 140 | 20 |
| Endosulfan II | ND | 0.005 | 86 | 98 | 13.0 | | | | 40 - 140 | 20 |
| Endosulfan sulfate | ND | 0.005 | 75 | 88 | 16.0 | | | | 40 - 140 | 20 |
| Endrin | ND | 0.005 | 76 | 84 | 10.0 | | | | 40 - 140 | 20 |
| Endrin aldehyde | ND | 0.005 | 100 | 105 | 4.9 | | | | 40 - 140 | 20 |
| Endrin ketone | ND | 0.005 | 77 | 87 | 12.2 | | | | 40 - 140 | 20 |

# QA/QC Data

SDG I.D.: GCB60230

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits |
|---|---|---|---|---|---|---|---|---|---|---|
| g-BHC | ND | 0.002 | 78 | 84 | 7.4 | | | | 40 - 140 | 20 |
| Heptachlor | ND | 0.005 | 49 | 50 | 2.0 | | | | 40 - 140 | 20 |
| Heptachlor epoxide | ND | 0.005 | 81 | 89 | 9.4 | | | | 40 - 140 | 20 |
| Methoxychlor | ND | 0.005 | 105 | 126 | 18.2 | | | | 40 - 140 | 20 |
| Toxaphene | ND | 0.20 | NA | NA | NC | | | | 40 - 140 | 20 |
| % DCBP | 79 | % | 96 | 97 | 1.0 | | | | 30 - 150 | 20 |
| % TCMX | 122 | % | 72 | 84 | 15.4 | | | | 30 - 150 | 20 |

Comment:

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

I = 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
October 05, 2018

Friday, October 05, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCB60230 - AECOM-CT

| SampNo | Acode | Phoenix Analyte | Criteria | Result | RL | Criteria | RL Criteria | Analysis Units |
|---|---|---|---|---|---|---|---|---|
| CB60230 | ZN-WM | Zinc | CT / RSR SWPC (ug/l) / Inorganics | 3.69 | 0.040 | 0.123 | 0.123 | mg/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:*** AECOM

***Project Location:*** GREENWICH HIGH SCHOOL ***Project Number:***

***Laboratory Sample ID(s):*** CB60230-CB60232 ***Sampling Date(s):*** 9/27/2018

***List RCP Methods Used (e.g., 8260, 8270, et cetera)*** 6010, 7470/7471, 8081, 8270

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Friday, October 05, 2018

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

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

PHOENIX

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

# RCP Certification Report

October 05, 2018

SDG I.D.: GCB60230

## *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.

## *Mercury Narration*

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

### Instrument:

**MERLIN 10/01/18 08:07** Rick Schweitzer, Chemist 10/01/18

CB60230

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 449419 (CB59733)**

CB60230

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 10/01/18 11:05** Emily Kolominskaya, Tina Hall, Chemist 10/01/18

CB60230

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

**BLUE 10/03/18 07:56** Emily Kolominskaya, Tina Hall, Chemist 10/03/18

CB60230

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

PHOENIX

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# Certification Report

October 05, 2018

SDG I.D.: GCB60230

## *ICP Metals Narration*

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 449757 (CB61413)**

CB60230

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 10/01/18 16:48** Cindy Pearce, Chemist 10/01/18

CB60230

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 449547 (CB60779)**

CB60230

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

## *PEST Narration*

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

**QC Batch 449333 (Samples: CB60231, CB60232): -----**

**One or more analytes is below the method criteria. A low bias for these analytes is possible. (Aldrin)**

### Instrument:

**AU-ECD35 09/28/18-2** Carol Wohlmuth, Chemist 09/28/18

CB60231

The initial calibration (PS928AI) RSD for the compound list was less than 20% except for the following compounds: None.
The initial calibration (PS928BI) 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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ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# RCP Certification Report

October 05, 2018

SDG I.D.: GCB60230

## *PEST Narration*

### QC (Batch Specific):

**Batch 449333 (CB59954)**

CB60231, CB60232

All LCS recoveries were within 40 - 140 with the following exceptions: Aldrin(31%)
All LCSD recoveries were within 40 - 140 with the following exceptions: Aldrin(30%)
All LCS/LCSD RPDs were less than 20% with the following exceptions: None.
A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD

## *SVOASIM Narration*

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

### Instrument:

**CHEM27 09/29/18-1** Harry Mullin, Chemist 09/29/18

CB60230

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/bnSIM_0924a):
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 (CHEM27/0929_03-bnSIM_0924a):
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 449538 (CB59831)**

CB60230

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%)

## *Temperature Narration*

The samples were received at 3.8C with cooling initiated.
(Note acceptance criteria for relevant matrices is above freezing up to 6°C)

Cooler: Yes [redacted] No
Coolant: IPK ☑ ICE [redacted] No
Temp 3.8 °C Pg of

# 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: matthew.rood@aecom.com

Customer: AECOM (Matt Rood)
Address: 500 Enterprise Dr, Suite 1A
Rocky Hill, CT 06067

Project: Greenwich High School
Report to: Matt Rood, Neil Flahive
Invoice to: Matt Rood
QUOTE #

Project P.O:

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

Sampler's Signature [redacted] Date: 9/27/18

**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 | CT RSR Metals | PAHs - SIM | Pesticides | 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 [X] As is [ ] H2SO4 | PL As is [ ] 250ml [ ] 500ml [ ] 1000ml | PL H2SO4 [ ] 250ml [ ] 500ml [ ] 1500ml | PL HNO3 250ml | PL NaOH 250ml | Bacteria Bottle w/thio | Bacteria Bottle as is |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 60230 | MW-AJ13-092718-1 | GW | 9/27/18 | 0815 | X | X | | | | | | 2 | | | 1 | | | | |
| 60231 | MW-AM16R-092718-1 | GW | 9/27/18 | 09[redacted] | [redacted] | | X | | | | | 1 | | | | | | | |
| 60232 | MW-AY17-092718-1 | GW | 9/27/18 | 1305 | | | X | | | | | 1 | | | | | | | |
| | ~~MW-AH16R-092718-1~~ | ~~GW~~ | ~~9/27/18~~ | | ~~X~~ | ~~X~~ | | 40 | | | | | | | | | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| E. Albrecht | [signature] | 9/27/18 | 2:15 |
| [signature] | [signature] | 9/27/18 | 14:30 |

**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
- [x] 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

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

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

* SURCHARGE APPLIES

**State where samples were collected:** CT

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

September 5, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0800.2,
Laboratory Work Order Number: 18H1261

Enclosed are results of analyses for samples received by the laboratory on August 24, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18H1261-01 5

18H1261-02 6

Sample Preparation Information 7

QC Data 8

PCB Homologues by GC/MS Water 8

B211180 8

Flag/Qualifier Summary 9

Certifications 10

Chain of Custody/Sample Receipt 11

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 9/5/2018

PURCHASE ORDER NUMBER: 104017

PROJECT NUMBER: 60432356.0800.2,

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18H1261

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AH-16D | 18H1261-01 | Ground Water | | EPA 680 Modified | |
| DUP 20180824-1 | 18H1261-02 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**B**

Analyte is found in the associated laboratory blank as well as in the sample.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B211180-BS1, B211180-BSD1

**Total Polychlorinated biphenyls**
18H1261-01[MW-AH-16D], 18H1261-02[DUP 20180824-1]

**B-05**

Data is not affected by elevated level in laboratory blank since sample(s) result is "Not Detected".

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
18H1261-01[MW-AH-16D], 18H1261-02[DUP 20180824-1], B211180-BLK1

**B-07**

Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B211180-BS1, B211180-BSD1

**Total Polychlorinated biphenyls**
18H1261-01[MW-AH-16D], 18H1261-02[DUP 20180824-1], B211180-BLK1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18H1261

Date Received: 8/24/2018

**Field Sample #: MW-AH-16D** | Sampled: 8/24/2018 11:05

**Sample ID: 18H1261-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.049 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Dichlorobiphenyls | 0.14 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Trichlorobiphenyls | 0.051 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Tetrachlorobiphenyls | 0.0062 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | B-05 | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |
| Total Polychlorinated biphenyls | 0.25 | | µg/L | 1 | B-07, B | EPA 680 Modified | 8/29/18 | 9/4/18 16:48 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.4 | 50-125 | | 9/4/18 16:48 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18H1261

Date Received: 8/24/2018

**Field Sample #: DUP 20180824-1**
Sampled: 8/24/2018 07:00

**Sample ID: 18H1261-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.059 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Dichlorobiphenyls | 0.17 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Trichlorobiphenyls | 0.054 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Tetrachlorobiphenyls | 0.0092 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | B-05 | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |
| Total Polychlorinated biphenyls | 0.29 | | µg/L | 1 | B-07, B | EPA 680 Modified | 8/29/18 | 9/4/18 17:26 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 93.8 | 50-125 | | 9/4/18 17:26 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18H1261-01 [MW-AH-16D] | B211180 | 1000 | 1.00 | 08/29/18 |
| 18H1261-02 [DUP 20180824-1] | B211180 | 1000 | 1.00 | 08/29/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B211180 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B211180-BLK1)** | | | | Prepared: 08/29/18 Analyzed: 09/04/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | 0.0053 | 0.0050 | µg/L | | | | | | | B-05 |
| Total Polychlorinated biphenyls | 0.0053 | | µg/L | | | | | | | B-07 |
| Surrogate: Tetrachloro-m-xylene | *0.184* | | µg/L | 0.200 | | 91.9 | 50-125 | | | |
| **LCS (B211180-BS1)** | | | | Prepared: 08/29/18 Analyzed: 09/04/18 | | | | | | |
| Monochlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 89.8 | 40-140 | | | |
| Dichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 94.5 | 40-140 | | | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 87.9 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 88.3 | 40-140 | | | |
| Pentachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 94.3 | 40-140 | | | |
| Hexachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 94.2 | 40-140 | | | |
| Heptachlorobiphenyls | 0.53 | 0.0030 | µg/L | 0.600 | | 88.5 | 40-140 | | | |
| Octachlorobiphenyls | 0.55 | 0.0030 | µg/L | 0.600 | | 91.3 | 40-140 | | | |
| Nonachlorobiphenyls | 0.98 | 0.0050 | µg/L | 1.00 | | 98.4 | 40-140 | | | |
| Decachlorobiphenyl | 1.0 | 0.0050 | µg/L | 1.00 | | 101 | 40-140 | | | B-07, B |
| Surrogate: Tetrachloro-m-xylene | *0.197* | | µg/L | 0.200 | | 98.4 | 50-125 | | | |
| **LCS Dup (B211180-BSD1)** | | | | Prepared: 08/29/18 Analyzed: 09/04/18 | | | | | | |
| Monochlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 88.0 | 40-140 | 2.04 | 50 | |
| Dichlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 99.8 | 40-140 | 5.41 | 50 | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 86.9 | 40-140 | 1.14 | 50 | |
| Tetrachlorobiphenyls | 0.36 | 0.0020 | µg/L | 0.400 | | 90.5 | 40-140 | 2.44 | 50 | |
| Pentachlorobiphenyls | 0.40 | 0.0020 | µg/L | 0.400 | | 101 | 40-140 | 7.07 | 50 | |
| Hexachlorobiphenyls | 0.36 | 0.0020 | µg/L | 0.400 | | 89.8 | 40-140 | 4.77 | 50 | |
| Heptachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 84.6 | 40-140 | 4.54 | 50 | |
| Octachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 85.8 | 40-140 | 6.22 | 50 | |
| Nonachlorobiphenyls | 0.93 | 0.0050 | µg/L | 1.00 | | 92.6 | 40-140 | 6.04 | 50 | |
| Decachlorobiphenyl | 0.96 | 0.0050 | µg/L | 1.00 | | 95.6 | 40-140 | 5.94 | 50 | B-07, B |
| Surrogate: Tetrachloro-m-xylene | *0.197* | | µg/L | 0.200 | | 98.3 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| B | Analyte is found in the associated laboratory blank as well as in the sample. |
| B-05 | Data is not affected by elevated level in laboratory blank since sample(s) result is "Not Detected". |
| B-07 | Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2018 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

18H1261

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028



**Requested Turnaround Time**
7-Day ☐ 10-Day ☐
Due Date: STD

**Rush-Approval Required**
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

**Data Delivery**
Format: PDF ☑ EXCEL ☑
Other:
CLP Like Data Pkg Required: ☐
Email To:
Fax To #:

Company Name: AECOM CORP
Address: 500 ENTERPRISE DR, ROCKY HILL, CT
Phone: 860-571-8928
Project Name: GREENWICH HIGH SCHOOL
Project Location: GREENWICH, CT
Project Number: 60432356
Project Manager: MATT ROOD
Con-Test Quote Name/Number: —
Invoice Recipient: —
Sampled By: JOHN CRESPO

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | Composite | Grab | [1] Matrix Code | Conc Code | PCB Homologs - 8270 | # of Containers | [2] Preservation Code | [3] Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | MW-AH-16D | 8/24/18 | 11:05 | | ✓ | GW | U | X | | | |
| 02 | DUP 20180824-1 | 8/24/18 | 7:00 | | ✓ | GW | U | X | | | |

Dissolved Metals Samples: ○ Field Filtered ○ Lab to Filter

Orthophosphate Samples: ○ Field Filtered ○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments:
- CRITERIA GWPC/SWPC MUST BE MET FOR REPORTING LIMITS
- MUNICIPALITY - DON'T INCLUDE TAX
- CT RCP CERT. REQUIRED

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| John Crespo | 8/24/18 |
| Received by: (signature) | Date/Time: 8/24/18 1330 |
| Relinquished by: (signature) | Date/Time: 8/24/18 1555 |
| Received by: (signature) | Date/Time: 8/24/18 1725 |
| Relinquished by: (signature) | Date/Time: 8/24/18 1900 |
| Received by: (signature) 3.2 | Date/Time: 8/24/18 1900 |

**Detection Limit Requirements**
MA
CT
Other:

**Special Requirements**
☐ MA MCP Required
MCP Certification Form Required
☑ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY www.contestlabs.com
NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☑ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** Acom

**Received By** RAP Date 8/27/18 Time 1900

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

By Gun # 572 Actual Temp - 3.2

Were samples within Temperature? 2-6°C T By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 4 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

PHOENIX
Environmental Laboratories, Inc.

**Wednesday, August 29, 2018**

**Attn: Mr. Matt Rood**
**AECOM**
**500 Enterprise Dr Suite 1A**
**Rocky Hill CT 06067**

**Project ID: 60432356**
**Sample ID#s: CB18331 - CB18332**

**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**

**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 29, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 08/24/18 | 11:05 |
| Location Code: | AECOM-CT | Received by: | LB | 08/24/18 | 16:01 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB18331
Phoenix ID: CB18331

Project ID: 60432356
Client ID: MW-AH-16D

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Barium | 0.120 | 0.002 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 08/28/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 08/28/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Zinc | 0.026 | 0.004 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 08/27/18 | I/II | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 08/24/18 | P/R | SW3520C |
| Total Metals Digestion | Completed | | | | 08/24/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 08/27/18 | AG | |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |

Project ID: 60432356
Client ID: MW-AH-16D

Phoenix I.D.: CB18331

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 63 | | % | 1 | 08/27/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 71 | | % | 1 | 08/27/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 69 | | % | 1 | 08/27/18 | 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:

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 29, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# Analysis Report

August 29, 2018

FOR: Attn: Mr. Matt Rood
AECOM
500 Enterprise Dr Suite 1A
Rocky Hill CT 06067

| Sample Information | | Custody Information | | Date | Time |
|---|---|---|---|---|---|
| Matrix: | GROUND WATER | Collected by: | | 08/24/18 | 7:00 |
| Location Code: | AECOM-CT | Received by: | LB | 08/24/18 | 16:01 |
| Rush Request: | Standard | Analyzed by: | see "By" below | | |
| P.O.#: | NEED POS | | | | |

## Laboratory Data

SDG ID: GCB18331
Phoenix ID: CB18332

Project ID: 60432356
Client ID: DUP20180824-2

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Silver | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Arsenic | < 0.004 | 0.004 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Barium | 0.121 | 0.002 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Beryllium | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Cadmium | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Chromium | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Copper | < 0.005 | 0.005 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Mercury | < 0.0002 | 0.0002 | mg/L | 1 | 08/28/18 | RS | SW7470A |
| Nickel | < 0.001 | 0.001 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Lead | < 0.002 | 0.002 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Antimony | < 0.005 | 0.005 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Selenium | < 0.010 | 0.010 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Thallium | < 0.0005 | 0.0005 | mg/L | 5 | 08/28/18 | CPP | SW6020B |
| Vanadium | < 0.002 | 0.002 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Zinc | 0.025 | 0.004 | mg/L | 1 | 08/25/18 | CPP | SW6010C |
| Mercury Digestion | Completed | | | | 08/27/18 | I/II | SW7470A |
| Semi-Volatile Extraction | Completed | | | | 08/24/18 | P/R | SW3520C |
| Total Metals Digestion | Completed | | | | 08/24/18 | AG | |
| Total Metals Digestion MS | Completed | | | | 08/27/18 | AG | |

## Semivolatiles by SIM, PAH

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 2-Methylnaphthalene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Acenaphthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Acenaphthylene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Anthracene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benz(a)anthracene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benzo(a)pyrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benzo(b)fluoranthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |

Project ID: 60432356
Client ID: DUP20180824-2

Phoenix I.D.: CB18332

| Parameter | Result | RL/ PQL | Units | Dilution | Date/Time | By | Reference |
|---|---|---|---|---|---|---|---|
| Benzo(ghi)perylene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Benzo(k)fluoranthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Chrysene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Dibenz(a,h)anthracene | ND | 0.01 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Fluoranthene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Fluorene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Indeno(1,2,3-cd)pyrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Naphthalene | ND | 0.09 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Phenanthrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| Pyrene | ND | 0.05 | ug/L | 1 | 08/27/18 | KCA | SW8270D (SIM) |
| **QA/QC Surrogates** | | | | | | | |
| % 2-Fluorobiphenyl | 65 | | % | 1 | 08/27/18 | KCA | 30 - 130 % |
| % Nitrobenzene-d5 | 70 | | % | 1 | 08/27/18 | KCA | 30 - 130 % |
| % Terphenyl-d14 | 68 | | % | 1 | 08/27/18 | 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:

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 29, 2018**
**Reviewed and Released by: Rashmi Makol, Project Manager**

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

# QA/QC Report

August 29, 2018

## QA/QC Data

SDG I.D.: GCB18331

| 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 444803 (mg/L), QC Sample No: CB17435 (CB18331, CB18332) | | | | | | | | | | | | | |
| **ICP Metals - Aqueous** | | | | | | | | | | | | | |
| Antimony | BRL | 0.005 | <0.005 | <0.005 | NC | 102 | | | 101 | | | 75 - 125 | 20 |
| Arsenic | BRL | 0.004 | <0.004 | <0.004 | NC | 98.4 | | | 98.4 | | | 75 - 125 | 20 |
| Barium | BRL | 0.002 | 0.010 | 0.010 | 0 | 100 | | | 101 | | | 75 - 125 | 20 |
| Beryllium | BRL | 0.001 | <0.001 | <0.001 | NC | 99.7 | | | 101 | | | 75 - 125 | 20 |
| Cadmium | BRL | 0.001 | <0.001 | <0.001 | NC | 96.1 | | | 95.3 | | | 75 - 125 | 20 |
| Chromium | BRL | 0.001 | <0.001 | <0.001 | NC | 94.6 | | | 94.4 | | | 75 - 125 | 20 |
| Copper | BRL | 0.005 | <0.005 | <0.005 | NC | 97.6 | | | 98.9 | | | 75 - 125 | 20 |
| Lead | BRL | 0.002 | <0.002 | <0.002 | NC | 96.8 | | | 96.2 | | | 75 - 125 | 20 |
| Nickel | BRL | 0.001 | <0.001 | <0.001 | NC | 95.7 | | | 95.0 | | | 75 - 125 | 20 |
| Selenium | BRL | 0.010 | <0.010 | <0.010 | NC | 97.8 | | | 95.5 | | | 75 - 125 | 20 |
| Silver | BRL | 0.001 | <0.001 | <0.001 | NC | 93.4 | | | 94.3 | | | 75 - 125 | 20 |
| Vanadium | BRL | 0.002 | <0.002 | <0.002 | NC | 94.7 | | | 96.0 | | | 75 - 125 | 20 |
| Zinc | BRL | 0.004 | <0.004 | <0.004 | NC | 96.4 | | | 96.2 | | | 75 - 125 | 20 |
| QA/QC Batch 444983 (mg/L), QC Sample No: CB18067 5X (CB18331, CB18332) | | | | | | | | | | | | | |
| **ICP MS Metals - Aqueous** | | | | | | | | | | | | | |
| Thallium | BRL | 0.0005 | <0.0005 | <0.0005 | NC | 99.8 | | | 98.4 | | | 75 - 125 | 20 |
| QA/QC Batch 444920 (mg/L), QC Sample No: CB18302 (CB18331, CB18332) | | | | | | | | | | | | | |
| Mercury - Water | BRL | 0.0002 | <0.0002 | <0.0002 | NC | 85.5 | | | 83.7 | | | 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%.

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 29, 2018

## QA/QC Data

SDG I.D.: GCB18331

| Parameter | Blank | Blk RL | LCS % | LCSD % | LCS RPD | MS % | MSD % | MS RPD | % Rec Limits | % RPD Limits | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| QA/QC Batch 444807 (ug/L), QC Sample No: CB18757 (CB18331, CB18332) | | | | | | | | | | | |
| **Semivolatiles by SIM, PAH - Ground Water** | | | | | | | | | | | |
| 2-Methylnaphthalene | ND | 0.05 | 62 | 56 | 10.2 | | | | 30 - 130 | 20 | |
| Acenaphthene | ND | 0.05 | 66 | 69 | 4.4 | | | | 30 - 130 | 20 | |
| Acenaphthylene | ND | 0.04 | 26 | 68 | 89.4 | | | | 30 - 130 | 20 | l,r |
| Anthracene | ND | 0.02 | 78 | 80 | 2.5 | | | | 30 - 130 | 20 | |
| Benz(a)anthracene | ND | 0.02 | 83 | 82 | 1.2 | | | | 30 - 130 | 20 | |
| Benzo(a)pyrene | ND | 0.02 | 74 | 84 | 12.7 | | | | 30 - 130 | 20 | |
| Benzo(b)fluoranthene | ND | 0.02 | 85 | 80 | 6.1 | | | | 30 - 130 | 20 | |
| Benzo(ghi)perylene | ND | 0.02 | 75 | 74 | 1.3 | | | | 30 - 130 | 20 | |
| Benzo(k)fluoranthene | ND | 0.02 | 85 | 83 | 2.4 | | | | 30 - 130 | 20 | |
| Chrysene | ND | 0.02 | 83 | 81 | 2.4 | | | | 30 - 130 | 20 | |
| Dibenz(a,h)anthracene | ND | 0.01 | 94 | 98 | 4.2 | | | | 30 - 130 | 20 | |
| Fluoranthene | ND | 0.04 | 79 | 79 | 0.0 | | | | 30 - 130 | 20 | |
| Fluorene | ND | 0.05 | 77 | 75 | 2.6 | | | | 30 - 130 | 20 | |
| Indeno(1,2,3-cd)pyrene | ND | 0.02 | 82 | 81 | 1.2 | | | | 30 - 130 | 20 | |
| Naphthalene | ND | 0.05 | 58 | 52 | 10.9 | | | | 30 - 130 | 20 | |
| Phenanthrene | ND | 0.05 | 75 | 74 | 1.3 | | | | 30 - 130 | 20 | |
| Pyrene | ND | 0.02 | 77 | 82 | 6.3 | | | | 30 - 130 | 20 | |
| % 2-Fluorobiphenyl | 62 | % | 61 | 61 | 0.0 | | | | 30 - 130 | 20 | |
| % Nitrobenzene-d5 | 69 | % | 47 | 47 | 0.0 | | | | 30 - 130 | 20 | |
| % Terphenyl-d14 | 72 | % | 73 | 73 | 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%)

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
August 29, 2018

Wednesday, August 29, 2018

Criteria: CT: GWP, SWP

State: CT

# Sample Criteria Exceedances Report

## GCB18331 - AECOM-CT

| 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:*** AECOM

***Project Location:*** 60432356 ***Project Number:***

***Laboratory Sample ID(s):*** CB18331, CB18332 ***Sampling Date(s):*** 8/24/2018

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

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

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

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

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

**Printed Name:** Rashmi Makol **Date:** Wednesday, August 29, 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 29, 2018

SDG I.D.: GCB18331

## *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.

## *Mercury Narration*

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

### Instrument:

**MERLIN 08/28/18 08:04** Rick Schweitzer, Chemist 08/28/18

CB18331, CB18332

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 444920 (CB18302)**

CB18331, CB18332

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 08/24/18 09:08** Cindy Pearce, Chemist 08/24/18

CB18331, CB18332

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 444803 (CB17435)**

CB18331, CB18332

PHOENIX

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

ACCREDITED IN ACCORDANCE WITH nelac NY # 11301

# Certification Report

August 29, 2018

SDG I.D.: GCB18331

## *ICP Metals Narration*

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 08/28/18 11:45** Cindy Pearce, Chemist 08/28/18

CB18331, CB18332

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 444983 (CB18067)**

CB18331, CB18332

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

## *SVOASIM Narration*

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

**QC Batch 444807 (Samples: CB18331, CB18332): -----**

**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. (Acenaphthylene)**

**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. (Acenaphthylene)**

### Instrument:

**CHEM27 08/27/18-1** Harry Mullin, Chemist 08/27/18

CB18331, CB18332

For 8270 BN list, benzidine peak tailing was evaluated in the DFTPP tune and was found to be in control.

Initial Calibration Verification (CHEM27/bnSIM_0823):
90% of target compounds met criteria.
The following compounds had %RSDs >20%: % Nitrobenzene-d5 22% (20%), Acenaphthene 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 (CHEM27/0827_03-bnSIM_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.

**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 29, 2018

SDG I.D.: GCB18331

## *SVOASIM Narration*

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

### QC (Batch Specific):

**Batch 444807 (CB18757)**

CB18331, CB18332

All LCS recoveries were within 30 - 130 with the following exceptions: Acenaphthylene(26%)
All LCSD recoveries were within 30 - 130 with the following exceptions: None.
All LCS/LCSD RPDs were less than 20% with the following exceptions: Acenaphthylene(89.4%)
Additional 8270 criteria:20% of compounds can be outside of acceptance criteria as long as recovery is at least 10%. (Acid surrogates acceptance range for aqueous samples: 15-110%, for soils 30-130%)

## *Temperature Narration*

The samples were received at 3.1C 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 of

# 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:

Customer: AECOM CORP.
Address: 500 ENTERPRISE DR. ROCKY HILL, CT.

Project: 60432356.
Report to: MATT ROOD
Invoice to: MATT ROOD

Project P.O:

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

Sampler's Signature: John Wenger Date: 8/24/18

**Client Sample - Information - Identification**

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

Analysis Request

| PHOENIX USE ONLY SAMPLE # | Customer Sample Identification | Sample Matrix | Date Sampled | Time Sampled | PAH's | CT RCP METALS | 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 18331 | MW-AH-16D | GW | 8/24/18 | 11:05 | X | X | | | | | | X | | | X | | | |
| 18332 | DUP20180824-2 | GW | 8/24/18 | 7:00 | X | X | | | | | | X | | | X | | | |

| Relinquished by: | Accepted by: | Date: | Time: |
|---|---|---|---|
| J. Wenger | [illegible] | 8/24 | 1:04 |
| [illegible] | TFOMM | 8/24/18 | 1600 |

**Comments, Special Requirements or Regulations:**
- CT RCP CERTIFICATION REQUIRED
- GWPC/SWPC CRITERIA MUST BE MET FOR REPORTING LIMITS
- MUNICIPALITY - DON'T INCLUDE TAX ON INVOICE

**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

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

**State where samples were collected:** CT

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 10, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0800.2,
Laboratory Work Order Number: 18I1338

Enclosed are results of analyses for samples received by the laboratory on September 28, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18I1338-01 5

18I1338-02 6

18I1338-03 7

18I1338-04 8

18I1338-05 9

18I1338-06 10

18I1338-07 11

18I1338-08 12

18I1338-09 13

18I1338-10 14

Sample Preparation Information 15

QC Data 16

PCB Homologues by GC/MS Water 16

B213992 16

B214343 17

Flag/Qualifier Summary 19

Certifications 20

Chain of Custody/Sample Receipt 21

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 10/10/2018

PURCHASE ORDER NUMBER: 104017

PROJECT NUMBER: 60432356.0800.2,

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18I1338

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AJ19-092718-1 | 18I1338-01 | Ground Water | | EPA 680 Modified | |
| MW-AM21-092718-1 | 18I1338-02 | Ground Water | | EPA 680 Modified | |
| MW-Y26-092818-1 | 18I1338-03 | Ground Water | | EPA 680 Modified | |
| MW-R20-092818-1 | 18I1338-04 | Ground Water | | EPA 680 Modified | |
| MW-R20-092818-2 | 18I1338-05 | Ground Water | | EPA 680 Modified | |
| MW-L25-092818-1 | 18I1338-06 | Ground Water | | EPA 680 Modified | |
| MW-F35-092818-1 | 18I1338-07 | Ground Water | | EPA 680 Modified | |
| MW-28-092818-1 | 18I1338-08 | Ground Water | | EPA 680 Modified | |
| MW-T23-092818-1 | 18I1338-09 | Ground Water | | EPA 680 Modified | |
| MW-35-092818-1 | 18I1338-10 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**H-01**

Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time.

**Analyte & Samples(s) Qualified:**

18I1338-09RE1[MW-T23-092818-1]

**S-10**

Sample was re-extracted outside of holding time since surrogate standard recovery was outside of control limits. Data from analysis performed outside of holding time is also reported since surrogate recovery is acceptable.

**Analyte & Samples(s) Qualified:**

**Tetrachloro-m-xylene**
18I1338-09[MW-T23-092818-1]

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:**

**Monochlorobiphenyls**
18I1338-01[MW-AJ19-092718-1], 18I1338-02[MW-AM21-092718-1], 18I1338-03[MW-Y26-092818-1], 18I1338-04[MW-R20-092818-1], 18I1338-05[MW-R20-092818-2], 18I1338-06[MW-L25-092818-1], 18I1338-07[MW-F35-092818-1], 18I1338-08[MW-28-092818-1], 18I1338-09[MW-T23-092818-1], 18I1338-10[MW-35-092818-1], B213992-BLK1, B213992-BS1, B213992-BSD1, B213992-MS1, B213992-MS2, B213992-MSD1, B213992-MSD2, S028143-CCV1, S028143-CCV2, S028145-CCV1, S028145-CCV2

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-AJ19-092718-1**
Sampled: 9/27/2018 15:40

**Sample ID: 18I1338-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00091 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Dichlorobiphenyls | ND | 0.00091 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Trichlorobiphenyls | 0.0087 | 0.00091 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Tetrachlorobiphenyls | 0.019 | 0.0018 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Pentachlorobiphenyls | 0.0039 | 0.0018 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Hexachlorobiphenyls | ND | 0.0018 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Heptachlorobiphenyls | ND | 0.0027 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Octachlorobiphenyls | ND | 0.0027 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Nonachlorobiphenyls | ND | 0.0045 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Decachlorobiphenyl | ND | 0.0045 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |
| Total Polychlorinated biphenyls | 0.031 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 14:58 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 65.2 | 50-125 | | 10/6/18 14:58 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-AM21-092718-1**
Sampled: 9/27/2018 16:35

**Sample ID: 18I1338-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Tetrachlorobiphenyls | 0.029 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Pentachlorobiphenyls | 0.012 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |
| Total Polychlorinated biphenyls | 0.041 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 15:36 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 51.5 | 50-125 | | 10/6/18 15:36 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-Y26-092818-1**
Sampled: 9/28/2018 07:45

**Sample ID: 18I1338-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00096 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Dichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Trichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:13 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 60.6 | 50-125 | | 10/6/18 16:13 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-R20-092818-1**
Sampled: 9/28/2018 08:05

**Sample ID: 18I1338-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00095 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Dichlorobiphenyls | ND | 0.00095 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Trichlorobiphenyls | ND | 0.00095 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 16:50 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 51.9 | 50-125 | | 10/6/18 16:50 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-R20-092818-2**
Sampled: 9/28/2018 08:10

**Sample ID: 18I1338-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 17:28 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 57.4 | 50-125 | | 10/6/18 17:28 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-L25-092818-1**
Sampled: 9/28/2018 09:45

**Sample ID: 18I1338-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00095 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Dichlorobiphenyls | ND | 0.00095 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Trichlorobiphenyls | ND | 0.00095 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:05 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 56.7 | 50-125 | | 10/6/18 18:05 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-F35-092818-1**
Sampled: 9/28/2018 09:50

**Sample ID: 18I1338-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0011 | 0.00091 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Dichlorobiphenyls | 0.0056 | 0.00091 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Trichlorobiphenyls | 0.0062 | 0.00091 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Tetrachlorobiphenyls | ND | 0.0018 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Pentachlorobiphenyls | ND | 0.0018 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Hexachlorobiphenyls | ND | 0.0018 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Heptachlorobiphenyls | ND | 0.0027 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Octachlorobiphenyls | ND | 0.0027 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Nonachlorobiphenyls | ND | 0.0045 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Decachlorobiphenyl | ND | 0.0045 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |
| Total Polychlorinated biphenyls | 0.013 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 18:43 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 52.5 | 50-125 | | 10/6/18 18:43 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-28-092818-1**
Sampled: 9/28/2018 10:50

**Sample ID: 18I1338-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00096 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Dichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Trichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:20 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 57.5 | 50-125 | | 10/6/18 19:20 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-T23-092818-1** | Sampled: 9/28/2018 08:50

**Sample ID: 18I1338-09**

Sample Matrix: Ground Water

Sample Flags: H-01

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0011 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Dichlorobiphenyls | ND | 0.0011 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Trichlorobiphenyls | ND | 0.0011 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Tetrachlorobiphenyls | ND | 0.0022 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Pentachlorobiphenyls | ND | 0.0022 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Hexachlorobiphenyls | ND | 0.0022 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Heptachlorobiphenyls | ND | 0.0034 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Octachlorobiphenyls | ND | 0.0034 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Nonachlorobiphenyls | ND | 0.0056 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Decachlorobiphenyl | ND | 0.0056 | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/9/18 | 10/10/18 11:54 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 19:57 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 63.3 | 50-125 | | 10/10/18 11:54 |
| **Tetrachloro-m-xylene** | **49.6** * | 50-125 | S-10 | 10/6/18 19:57 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1338

Date Received: 9/28/2018

**Field Sample #: MW-35-092818-1**
Sampled: 9/28/2018 11:05

**Sample ID: 18I1338-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | V-05 | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 10/4/18 | 10/6/18 20:35 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 58.9 | 50-125 | | 10/6/18 20:35 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18I1338-01 [MW-AJ19-092718-1] | B213992 | 990 | 0.900 | 10/04/18 |
| 18I1338-02 [MW-AM21-092718-1] | B213992 | 1020 | 1.00 | 10/04/18 |
| 18I1338-03 [MW-Y26-092818-1] | B213992 | 1040 | 1.00 | 10/04/18 |
| 18I1338-04 [MW-R20-092818-1] | B213992 | 1050 | 1.00 | 10/04/18 |
| 18I1338-05 [MW-R20-092818-2] | B213992 | 1000 | 1.00 | 10/04/18 |
| 18I1338-06 [MW-L25-092818-1] | B213992 | 1050 | 1.00 | 10/04/18 |
| 18I1338-07 [MW-F35-092818-1] | B213992 | 990 | 0.900 | 10/04/18 |
| 18I1338-08 [MW-28-092818-1] | B213992 | 1040 | 1.00 | 10/04/18 |
| 18I1338-09 [MW-T23-092818-1] | B213992 | 1000 | 1.00 | 10/04/18 |
| 18I1338-10 [MW-35-092818-1] | B213992 | 1020 | 1.00 | 10/04/18 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18I1338-09RE1 [MW-T23-092818-1] | B214343 | 890 | 1.00 | 10/09/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B213992 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B213992-BLK1)** | | | | Prepared: 10/04/18 Analyzed: 10/06/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | V-05 |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.136* | | µg/L | 0.200 | | 67.9 | 50-125 | | | |
| **LCS (B213992-BS1)** | | | | Prepared: 10/04/18 Analyzed: 10/06/18 | | | | | | |
| Monochlorobiphenyls | 0.11 | 0.0010 | µg/L | 0.200 | | 52.6 | 40-140 | | | V-05 |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 77.1 | 40-140 | | | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 74.5 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 76.3 | 40-140 | | | |
| Pentachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 87.9 | 40-140 | | | |
| Hexachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 77.3 | 40-140 | | | |
| Heptachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 76.0 | 40-140 | | | |
| Octachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 78.2 | 40-140 | | | |
| Nonachlorobiphenyls | 0.84 | 0.0050 | µg/L | 1.00 | | 84.2 | 40-140 | | | |
| Decachlorobiphenyl | 0.83 | 0.0050 | µg/L | 1.00 | | 82.7 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.115* | | µg/L | 0.200 | | 57.3 | 50-125 | | | |
| **LCS Dup (B213992-BSD1)** | | | | Prepared: 10/04/18 Analyzed: 10/06/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 68.4 | 40-140 | 26.2 | 50 | V-05 |
| Dichlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 97.5 | 40-140 | 23.4 | 50 | |
| Trichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 93.3 | 40-140 | 22.4 | 50 | |
| Tetrachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 95.0 | 40-140 | 21.8 | 50 | |
| Pentachlorobiphenyls | 0.42 | 0.0020 | µg/L | 0.400 | | 105 | 40-140 | 17.6 | 50 | |
| Hexachlorobiphenyls | 0.39 | 0.0020 | µg/L | 0.400 | | 98.4 | 40-140 | 24.0 | 50 | |
| Heptachlorobiphenyls | 0.57 | 0.0030 | µg/L | 0.600 | | 95.6 | 40-140 | 22.8 | 50 | |
| Octachlorobiphenyls | 0.59 | 0.0030 | µg/L | 0.600 | | 97.8 | 40-140 | 22.2 | 50 | |
| Nonachlorobiphenyls | 1.0 | 0.0050 | µg/L | 1.00 | | 103 | 40-140 | 20.6 | 50 | |
| Decachlorobiphenyl | 1.0 | 0.0050 | µg/L | 1.00 | | 103 | 40-140 | 21.5 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.147* | | µg/L | 0.200 | | 73.6 | 50-125 | | | |
| **Matrix Spike (B213992-MS1)** | | **Source: 18I1338-06** | | Prepared: 10/04/18 Analyzed: 10/06/18 | | | | | | |
| Monochlorobiphenyls | 0.115 | 0.00096 | µg/L | 0.192 | ND | 59.7 | 0-200 | | | V-05 |
| Dichlorobiphenyls | 0.164 | 0.00096 | µg/L | 0.192 | ND | 85.0 | 0-200 | | | |
| Trichlorobiphenyls | 0.156 | 0.00096 | µg/L | 0.192 | ND | 81.2 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.314 | 0.0019 | µg/L | 0.385 | ND | 81.5 | 0-200 | | | |
| Pentachlorobiphenyls | 0.365 | 0.0019 | µg/L | 0.385 | ND | 94.8 | 0-200 | | | |
| Hexachlorobiphenyls | 0.315 | 0.0019 | µg/L | 0.385 | ND | 81.8 | 0-200 | | | |
| Heptachlorobiphenyls | 0.464 | 0.0029 | µg/L | 0.577 | ND | 80.3 | 0-200 | | | |
| Octachlorobiphenyls | 0.484 | 0.0029 | µg/L | 0.577 | ND | 83.9 | 0-200 | | | |
| Nonachlorobiphenyls | 0.863 | 0.0048 | µg/L | 0.962 | ND | 89.7 | 0-200 | | | |
| Decachlorobiphenyl | 0.874 | 0.0048 | µg/L | 0.962 | ND | 90.9 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.124* | | µg/L | 0.192 | | 64.4 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B213992 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike (B213992-MS2)** | | **Source: 18I1338-08** | | Prepared: 10/04/18 Analyzed: 10/07/18 | | | | | | |
| Monochlorobiphenyls | 0.102 | 0.00095 | µg/L | 0.190 | ND | 53.7 | 0-200 | | | V-05 |
| Dichlorobiphenyls | 0.144 | 0.00095 | µg/L | 0.190 | ND | 75.7 | 0-200 | | | |
| Trichlorobiphenyls | 0.140 | 0.00095 | µg/L | 0.190 | ND | 73.5 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.285 | 0.0019 | µg/L | 0.381 | ND | 74.8 | 0-200 | | | |
| Pentachlorobiphenyls | 0.337 | 0.0019 | µg/L | 0.381 | ND | 88.5 | 0-200 | | | |
| Hexachlorobiphenyls | 0.297 | 0.0019 | µg/L | 0.381 | ND | 78.0 | 0-200 | | | |
| Heptachlorobiphenyls | 0.436 | 0.0029 | µg/L | 0.571 | ND | 76.3 | 0-200 | | | |
| Octachlorobiphenyls | 0.458 | 0.0029 | µg/L | 0.571 | ND | 80.2 | 0-200 | | | |
| Nonachlorobiphenyls | 0.830 | 0.0048 | µg/L | 0.952 | ND | 87.2 | 0-200 | | | |
| Decachlorobiphenyl | 0.839 | 0.0048 | µg/L | 0.952 | ND | 88.1 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.111* | | µg/L | 0.190 | | 58.5 | 50-125 | | | |
| **Matrix Spike Dup (B213992-MSD1)** | | **Source: 18I1338-06** | | Prepared: 10/04/18 Analyzed: 10/07/18 | | | | | | |
| Monochlorobiphenyls | 0.113 | 0.00095 | µg/L | 0.190 | ND | 59.1 | 0-200 | 2.03 | | V-05 |
| Dichlorobiphenyls | 0.146 | 0.00095 | µg/L | 0.190 | ND | 76.7 | 0-200 | 11.3 | | |
| Trichlorobiphenyls | 0.132 | 0.00095 | µg/L | 0.190 | ND | 69.4 | 0-200 | 16.6 | | |
| Tetrachlorobiphenyls | 0.271 | 0.0019 | µg/L | 0.381 | ND | 71.1 | 0-200 | 14.6 | | |
| Pentachlorobiphenyls | 0.308 | 0.0019 | µg/L | 0.381 | ND | 80.8 | 0-200 | 16.9 | | |
| Hexachlorobiphenyls | 0.262 | 0.0019 | µg/L | 0.381 | ND | 68.8 | 0-200 | 18.3 | | |
| Heptachlorobiphenyls | 0.385 | 0.0029 | µg/L | 0.571 | ND | 67.4 | 0-200 | 18.5 | | |
| Octachlorobiphenyls | 0.400 | 0.0029 | µg/L | 0.571 | ND | 70.0 | 0-200 | 19.0 | | |
| Nonachlorobiphenyls | 0.712 | 0.0048 | µg/L | 0.952 | ND | 74.8 | 0-200 | 19.1 | | |
| Decachlorobiphenyl | 0.714 | 0.0048 | µg/L | 0.952 | ND | 75.0 | 0-200 | 20.1 | | |
| Surrogate: Tetrachloro-m-xylene | *0.115* | | µg/L | 0.190 | | 60.1 | 50-125 | | | |
| **Matrix Spike Dup (B213992-MSD2)** | | **Source: 18I1338-08** | | Prepared: 10/04/18 Analyzed: 10/07/18 | | | | | | |
| Monochlorobiphenyls | 0.102 | 0.00097 | µg/L | 0.194 | ND | 52.5 | 0-200 | 0.391 | | V-05 |
| Dichlorobiphenyls | 0.141 | 0.00097 | µg/L | 0.194 | ND | 72.9 | 0-200 | 1.96 | | |
| Trichlorobiphenyls | 0.135 | 0.00097 | µg/L | 0.194 | ND | 69.7 | 0-200 | 3.35 | | |
| Tetrachlorobiphenyls | 0.278 | 0.0019 | µg/L | 0.388 | ND | 71.7 | 0-200 | 2.29 | | |
| Pentachlorobiphenyls | 0.330 | 0.0019 | µg/L | 0.388 | ND | 85.0 | 0-200 | 2.12 | | |
| Hexachlorobiphenyls | 0.296 | 0.0019 | µg/L | 0.388 | ND | 76.3 | 0-200 | 0.356 | | |
| Heptachlorobiphenyls | 0.431 | 0.0029 | µg/L | 0.583 | ND | 74.0 | 0-200 | 1.13 | | |
| Octachlorobiphenyls | 0.450 | 0.0029 | µg/L | 0.583 | ND | 77.3 | 0-200 | 1.73 | | |
| Nonachlorobiphenyls | 0.810 | 0.0049 | µg/L | 0.971 | ND | 83.5 | 0-200 | 2.40 | | |
| Decachlorobiphenyl | 0.808 | 0.0049 | µg/L | 0.971 | ND | 83.3 | 0-200 | 3.74 | | |
| Surrogate: Tetrachloro-m-xylene | *0.109* | | µg/L | 0.194 | | 56.4 | 50-125 | | | |
| **Batch B214343 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B214343-BLK1)** | | | | Prepared: 10/09/18 Analyzed: 10/10/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B214343 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B214343-BLK1)** | | | | Prepared: 10/09/18 Analyzed: 10/10/18 | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.149* | | µg/L | 0.200 | | 74.5 | 50-125 | | | |
| **LCS (B214343-BS1)** | | | | Prepared: 10/09/18 Analyzed: 10/10/18 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 66.1 | 40-140 | | | |
| Dichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 82.7 | 40-140 | | | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 77.4 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 78.8 | 40-140 | | | |
| Pentachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 88.4 | 40-140 | | | |
| Hexachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 84.0 | 40-140 | | | |
| Heptachlorobiphenyls | 0.49 | 0.0030 | µg/L | 0.600 | | 82.0 | 40-140 | | | |
| Octachlorobiphenyls | 0.49 | 0.0030 | µg/L | 0.600 | | 82.0 | 40-140 | | | |
| Nonachlorobiphenyls | 0.85 | 0.0050 | µg/L | 1.00 | | 84.7 | 40-140 | | | |
| Decachlorobiphenyl | 0.82 | 0.0050 | µg/L | 1.00 | | 81.8 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.136* | | µg/L | 0.200 | | 67.9 | 50-125 | | | |
| **LCS Dup (B214343-BSD1)** | | | | Prepared: 10/09/18 Analyzed: 10/10/18 | | | | | | |
| Monochlorobiphenyls | 0.12 | 0.0010 | µg/L | 0.200 | | 59.8 | 40-140 | 10.0 | 50 | |
| Dichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 75.6 | 40-140 | 9.06 | 50 | |
| Trichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 71.9 | 40-140 | 7.27 | 50 | |
| Tetrachlorobiphenyls | 0.29 | 0.0020 | µg/L | 0.400 | | 73.6 | 40-140 | 6.76 | 50 | |
| Pentachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.4 | 40-140 | 5.77 | 50 | |
| Hexachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 79.2 | 40-140 | 5.89 | 50 | |
| Heptachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 77.3 | 40-140 | 5.98 | 50 | |
| Octachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 77.6 | 40-140 | 5.46 | 50 | |
| Nonachlorobiphenyls | 0.81 | 0.0050 | µg/L | 1.00 | | 81.0 | 40-140 | 4.45 | 50 | |
| Decachlorobiphenyl | 0.78 | 0.0050 | µg/L | 1.00 | | 78.4 | 40-140 | 4.34 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.123* | | µg/L | 0.200 | | 61.5 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| H-01 | Recommended sample holding time was exceeded, but analysis was performed before 2X the allowable holding time. |
| S-10 | Sample was re-extracted outside of holding time since surrogate standard recovery was outside of control limits. Data from analysis performed outside of holding time is also reported since surrogate recovery is acceptable. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

18I1338

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

P 1 of 1

Company Name: AECOM
Address: 500 Enterprise Drive, Ste 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / E. Albrecht

Telephone: 1-860-263-5800
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: Matthew.Rood@aecom.com; Neil.Flahive@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for bilm[illegible]poses)
○ yes _____ proposal date

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | | | | | | | | | | # of Containers / ** Preservation / ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 28 | | | | | | | | | | # of Containers |
| | | | | | | | | I | | | | | | | | | | ** Preservation |
| | | | | | | | | A | | | | | | | | | | ***Container Code |
| 1 | MW-AJ19-092718-1 | 9/27/18 | 1540 | | X | GW | U | X | | | | | | | | | | |
| 2 | MW-AM25-092718-1 | 9/27/18 | 1635 | | X | GW | U | X | | | | | | | | | | |
| 3 | MW-Y26-092818-1 | 9/28/18 | 0745 | | X | GW | U | X | | | | | | | | | | |
| 4 | MW-R20-092818-1 | 9/28/18 | 0805 | | X | GW | U | X | | | | | | | | | | |
| 5 | MW-R20-092818-2 | 9/28/18 | 0810 | | X | GW | U | X | | | | | | | | | | |
| 6 | MW-L25-092818-1 | 9/28/18 | 0945 | | X | GW | U | X | | | | | | | | | | |
| 7 | MW-F35-092818-1 | 9/28/18 | 0950 | | X | GW | U | X | | | | | | | | | | |
| 8 | MW-28-092818-1 | 9/28/18 | 1050 | | X | GW | U | X | | | | | | | | | | |
| 9 | MW-T23-092818-1 | 9/28/18 | 0850 | | X | GW | U | X | | | | | | | | | | |
| 10 | MW-35-092818-1 | 9/28/18 | 1105 | | X | GW | U | X | | | | | | | | | | |

Comments:
MW-L25-092818-1 and MW-28-092818-1 are 5.2, 4.5 MS/MSDs for PCBs 680. 9-28-18

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Ice
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| | | |
|---|---|---|
| Relinquished by: (signature) | 9/28/18 | Date/Time: |
| Received by: (signature) | 9/28/18 | Date/Time: 1420 |
| Relinquished by: (signature) | 9/28/18 | Date/Time: 1600 |
| Received by: (signature) | 9/28/18 | Date/Time: 1630 |

Turnaround ††
☐ 7-Day
☐ 10-Day
◉ Other 5-day
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut: CT RSR GWPC, SWPC
Other:

Is your project MCP or RCP ?
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

9/28/18 18:30 9-28-18 18:30 5.2, 4.5



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESD Date 4/28/18 Time 18:30

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 573 Actual Temp - 5.2, 4.5 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? (D) T

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 28 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 4, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0800.2,
Laboratory Work Order Number: 18I1109

Enclosed are results of analyses for samples received by the laboratory on September 25, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18I1109-01 5

18I1109-02 6

18I1109-03 7

18I1109-04 8

18I1109-05 9

Sample Preparation Information 10

QC Data 11

PCB Homologues by GC/MS Water 11

B213579 11

Flag/Qualifier Summary 12

Certifications 13

Chain of Custody/Sample Receipt 14

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 10/4/2018

PURCHASE ORDER NUMBER: 104017

PROJECT NUMBER: 60432356.0800.2,

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18I1109

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AA19-092518-1 | 18I1109-01 | Ground Water | | EPA 680 Modified | |
| MW-P7-092518-1 | 18I1109-02 | Ground Water | | EPA 680 Modified | |
| MW-P11-092518-1 | 18I1109-03 | Ground Water | | EPA 680 Modified | |
| MW-S15-092518-1 | 18I1109-04 | Ground Water | | EPA 680 Modified | |
| MW-S15-092518-2 | 18I1109-05 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B213579-BS1, B213579-BSD1, S027931-CCV2

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
18I1109-01[MW-AA19-092518-1], 18I1109-02[MW-P7-092518-1], 18I1109-03[MW-P11-092518-1], 18I1109-04[MW-S15-092518-1], 18I1109-05[MW-S15-092518-2], B213579-BLK1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1109

Date Received: 9/25/2018

**Field Sample #: MW-AA19-092518-1**
Sampled: 9/25/2018 08:15

**Sample ID: 18I1109-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0011 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |
| Total Polychlorinated biphenyls | 0.0011 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:07 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 66.1 | 50-125 | | 10/4/18 3:07 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1109

Date Received: 9/25/2018

**Field Sample #: MW-P7-092518-1**
Sampled: 9/25/2018 09:30

**Sample ID: 18I1109-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 3:45 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 71.6 | 50-125 | | 10/4/18 3:45 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1109

Date Received: 9/25/2018

**Field Sample #: MW-P11-092518-1**
Sampled: 9/25/2018 10:00

**Sample ID: 18I1109-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00094 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Dichlorobiphenyls | ND | 0.00094 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Trichlorobiphenyls | ND | 0.00094 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Heptachlorobiphenyls | ND | 0.0028 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Octachlorobiphenyls | ND | 0.0028 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Nonachlorobiphenyls | ND | 0.0047 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Decachlorobiphenyl | ND | 0.0047 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 4:22 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 72.1 | 50-125 | | 10/4/18 4:22 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1109

Date Received: 9/25/2018

**Field Sample #: MW-S15-092518-1**
Sampled: 9/25/2018 11:35

**Sample ID: 18I1109-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00095 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Dichlorobiphenyls | 0.0036 | 0.00095 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Trichlorobiphenyls | 0.017 | 0.00095 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Tetrachlorobiphenyls | 0.018 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Pentachlorobiphenyls | 0.0027 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Heptachlorobiphenyls | ND | 0.0028 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Octachlorobiphenyls | ND | 0.0028 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Nonachlorobiphenyls | ND | 0.0047 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Decachlorobiphenyl | ND | 0.0047 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |
| Total Polychlorinated biphenyls | 0.041 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:00 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 64.4 | 50-125 | | 10/4/18 5:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1109

Date Received: 9/25/2018

**Field Sample #: MW-S15-092518-2**
Sampled: 9/25/2018 11:40

**Sample ID: 18I1109-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00092 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Dichlorobiphenyls | 0.0071 | 0.00092 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Trichlorobiphenyls | 0.016 | 0.00092 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Tetrachlorobiphenyls | 0.024 | 0.0018 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Pentachlorobiphenyls | 0.0027 | 0.0018 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Hexachlorobiphenyls | ND | 0.0018 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Heptachlorobiphenyls | ND | 0.0028 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Octachlorobiphenyls | ND | 0.0028 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Nonachlorobiphenyls | ND | 0.0046 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Decachlorobiphenyl | ND | 0.0046 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |
| Total Polychlorinated biphenyls | 0.050 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 5:37 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 103 | 50-125 | | 10/4/18 5:37 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18I1109-01 [MW-AA19-092518-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1109-02 [MW-P7-092518-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1109-03 [MW-P11-092518-1] | B213579 | 960 | 0.900 | 09/28/18 |
| 18I1109-04 [MW-S15-092518-1] | B213579 | 950 | 0.900 | 09/28/18 |
| 18I1109-05 [MW-S15-092518-2] | B213579 | 980 | 0.900 | 09/28/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B213579 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B213579-BLK1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | V-20 |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.154* | | µg/L | 0.200 | | 76.8 | 50-125 | | | |
| **LCS (B213579-BS1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.22 | 0.0010 | µg/L | 0.200 | | 112 | 40-140 | | | |
| Dichlorobiphenyls | 0.26 | 0.0010 | µg/L | 0.200 | | 130 | 40-140 | | | |
| Trichlorobiphenyls | 0.25 | 0.0010 | µg/L | 0.200 | | 125 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.49 | 0.0020 | µg/L | 0.400 | | 123 | 40-140 | | | |
| Pentachlorobiphenyls | 0.55 | 0.0020 | µg/L | 0.400 | | 138 | 40-140 | | | |
| Hexachlorobiphenyls | 0.52 | 0.0020 | µg/L | 0.400 | | 130 | 40-140 | | | |
| Heptachlorobiphenyls | 0.76 | 0.0030 | µg/L | 0.600 | | 126 | 40-140 | | | |
| Octachlorobiphenyls | 0.78 | 0.0030 | µg/L | 0.600 | | 130 | 40-140 | | | |
| Nonachlorobiphenyls | 1.3 | 0.0050 | µg/L | 1.00 | | 131 | 40-140 | | | |
| Decachlorobiphenyl | 1.2 | 0.0050 | µg/L | 1.00 | | 121 | 40-140 | | | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.229* | | µg/L | 0.200 | | 114 | 50-125 | | | |
| **LCS Dup (B213579-BSD1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 81.8 | 40-140 | 31.0 | 50 | |
| Dichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 93.0 | 40-140 | 33.3 | 50 | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 92.0 | 40-140 | 30.0 | 50 | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.8 | 40-140 | 29.1 | 50 | |
| Pentachlorobiphenyls | 0.41 | 0.0020 | µg/L | 0.400 | | 103 | 40-140 | 29.2 | 50 | |
| Hexachlorobiphenyls | 0.42 | 0.0020 | µg/L | 0.400 | | 106 | 40-140 | 20.3 | 50 | |
| Heptachlorobiphenyls | 0.62 | 0.0030 | µg/L | 0.600 | | 104 | 40-140 | 19.8 | 50 | |
| Octachlorobiphenyls | 0.63 | 0.0030 | µg/L | 0.600 | | 106 | 40-140 | 20.6 | 50 | |
| Nonachlorobiphenyls | 1.1 | 0.0050 | µg/L | 1.00 | | 107 | 40-140 | 20.6 | 50 | |
| Decachlorobiphenyl | 0.98 | 0.0050 | µg/L | 1.00 | | 97.7 | 40-140 | 21.2 | 50 | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.167* | | µg/L | 0.200 | | 83.7 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

18I 1109

# CHAIN OF CUSTODY RECORD

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Drive, Ste 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler

Telephone: 1-860-263-5800
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: Matthew.Rood@aecom.com; Neil.Flahive@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-AA19-092518-1 | 9/25/18 | 0815 | | X | GW | U | X | 10 | I | A |
| 2 | MW-P7-092518-1 | 9/25/18 | 930 | | X | GW | U | X | | | |
| 3 | MW-P11-092518-1 | 9/25/18 | 1000 | | X | GW | U | X | | | |
| 4 | MW-S15-092518-1 | 9/25/18 | 1135 | | X | GW | U | X | | | |
| 5 | MW-S15-092518-2 | 9/25/18 | 1140 | | X | GW | U | X | | | |

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| | | |
|---|---|---|
| Relinquished by: (signature) | Date/Time: 9/25/18 | |
| Received by: (signature) | Date/Time: 9/25 1130 | |
| Relinquished by: (signature) | Date/Time: 9/25/18 1940 | |
| Received by: (signature) | Date/Time: 9-25-18 16:40 | |

**Turnaround** ††
☐ 7-Day
☐ 10-Day
◉ Other 5-day

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* CT RSR GWPC, SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESO Date 4-25-18 Time 16:40

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 577 Actual Temp - 2.1 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 18 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 8, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0800.2,
Laboratory Work Order Number: 18I1195

Enclosed are results of analyses for samples received by the laboratory on September 26, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18I1195-01 5

18I1195-02 6

18I1195-03 7

18I1195-04 8

18I1195-05 9

18I1195-06 10

18I1195-07 11

18I1195-08 12

18I1195-09 13

18I1195-10 14

Sample Preparation Information 15

QC Data 16

PCB Homologues by GC/MS Water 16

B213579 16

Flag/Qualifier Summary 17

Certifications 18

Chain of Custody/Sample Receipt 19

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 10/8/2018

PURCHASE ORDER NUMBER: 104017

PROJECT NUMBER: 60432356.0800.2,

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18I1195

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-Y15D-092618-1 | 18I1195-01 | Ground Water | | EPA 680 Modified | |
| MW-AA12D-092618-1 | 18I1195-02 | Ground Water | | EPA 680 Modified | |
| MW-y9-092618-1 | 18I1195-03 | Ground Water | | EPA 680 Modified | |
| MW-Y15-092618-1 | 18I1195-04 | Ground Water | | EPA 680 Modified | |
| MW-Y9D-092618-1 | 18I1195-05 | Ground Water | | EPA 680 Modified | |
| MW-AE8-092618-1 | 18I1195-06 | Ground Water | | EPA 680 Modified | |
| MW-X17-092618-1 | 18I1195-07 | Ground Water | | EPA 680 Modified | |
| MW-V18-092618-1 | 18I1195-08 | Ground Water | | EPA 680 Modified | |
| MW-AL10-092618-1 | 18I1195-09 | Ground Water | | EPA 680 Modified | |
| MW-AP11-092618-1 | 18I1195-10 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**S-03**

Surrogate recovery outside of control limits due to suspected sample matrix interference.

**Analyte & Samples(s) Qualified:**

**Tetrachloro-m-xylene**
18I1195-03[MW-y9-092618-1]

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B213579-BS1, B213579-BSD1

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
18I1195-01[MW-Y15D-092618-1], 18I1195-02[MW-AA12D-092618-1], 18I1195-03[MW-y9-092618-1], 18I1195-04[MW-Y15-092618-1], 18I1195-05[MW-Y9D-092618-1], 18I1195-06[MW-AE8-092618-1], 18I1195-07[MW-X17-092618-1], 18I1195-08[MW-V18-092618-1], 18I1195-09[MW-AL10-092618-1], 18I1195-10[MW-AP11-092618-1], B213579-BLK1

**Nonachlorobiphenyls**
18I1195-03[MW-y9-092618-1]

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-Y15D-092618-1**
Sampled: 9/26/2018 08:15

**Sample ID: 18I1195-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0014 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |
| Total Polychlorinated biphenyls | 0.0014 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 21:22 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 115 | 50-125 | | 10/4/18 21:22 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-AA12D-092618-1** | Sampled: 9/26/2018 08:30

**Sample ID: 18I1195-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0012 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Dichlorobiphenyls | 0.013 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Trichlorobiphenyls | 0.086 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Tetrachlorobiphenyls | 0.14 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Pentachlorobiphenyls | 0.043 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Hexachlorobiphenyls | 0.0030 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |
| Total Polychlorinated biphenyls | 0.28 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 22:00 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 107 | 50-125 | | 10/4/18 22:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-y9-092618-1**
Sampled: 9/26/2018 10:25

**Sample ID: 18I1195-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Tetrachlorobiphenyls | 0.0092 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Pentachlorobiphenyls | 0.013 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Hexachlorobiphenyls | 0.0042 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |
| Total Polychlorinated biphenyls | 0.026 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 11:05 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| **Tetrachloro-m-xylene** | **182** * | 50-125 | S-03 | 10/5/18 11:05 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-Y15-092618-1**
Sampled: 9/26/2018 08:55

**Sample ID: 18I1195-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 9.7 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Dichlorobiphenyls | 9.6 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Trichlorobiphenyls | 1.4 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Tetrachlorobiphenyls | 0.30 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Pentachlorobiphenyls | 0.041 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Hexachlorobiphenyls | 0.0022 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |
| Total Polychlorinated biphenyls | 21 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:14 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 112 | 50-125 | | 10/4/18 23:14 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-Y9D-092618-1**
Sampled: 9/26/2018 09:50

**Sample ID: 18I1195-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0082 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Dichlorobiphenyls | 0.0076 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Tetrachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |
| Total Polychlorinated biphenyls | 0.016 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/4/18 23:52 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 93.9 | 50-125 | | 10/4/18 23:52 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-AE8-092618-1**
Sampled: 9/26/2018 09:45

**Sample ID: 18I1195-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0034 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Dichlorobiphenyls | 0.0049 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Trichlorobiphenyls | 0.013 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Tetrachlorobiphenyls | 0.048 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Pentachlorobiphenyls | 0.0085 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |
| Total Polychlorinated biphenyls | 0.077 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 0:29 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 61.3 | 50-125 | | 10/5/18 0:29 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-X17-092618-1**
Sampled: 9/26/2018 11:45

**Sample ID: 18I1195-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0016 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Dichlorobiphenyls | 0.0042 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Trichlorobiphenyls | 0.0035 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Tetrachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |
| Total Polychlorinated biphenyls | 0.0093 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:07 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 77.5 | 50-125 | | 10/5/18 1:07 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-V18-092618-1**
Sampled: 9/26/2018 12:25

**Sample ID: 18I1195-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0016 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Dichlorobiphenyls | 0.015 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Trichlorobiphenyls | 0.036 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Tetrachlorobiphenyls | 0.028 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Heptachlorobiphenyls | ND | 0.0032 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Octachlorobiphenyls | ND | 0.0032 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Nonachlorobiphenyls | ND | 0.0053 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Decachlorobiphenyl | ND | 0.0053 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |
| Total Polychlorinated biphenyls | 0.080 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 1:44 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 68.8 | 50-125 | | 10/5/18 1:44 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-AL10-092618-1** | Sampled: 9/26/2018 12:00

**Sample ID: 18I1195-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Tetrachlorobiphenyls | 0.0025 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |
| Total Polychlorinated biphenyls | 0.0025 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:21 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 71.3 | 50-125 | | 10/5/18 2:21 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1195

Date Received: 9/26/2018

**Field Sample #: MW-AP11-092618-1**
Sampled: 9/26/2018 13:45

**Sample ID: 18I1195-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Dichlorobiphenyls | 0.0017 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |
| Total Polychlorinated biphenyls | 0.0017 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 2:59 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 69.9 | 50-125 | | 10/5/18 2:59 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18I1195-01 [MW-Y15D-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1195-02 [MW-AA12D-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1195-03 [MW-y9-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1195-04 [MW-Y15-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1195-05 [MW-Y9D-092618-1] | B213579 | 960 | 1.00 | 09/28/18 |
| 18I1195-06 [MW-AE8-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1195-07 [MW-X17-092618-1] | B213579 | 960 | 1.00 | 09/28/18 |
| 18I1195-08 [MW-V18-092618-1] | B213579 | 950 | 1.00 | 09/28/18 |
| 18I1195-09 [MW-AL10-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1195-10 [MW-AP11-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B213579 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B213579-BLK1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | V-20 |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.154* | | µg/L | 0.200 | | 76.8 | 50-125 | | | |
| **LCS (B213579-BS1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.22 | 0.0010 | µg/L | 0.200 | | 112 | 40-140 | | | |
| Dichlorobiphenyls | 0.26 | 0.0010 | µg/L | 0.200 | | 130 | 40-140 | | | |
| Trichlorobiphenyls | 0.25 | 0.0010 | µg/L | 0.200 | | 125 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.49 | 0.0020 | µg/L | 0.400 | | 123 | 40-140 | | | |
| Pentachlorobiphenyls | 0.55 | 0.0020 | µg/L | 0.400 | | 138 | 40-140 | | | |
| Hexachlorobiphenyls | 0.52 | 0.0020 | µg/L | 0.400 | | 130 | 40-140 | | | |
| Heptachlorobiphenyls | 0.76 | 0.0030 | µg/L | 0.600 | | 126 | 40-140 | | | |
| Octachlorobiphenyls | 0.78 | 0.0030 | µg/L | 0.600 | | 130 | 40-140 | | | |
| Nonachlorobiphenyls | 1.3 | 0.0050 | µg/L | 1.00 | | 131 | 40-140 | | | |
| Decachlorobiphenyl | 1.2 | 0.0050 | µg/L | 1.00 | | 121 | 40-140 | | | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.229* | | µg/L | 0.200 | | 114 | 50-125 | | | |
| **LCS Dup (B213579-BSD1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 81.8 | 40-140 | 31.0 | 50 | |
| Dichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 93.0 | 40-140 | 33.3 | 50 | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 92.0 | 40-140 | 30.0 | 50 | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.8 | 40-140 | 29.1 | 50 | |
| Pentachlorobiphenyls | 0.41 | 0.0020 | µg/L | 0.400 | | 103 | 40-140 | 29.2 | 50 | |
| Hexachlorobiphenyls | 0.42 | 0.0020 | µg/L | 0.400 | | 106 | 40-140 | 20.3 | 50 | |
| Heptachlorobiphenyls | 0.62 | 0.0030 | µg/L | 0.600 | | 104 | 40-140 | 19.8 | 50 | |
| Octachlorobiphenyls | 0.63 | 0.0030 | µg/L | 0.600 | | 106 | 40-140 | 20.6 | 50 | |
| Nonachlorobiphenyls | 1.1 | 0.0050 | µg/L | 1.00 | | 107 | 40-140 | 20.6 | 50 | |
| Decachlorobiphenyl | 0.98 | 0.0050 | µg/L | 1.00 | | 97.7 | 40-140 | 21.2 | 50 | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.167* | | µg/L | 0.200 | | 83.7 | 50-125 | | | |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| S-03 | Surrogate recovery outside of control limits due to suspected sample matrix interference. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB

**con-test®** ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



181195

Rev 04.05.12

Company Name: AECOM
Address: 500 Enterprise Drive, Ste 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / E. Albrecht

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone: 1-860-263-5800
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: Matthew.Rood@aecom.com; Neil.Flahive@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | | | | | | | | | | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | 20 | I | A |
| 1 | (EB) Y15D MW-~~Y4D~~ 092618-1 | 9/26/18 | 0815 | | X | GW | U | X | | | | | | | | | | | | |
| 2 | MW-AA12D-092618-1 | 9/26/18 | 0830 | | X | GW | U | X | | | | | | | | | | | | |
| 3 | MW-Y9-092618-1 | 9/26/18 | 1025 | | X | GW | U | X | | | | | | | | | | | | |
| 4 | MW-Y15-092618-1 | 9/26/18 | 0855 | | X | GW | U | X | | | | | | | | | | | | |
| 5 | MW-Y9D-092618-1 | 9/26/18 | 950 | | X | GW | U | X | | | | | | | | | | | | |
| 6 | MW-AE8-092618-1 | 9/26/18 | 0945 | | X | GW | U | X | | | | | | | | | | | | |
| 7 | MW-X17-092618-1 | 9/26/18 | 1145 | | X | GW | U | X | | | | | | | | | | | | |
| 8 | MW-V18-092618-1 | 9/26/18 | 1225 | | X | GW | U | X | | | | | | | | | | | | |
| 9 | MW-AL10-092618-1 | 9/26/18 | 1200 | | X | GW | U | X | | | | | | | | | | | | |
| 10 | MW-AP11-092618-1 | 9/26/18 | 1345 | | X | GW | U | X | | | | | | | | | | | | |

Comments:
9-26-18 17:21 3.7, 2.9

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| 9/25/18 | 1455 |
| Received by: (signature) 9/26/18 | 1455 |
| Relinquished by: (signature) 9/26/18 | 1605 |
| Received by: (signature) 9/26/18 | 16:15 |

**Turnaround** ††
☐ 7-Day
☐ 10-Day
◉ Other 5-day

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* CT RSR GWPC, SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

**NELAC & AIHA-LAP, LLC Accredited**
**WBE/DBE Certified**

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**

9/26/18 17:21



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESD Date 9.26.18 Time 17:21

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 578 Actual Temp - 29.3 °
By Blank # ____ Actual Temp -

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 19 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 5, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0800.2,
Laboratory Work Order Number: 18I1258

Enclosed are results of analyses for samples received by the laboratory on September 27, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18I1258-01 5

18I1258-02 6

18I1258-03 7

18I1258-04 8

18I1258-05 9

18I1258-06 10

18I1258-07 11

18I1258-08 12

18I1258-09 13

18I1258-10 14

18I1258-11 15

Sample Preparation Information 16

QC Data 17

PCB Homologues by GC/MS Water 17

B213604 17

Flag/Qualifier Summary 18

Certifications 19

Chain of Custody/Sample Receipt 20

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 10/5/2018

PURCHASE ORDER NUMBER: 104017

PROJECT NUMBER: 60432356.0800.2,

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18I1258

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AJ13D-092718-1 | 18I1258-01 | Ground Water | | EPA 680 Modified | |
| MW-AJ13-092718-1 | 18I1258-02 | Ground Water | | EPA 680 Modified | |
| MW-AG10-092718-1 | 18I1258-03 | Ground Water | | EPA 680 Modified | |
| MW-AM16D-092718-1 | 18I1258-04 | Ground Water | | EPA 680 Modified | |
| MW-AM16R-092718-1 | 18I1258-05 | Ground Water | | EPA 680 Modified | |
| MW-AV17-092718-1 | 18I1258-06 | Ground Water | | EPA 680 Modified | |
| MW-AP28-092718-1 | 18I1258-07 | Ground Water | | EPA 680 Modified | |
| MW-AG30-092718-1 | 18I1258-08 | Ground Water | | EPA 680 Modified | |
| MW-V18-092618-1 | 18I1258-09 | Ground Water | | EPA 680 Modified | |
| MW-AH160-092718-1 | 18I1258-10 | Ground Water | | EPA 680 Modified | |
| MW-AH16R-092718-1 | 18I1258-11 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

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**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B213604-BS1, B213604-BSD1, S027931-CCV2

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B213604-BLK1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AJ13D-092718-1** | Sampled: 9/27/2018 07:45

**Sample ID: 18I1258-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0032 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Dichlorobiphenyls | 0.045 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Trichlorobiphenyls | 0.036 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Tetrachlorobiphenyls | 0.015 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Pentachlorobiphenyls | 0.010 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Hexachlorobiphenyls | 0.0025 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |
| Total Polychlorinated biphenyls | 0.11 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 12:00 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 84.3 | 50-125 | | 10/4/18 12:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AJ13-092718-1** | Sampled: 9/27/2018 08:15

**Sample ID: 18I1258-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0036 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Dichlorobiphenyls | 0.47 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Trichlorobiphenyls | 2.6 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Tetrachlorobiphenyls | 0.66 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Pentachlorobiphenyls | 0.071 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Hexachlorobiphenyls | 0.0036 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |
| Total Polychlorinated biphenyls | 3.8 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:15 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.4 | 50-125 | | 10/4/18 13:15 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AG10-092718-1**
Sampled: 9/27/2018 08:40

**Sample ID: 18I1258-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.024 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Dichlorobiphenyls | 0.25 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Trichlorobiphenyls | 0.12 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Tetrachlorobiphenyls | 0.11 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Pentachlorobiphenyls | 0.016 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |
| Total Polychlorinated biphenyls | 0.52 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 13:53 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 80.1 | 50-125 | | 10/4/18 13:53 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AM16D-092718-1**
Sampled: 9/27/2018 09:15

**Sample ID: 18I1258-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Trichlorobiphenyls | 0.0050 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Tetrachlorobiphenyls | 0.015 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Pentachlorobiphenyls | 0.0025 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |
| Total Polychlorinated biphenyls | 0.022 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 14:30 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 74.9 | 50-125 | | 10/4/18 14:30 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AM16R-092718-1**
Sampled: 9/27/2018 09:35

**Sample ID: 18I1258-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.010 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Dichlorobiphenyls | 0.10 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Trichlorobiphenyls | 0.19 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Tetrachlorobiphenyls | 0.20 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Pentachlorobiphenyls | 0.028 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |
| Total Polychlorinated biphenyls | 0.54 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:08 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 82.6 | 50-125 | | 10/4/18 15:08 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AV17-092718-1**
Sampled: 9/27/2018 10:10

**Sample ID: 18I1258-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Tetrachlorobiphenyls | 0.0063 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |
| Total Polychlorinated biphenyls | 0.0063 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 15:45 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 81.3 | 50-125 | | 10/4/18 15:45 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AP28-092718-1** | Sampled: 9/27/2018 11:25

**Sample ID: 18I1258-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 16:23 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 76.9 | 50-125 | | 10/4/18 16:23 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AG30-092718-1**
Sampled: 9/27/2018 12:20

**Sample ID: 18I1258-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0012 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Dichlorobiphenyls | ND | 0.0012 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Trichlorobiphenyls | ND | 0.0012 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Tetrachlorobiphenyls | 0.0039 | 0.0025 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Pentachlorobiphenyls | 0.0065 | 0.0025 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Hexachlorobiphenyls | 0.0044 | 0.0025 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Heptachlorobiphenyls | ND | 0.0037 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Octachlorobiphenyls | ND | 0.0037 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Nonachlorobiphenyls | ND | 0.0062 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Decachlorobiphenyl | ND | 0.0062 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |
| Total Polychlorinated biphenyls | 0.015 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:00 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 77.7 | 50-125 | | 10/4/18 17:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-V18-092618-1**
Sampled: 9/26/2018 12:25

**Sample ID: 18I1258-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0011 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Dichlorobiphenyls | 0.014 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Trichlorobiphenyls | 0.039 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Tetrachlorobiphenyls | 0.022 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |
| Total Polychlorinated biphenyls | 0.075 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 17:37 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 87.6 | 50-125 | | 10/4/18 17:37 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AH160-092718-1** | Sampled: 9/27/2018 13:55

**Sample ID: 18I1258-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.031 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Dichlorobiphenyls | 0.10 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Trichlorobiphenyls | 0.057 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Tetrachlorobiphenyls | 0.024 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |
| Total Polychlorinated biphenyls | 0.22 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:15 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 80.2 | 50-125 | | 10/4/18 18:15 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18I1258

Date Received: 9/27/2018

**Field Sample #: MW-AH16R-092718-1** | Sampled: 9/27/2018 14:30

**Sample ID: 18I1258-11**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 7.4 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Dichlorobiphenyls | 6.3 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Trichlorobiphenyls | 1.1 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Tetrachlorobiphenyls | 0.33 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Pentachlorobiphenyls | 0.047 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Hexachlorobiphenyls | 0.0047 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |
| Total Polychlorinated biphenyls | 15 | | µg/L | 1 | | EPA 680 Modified | 9/29/18 | 10/4/18 18:52 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 82.5 | 50-125 | | 10/4/18 18:52 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18I1258-01 [MW-AJ13D-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-02 [MW-AJ13-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-03 [MW-AG10-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-04 [MW-AM16D-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-05 [MW-AM16R-092718-1] | B213604 | 980 | 1.00 | 09/29/18 |
| 18I1258-06 [MW-AV17-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-07 [MW-AP28-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-08 [MW-AG30-092718-1] | B213604 | 810 | 1.00 | 09/29/18 |
| 18I1258-09 [MW-V18-092618-1] | B213604 | 980 | 1.00 | 09/29/18 |
| 18I1258-10 [MW-AH160-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |
| 18I1258-11 [MW-AH16R-092718-1] | B213604 | 1000 | 1.00 | 09/29/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B213604 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B213604-BLK1)** | | | | Prepared: 09/29/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | V-20 |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.161* | | µg/L | 0.200 | | 80.7 | 50-125 | | | |
| **LCS (B213604-BS1)** | | | | Prepared: 09/29/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 77.8 | 40-140 | | | |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 81.0 | 40-140 | | | |
| Trichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 78.9 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 80.5 | 40-140 | | | |
| Pentachlorobiphenyls | 0.39 | 0.0020 | µg/L | 0.400 | | 98.0 | 40-140 | | | |
| Hexachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 96.0 | 40-140 | | | |
| Heptachlorobiphenyls | 0.57 | 0.0030 | µg/L | 0.600 | | 95.1 | 40-140 | | | |
| Octachlorobiphenyls | 0.60 | 0.0030 | µg/L | 0.600 | | 99.7 | 40-140 | | | |
| Nonachlorobiphenyls | 1.1 | 0.0050 | µg/L | 1.00 | | 106 | 40-140 | | | |
| Decachlorobiphenyl | 1.1 | 0.0050 | µg/L | 1.00 | | 105 | 40-140 | | | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.159* | | µg/L | 0.200 | | 79.7 | 50-125 | | | |
| **LCS Dup (B213604-BSD1)** | | | | Prepared: 09/29/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 86.6 | 40-140 | 10.6 | 50 | |
| Dichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 92.5 | 40-140 | 13.2 | 50 | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 89.5 | 40-140 | 12.5 | 50 | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.3 | 40-140 | 12.6 | 50 | |
| Pentachlorobiphenyls | 0.42 | 0.0020 | µg/L | 0.400 | | 106 | 40-140 | 7.57 | 50 | |
| Hexachlorobiphenyls | 0.43 | 0.0020 | µg/L | 0.400 | | 107 | 40-140 | 10.7 | 50 | |
| Heptachlorobiphenyls | 0.63 | 0.0030 | µg/L | 0.600 | | 105 | 40-140 | 9.68 | 50 | |
| Octachlorobiphenyls | 0.66 | 0.0030 | µg/L | 0.600 | | 110 | 40-140 | 9.74 | 50 | |
| Nonachlorobiphenyls | 1.2 | 0.0050 | µg/L | 1.00 | | 118 | 40-140 | 10.5 | 50 | |
| Decachlorobiphenyl | 1.2 | 0.0050 | µg/L | 1.00 | | 117 | 40-140 | 10.9 | 50 | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.170* | | µg/L | 0.200 | | 85.1 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



18I1258

Rev. 04.05.12

Company Name: AECOM
Address: 500 Enterprise Drive, Ste 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Deorfler / E. Albrecht

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone: 1-860-263-5800
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: Matthew.Rood@aecom.com; Neil.Flahive@aecom.com
Format: ◉ PDF ◉ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 (18) | | | | | | | | | | # of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | I | | | | | | | | | | ** Preservation |
| | | | | | | | | A | | | | | | | | | | ***Container Code |
| 1 | MW-AJ13D-092718-1 | 9/27/18 | 0745 | | X | GW | U | X | | | | | | | | | | |
| 2 | MW-AJ13-092718-1 | 9/27/18 | 0815 | | X | GW | U | X | | | | | | | | | | |
| 3 | MW-AG10-092718-1 | 9/27/18 | 0840 | | X | GW | U | X | | | | | | | | | | |
| 4 | MW-AM16D-092718-1 | 9/27/18 | 0915 | | X | GW | U | X | | | | | | | | | | |
| — | ~~MW-AM16D-092718-1~~ | ~~9/27/18~~ | | | ~~X~~ | ~~GW~~ | ~~U~~ | ~~X~~ | | | | | | | | | | |
| 5 | MW-AM16R-092718-1 | 9/27/18 | 0935 | | X | GW | U | X | | | | | | | | | | |
| 6 | MW-AV17-092718-1 | 9/27/18 | 1010 | | X | GW | U | X | | | | | | | | | | |
| 7 | MW-AP23-092718-1 | 9/27/18 | 1126 | | X | GW | U | X | | | | | | | | | | |
| 8 | MW-AG30-092718-1 | 9/27/18 | 1220 | | X | GW | U | X | | | | | | | | | | |
| 9 | MW-V18-092618-1 | 9/26/18 | ~~1325~~ 1325 | | X | GW | U | X | | | | | | | | | | |

Comments:
sample MW-V18-092618-1 has (1) 1L amber. (1) 1L was picked up by lab yesterday.
9-27-18 5:30, 3.6 18:30

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| Relinquished by: (signature) | Date/Time: |
|---|---|
| E. Albrecht | 9/27/18 1510 |
| Received by: (signature) | Date/Time: |
| | 9/27/18 1510 |
| Relinquished by: (signature) | Date/Time: |
| | 9/27/18 1620 |
| Received by: (signature) | Date/Time: |
| | 9/27/18 1620 |

**Turnaround** ††
☐ 7-Day
☐ 10-Day
◉ Other 5-day
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* CT RSR GWPC, SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**

9-27-18 1830



Table of Contents

con-test® ANALYTICAL LABORATORY

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Email: info@contestlabs.com
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# CHAIN OF CUSTODY RECORD

18I258

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Drive, Ste 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Dorcher / E. Albrecht

Telephone: 1-860-263-5800
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
O FAX ◉ EMAIL O WEBSITE
Fax #
Email: Matthew.Rood@aecom.com; Neil.Flahive@aecom.com
Format: ◉ PDF ◉ EXCEL O GIS
◉ OTHER EDD - Equis
O "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | 4 | I | A |
| | ~~MW-[illegible]-AH67-092718-1~~ | ~~9/27/18~~ | ~~1305~~ | | ~~X~~ | ~~GW~~ | ~~U~~ | ~~X~~ | ~~GW~~ | | | |
| 10 | MW-AH160-092718-1 | 9/27/18 | 1355 | | X | GW | U | X | | | | |
| 11 | MW-AH160R-092718-1 | 9/27/18 | 1430 | | X | GW | U | X | | | | |

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

Comments:
9-27-18 5.3, 5.0 3 c 18.3°

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| | Date/Time: |
|---|---|
| Relinquished by: (signature) E. Albrecht | 9/27/18 1510 |
| Received by: (signature) | 9/27/18 1510 |
| Relinquished by: (signature) | 9/27/18 1620 |
| Received by: (signature) | 9-27-18 1620 |

Turnaround ††
☐ 7-Day
☐ 10-Day
◉ Other 5-day
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut: CT RSR GWPC, SWPC
Other:

Is your project MCP or RCP ?
O MCP Form Required
◉ RCP Form Required
O MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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9-27-18 1830



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESO Date 9-25-18 Time 18:30

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient < Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 53 Actual Temp - 5.3, 5.0, 3.0
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? ____
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? F On COC? F
Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 2 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

October 8, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0800.2,
Laboratory Work Order Number: 18I1259

Enclosed are results of analyses for samples received by the laboratory on September 27, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18I1259-01 5

18I1259-02 6

18I1259-03 7

Sample Preparation Information 8

QC Data 9

PCB Homologues by GC/MS Water 9

B213579 9

Flag/Qualifier Summary 10

Certifications 11

Chain of Custody/Sample Receipt 12

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 10/8/2018

PURCHASE ORDER NUMBER: 104017

PROJECT NUMBER: 60432356.0800.2,

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18I1259

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| UGF4-092618-1 | 18I1259-01 | Ground Water | | EPA 680 Modified | |
| UGF4-092618-2 | 18I1259-02 | Ground Water | | EPA 680 Modified | |
| DGF3-092618-1 | 18I1259-03 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B213579-BS1, B213579-BSD1

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
18I1259-01[UGF4-092618-1], 18I1259-02[UGF4-092618-2], 18I1259-03[DGF3-092618-1], B213579-BLK1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1259

Date Received: 9/27/2018

**Field Sample #: UGF4-092618-1**
Sampled: 9/26/2018 16:25

**Sample ID: 18I1259-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0027 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Dichlorobiphenyls | 0.0047 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Trichlorobiphenyls | 0.025 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Tetrachlorobiphenyls | 0.054 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Pentachlorobiphenyls | 0.022 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Hexachlorobiphenyls | 0.0027 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |
| Total Polychlorinated biphenyls | 0.11 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 3:36 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 82.5 | 50-125 | | 10/5/18 3:36 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1259

Date Received: 9/27/2018

**Field Sample #: UGF4-092618-2**
Sampled: 9/26/2018 16:30

**Sample ID: 18I1259-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0019 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Dichlorobiphenyls | 0.0028 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Trichlorobiphenyls | 0.024 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Tetrachlorobiphenyls | 0.050 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Pentachlorobiphenyls | 0.022 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |
| Total Polychlorinated biphenyls | 0.10 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:14 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.1 | 50-125 | | 10/5/18 4:14 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18I1259

Date Received: 9/27/2018

**Field Sample #: DGF3-092618-1**
Sampled: 9/26/2018 16:15

**Sample ID: 18I1259-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Trichlorobiphenyls | 0.0017 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Tetrachlorobiphenyls | 0.013 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Pentachlorobiphenyls | 0.0030 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |
| Total Polychlorinated biphenyls | 0.018 | | µg/L | 1 | | EPA 680 Modified | 9/28/18 | 10/5/18 4:51 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 71.1 | 50-125 | | 10/5/18 4:51 |

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## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18I1259-01 [UGF4-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1259-02 [UGF4-092618-2] | B213579 | 1000 | 1.00 | 09/28/18 |
| 18I1259-03 [DGF3-092618-1] | B213579 | 1000 | 1.00 | 09/28/18 |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B213579 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B213579-BLK1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | V-20 |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.154* | | µg/L | 0.200 | | 76.8 | 50-125 | | | |
| **LCS (B213579-BS1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.22 | 0.0010 | µg/L | 0.200 | | 112 | 40-140 | | | |
| Dichlorobiphenyls | 0.26 | 0.0010 | µg/L | 0.200 | | 130 | 40-140 | | | |
| Trichlorobiphenyls | 0.25 | 0.0010 | µg/L | 0.200 | | 125 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.49 | 0.0020 | µg/L | 0.400 | | 123 | 40-140 | | | |
| Pentachlorobiphenyls | 0.55 | 0.0020 | µg/L | 0.400 | | 138 | 40-140 | | | |
| Hexachlorobiphenyls | 0.52 | 0.0020 | µg/L | 0.400 | | 130 | 40-140 | | | |
| Heptachlorobiphenyls | 0.76 | 0.0030 | µg/L | 0.600 | | 126 | 40-140 | | | |
| Octachlorobiphenyls | 0.78 | 0.0030 | µg/L | 0.600 | | 130 | 40-140 | | | |
| Nonachlorobiphenyls | 1.3 | 0.0050 | µg/L | 1.00 | | 131 | 40-140 | | | |
| Decachlorobiphenyl | 1.2 | 0.0050 | µg/L | 1.00 | | 121 | 40-140 | | | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.229* | | µg/L | 0.200 | | 114 | 50-125 | | | |
| **LCS Dup (B213579-BSD1)** | | | | Prepared: 09/28/18 Analyzed: 10/04/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 81.8 | 40-140 | 31.0 | 50 | |
| Dichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 93.0 | 40-140 | 33.3 | 50 | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 92.0 | 40-140 | 30.0 | 50 | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.8 | 40-140 | 29.1 | 50 | |
| Pentachlorobiphenyls | 0.41 | 0.0020 | µg/L | 0.400 | | 103 | 40-140 | 29.2 | 50 | |
| Hexachlorobiphenyls | 0.42 | 0.0020 | µg/L | 0.400 | | 106 | 40-140 | 20.3 | 50 | |
| Heptachlorobiphenyls | 0.62 | 0.0030 | µg/L | 0.600 | | 104 | 40-140 | 19.8 | 50 | |
| Octachlorobiphenyls | 0.63 | 0.0030 | µg/L | 0.600 | | 106 | 40-140 | 20.6 | 50 | |
| Nonachlorobiphenyls | 1.1 | 0.0050 | µg/L | 1.00 | | 107 | 40-140 | 20.6 | 50 | |
| Decachlorobiphenyl | 0.98 | 0.0050 | µg/L | 1.00 | | 97.7 | 40-140 | 21.2 | 50 | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.167* | | µg/L | 0.200 | | 83.7 | 50-125 | | | |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2018 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2018 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2018 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

con-test ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com

1831259

http://www.contestlabs.com

Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028



**Required Turnaround Time**
7-Day ☑ 10-Day ☐
Due Date:

**Rush Approval Required**
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

**Data Delivery**
Format: PDF ☑ EXCEL ☑
Other: EQuIS
CLP Like Data Pkg Required: ☐
Email To: Matthew.Rood@aecom.com
Fax To #:

Company Name: AECOM
Address: 500 Enterprise Drive Rocky Hill CT 06067
Phone:
Project Name: Greenwich High School
Project Location: Greenwich, CT
Project Number: 60432356
Project Manager: Matthew Rood
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By:

ANALYSIS REQUESTED

| Con-Test Work Order# | Client Sample ID / Description | Beginning Date/Time | Ending Date/Time | Composite | Grab | [1]Matrix Code | Conc Code | PCBs - Hornlogs Method 680 | | | | | | | | | | | | # of Containers | [2] Preservation Code | [3] Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 6 | | | | | | | | | | | | 6 | I | 4 |
| 1 | UGF4-092618-1 | 9/26/18 | 16:25 | | ✓ | GW | | X | | | | | | | | | | | | | | |
| 2 | UGF4-092618-2 | ↓ | 16:30 | | ✓ | GW | | X | | | | | | | | | | | | | | |
| 3 | DGF3-092618-1 | ↓ | 16:15 | | ✓ | GW | | X | | | | | | | | | | | | | | |

Comments:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
**H - High; M - Medium; L - Low; C - Clean; U - Unknown**

**Dissolved Metals Samples**
○ Field Filtered
○ Lab to Filter

**Orthophosphate Samples**
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

| Relinquished by: (signature) | Date/Time: |
|---|---|
| E. Albrecht | 9/27/18 1508 |
| Received by: (signature) | Date/Time: 9/27/18 1510 |
| Relinquished by: (signature) | Date/Time: 9/27/18 1620 |
| Received by: (signature) | Date/Time: 9-27-18 1830 |
| Relinquished by: (signature) | Date/Time: 9-27-18 1830 |
| Received by: (signature) 5.3 9-27-18 | Date/Time: 18:30 |

**Detection Limit Requirements**
MA
CT
Other:

**Special Requirements**
☐ MA MCP Required
MCP Certification Form Required
☑ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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**Project Entity**
☐ Government ☑ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

**Other**
☐ Chromatogram
☐ *AIHA-LAP,LLC*

**PCB ONLY**
☐ Soxhlet
☐ Non Soxhlet



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** ESO Date 9-25-18 Time 10:30

How were the samples received? In Cooler T No Cooler ____ On Ice ____ No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 537 Actual Temp - 5.3
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis ID's T Sampler Name T
Project T ID's + Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? NA Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 6 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 24, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356
Laboratory Work Order Number: 18L0663

Enclosed are results of analyses for samples received by the laboratory on December 13, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 8

18L0663-01 8

18L0663-02 14

18L0663-03 20

18L0663-04 21

18L0663-05 28

18L0663-06 35

18L0663-07 36

18L0663-08 38

18L0663-09 39

18L0663-10 40

18L0663-11 41

Sample Preparation Information 42

QC Data 44

PCB Homologues by GC/MS Water 44

B219667 44

Volatile Organic Compounds by GC/MS 45

B219350 45

B219556 47

Semivolatile Organic Compounds by GC/MS 51

B219738 51

Organochloride Pesticides by GC/ECD 53

B219689 53

# Table of Contents (continued)


Petroleum Hydrocarbons Analyses 56

B219455 56

Metals Analyses (Total) 57

B219596 57

B219714 58

Pesticides Degradation Report 59

Dual Column RPD Report 61

Flag/Qualifier Summary 65

Certifications 66

Chain of Custody/Sample Receipt 70

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 12/24/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18L0663

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-P7-121318-1 | 18L0663-01 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-AE8-121318-41 | 18L0663-02 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-P11-121318-1 | 18L0663-03 | Ground Water | | EPA 680 Modified | |
| MW-S15-121318-1 | 18L0663-04 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-S15-121318-2 | 18L0663-05 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-X17-121318-1 | 18L0663-06 | Ground Water | | EPA 680 Modified | |
| Trip Blank | 18L0663-07 | Trip Blank Water | | SW-846 8260C | |
| MW-V18-121318-1 | 18L0663-08 | Ground Water | | EPA 680 Modified | |
| MW-T23-121318-1 | 18L0663-09 | Ground Water | | EPA 680 Modified | |
| MW-AA19-121318-1 | 18L0663-10 | Ground Water | | EPA 680 Modified | |
| MW-AA12-121318-1 | 18L0663-11 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

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**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270, only PAHs were requested and reported.

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
B219667-BS1, B219667-BSD1, S030584-CCV1

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Decachlorobiphenyl**
18L0663-01[MW-P7-121318-1], 18L0663-02[MW-AE8-121318-41], 18L0663-03[MW-P11-121318-1], 18L0663-04[MW-S15-121318-1], 18L0663-05[MW-S15-121318-2], 18L0663-06[MW-X17-121318-1], 18L0663-08[MW-V18-121318-1], 18L0663-09[MW-T23-121318-1], 18L0663-10[MW-AA19-121318-1], 18L0663-11[MW-AA12-121318-1], B219667-BLK1

**SW-846 8081B**

**Qualifications:**

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Aldrin**
B219689-BS1, B219689-BSD1

**alpha-BHC**
B219689-BS1, B219689-BSD1

**gamma-BHC (Lindane)**
B219689-BS1, B219689-BSD1

**SW-846 8260C**

**Qualifications:**

**DL-01**

Elevated reporting limits for all volatile compounds due to foaming sample matrix.

**Analyte & Samples(s) Qualified:**

18L0663-02[MW-AE8-121318-41]

**L-01**

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

**Analyte & Samples(s) Qualified:**

**Acrylonitrile**
B219556-BS1

**Chloromethane**
B219556-BS1

**Methylene Chloride**
B219556-BS1

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:**

**Naphthalene**
18L0663-01[MW-P7-121318-1], 18L0663-02[MW-AE8-121318-41], 18L0663-04[MW-S15-121318-1], 18L0663-05[MW-S15-121318-2], B219556-BLK1, B219556-BS1, S030615-CCV1

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acrylonitrile**
B219556-BS1, S030615-CCV1

**Bromomethane**
B219350-BS1, S030547-CCV1

**Chloromethane**
B219556-BS1, S030615-CCV1

**Methylene Chloride**
B219556-BS1, S030615-CCV1

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**
B219556-BS1, S030615-CCV1

**Carbon Disulfide**
B219556-BS1, S030615-CCV1

**Hexachlorobutadiene**
B219350-BS1, S030547-CCV1

**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski
Laboratory Director

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-P7-121318-1**
Sampled: 12/13/2018 08:10
**Sample ID: 18L0663-01**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 11:57 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 102 | 50-125 | | 12/21/18 11:57 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-P7-121318-1**
Sampled: 12/13/2018 08:10

**Sample ID: 18L0663-01**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-P7-121318-1**
Sampled: 12/13/2018 08:10
**Sample ID: 18L0663-01**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | V-05 | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 5:15 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 96.9 | 70-130 | | 12/20/18 5:15 |
| Toluene-d8 | 99.9 | 70-130 | | 12/20/18 5:15 |
| 4-Bromofluorobenzene | 99.9 | 70-130 | | 12/20/18 5:15 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-P7-121318-1**
Sampled: 12/13/2018 08:10

**Sample ID: 18L0663-01**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 10:49 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 88.4 | 30-130 | | 12/21/18 10:49 |
| 2-Fluorobiphenyl | 55.7 | 30-130 | | 12/21/18 10:49 |
| p-Terphenyl-d14 | 70.5 | 30-130 | | 12/21/18 10:49 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-P7-121318-1**
Sampled: 12/13/2018 08:10

**Sample ID: 18L0663-01**

Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.077 | mg/L | 1 | | CTDEP ETPH | 12/18/18 | 12/20/18 18:07 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 76.6 | 50-150 | | 12/20/18 18:07 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-P7-121318-1**
Sampled: 12/13/2018 08:10
**Sample ID: 18L0663-01**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Arsenic | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Barium | 140 | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/24/18 9:00 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 12:02 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:04 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-AE8-121318-41**
Sampled: 12/13/2018 08:25

**Sample ID: 18L0663-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Trichlorobiphenyls | 0.0074 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Tetrachlorobiphenyls | 0.035 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Pentachlorobiphenyls | 0.013 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |
| Total Polychlorinated biphenyls | 0.055 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 12:34 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 86.7 | 50-125 | | 12/21/18 12:34 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-AE8-121318-41**
Sampled: 12/13/2018 08:25

**Sample ID: 18L0663-02**

Sample Matrix: Ground Water

Sample Flags: DL-01

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 40 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Acrylonitrile | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Benzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Bromobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Bromodichloromethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Bromoform | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Bromomethane | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 2-Butanone (MEK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| n-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| sec-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| tert-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Carbon Disulfide | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Chlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Chlorodibromomethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Chloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Chloroform | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Chloromethane | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 2-Chlorotoluene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 4-Chlorotoluene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Dibromomethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| trans-1,2-Dichloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,3-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Ethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Hexachlorobutadiene | ND | 1.2 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 2-Hexanone (MBK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-AE8-121318-41**
Sampled: 12/13/2018 08:25
**Sample ID: 18L0663-02**
Sample Matrix: Ground Water
Sample Flags: DL-01

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Methylene Chloride | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Naphthalene | ND | 10 | µg/L | 2 | V-05 | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| n-Propylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Styrene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Tetrachloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Tetrahydrofuran | ND | 20 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Toluene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2,3-Trichlorobenzene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2,4-Trichlorobenzene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Trichloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2,3-Trichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| Vinyl Chloride | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| m+p Xylene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |
| o-Xylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/20/18 5:45 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 97.8 | 70-130 | | 12/20/18 5:45 |
| Toluene-d8 | 101 | 70-130 | | 12/20/18 5:45 |
| 4-Bromofluorobenzene | 99.5 | 70-130 | | 12/20/18 5:45 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-AE8-121318-41**
Sampled: 12/13/2018 08:25

**Sample ID: 18L0663-02**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.29 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Fluoranthene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Fluorene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Naphthalene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Phenanthrene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |
| Pyrene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:17 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 71.2 | 30-130 | | 12/21/18 11:17 |
| 2-Fluorobiphenyl | 45.8 | 30-130 | | 12/21/18 11:17 |
| p-Terphenyl-d14 | 59.7 | 30-130 | | 12/21/18 11:17 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-AE8-121318-41**
Sampled: 12/13/2018 08:25
**Sample ID: 18L0663-02**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.085 | 0.074 | mg/L | 1 | | CTDEP ETPH | 12/18/18 | 12/20/18 18:25 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 83.1 | 50-150 | | 12/20/18 18:25 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-AE8-121318-41**
Sampled: 12/13/2018 08:25

**Sample ID: 18L0663-02**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Arsenic | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Barium | 110 | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/24/18 9:03 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 12:04 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:07 | MJH |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-P11-121318-1**
Sampled: 12/13/2018 09:45
**Sample ID: 18L0663-03**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Tetrachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:11 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 96.1 | 50-125 | | 12/21/18 13:11 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50

**Sample ID: 18L0663-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Dichlorobiphenyls | 0.0043 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Trichlorobiphenyls | 0.015 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Tetrachlorobiphenyls | 0.017 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Pentachlorobiphenyls | 0.0030 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |
| Total Polychlorinated biphenyls | 0.040 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 13:49 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 90.5 | 50-125 | | 12/21/18 13:49 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50

**Sample ID: 18L0663-04**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50
**Sample ID: 18L0663-04**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | V-05 | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:16 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 96.2 | 70-130 | | 12/20/18 6:16 |
| Toluene-d8 | 99.5 | 70-130 | | 12/20/18 6:16 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 12/20/18 6:16 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50

**Sample ID: 18L0663-04**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 11:45 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 67.2 | 30-130 | | 12/21/18 11:45 |
| 2-Fluorobiphenyl | 42.8 | 30-130 | | 12/21/18 11:45 |
| p-Terphenyl-d14 | 53.0 | 30-130 | | 12/21/18 11:45 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50
**Sample ID: 18L0663-04**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [2] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Aldrin [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| alpha-BHC [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| beta-BHC [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| delta-BHC [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| gamma-BHC (Lindane) [2] | ND | 0.029 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Chlordane [2] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| 4,4'-DDD [2] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| 4,4'-DDE [2] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| 4,4'-DDT [2] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Dieldrin [2] | ND | 0.0019 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Endosulfan I [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Endosulfan II [2] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Endosulfan sulfate [2] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Endrin [2] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Endrin aldehyde [2] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Endrin ketone [2] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Heptachlor [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Heptachlor epoxide [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Hexachlorobenzene [2] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Methoxychlor [2] | ND | 0.49 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |
| Toxaphene [2] | ND | 0.97 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 7:51 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 57.7 | 30-150 | | 12/22/18 7:51 |
| Decachlorobiphenyl [2] | 56.8 | 30-150 | | 12/22/18 7:51 |
| Tetrachloro-m-xylene [1] | 67.7 | 30-150 | | 12/22/18 7:51 |
| Tetrachloro-m-xylene [2] | 61.9 | 30-150 | | 12/22/18 7:51 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50
**Sample ID: 18L0663-04**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.11 | 0.074 | mg/L | 1 | | CTDEP ETPH | 12/18/18 | 12/20/18 18:43 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 83.2 | 50-150 | | 12/20/18 18:43 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-1**
Sampled: 12/13/2018 10:50

**Sample ID: 18L0663-04**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Arsenic | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Barium | 150 | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/24/18 9:07 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 12:05 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:11 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00

**Sample ID: 18L0663-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Dichlorobiphenyls | 0.0047 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Trichlorobiphenyls | 0.015 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Tetrachlorobiphenyls | 0.013 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |
| Total Polychlorinated biphenyls | 0.033 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 14:26 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 107 | 50-125 | | 12/21/18 14:26 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00

**Sample ID: 18L0663-05**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00

**Sample ID: 18L0663-05**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | V-05 | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/20/18 6:47 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 98.1 | 70-130 | | 12/20/18 6:47 |
| Toluene-d8 | 101 | 70-130 | | 12/20/18 6:47 |
| 4-Bromofluorobenzene | 100 | 70-130 | | 12/20/18 6:47 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00

**Sample ID: 18L0663-05**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.31 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Acenaphthylene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Anthracene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.52 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Chrysene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Fluoranthene (SIM) | ND | 0.52 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Phenanthrene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/19/18 | 12/21/18 12:14 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 66.0 | 30-130 | | 12/21/18 12:14 |
| 2-Fluorobiphenyl | 43.5 | 30-130 | | 12/21/18 12:14 |
| p-Terphenyl-d14 | 53.2 | 30-130 | | 12/21/18 12:14 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00

**Sample ID: 18L0663-05**

Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [2] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Aldrin [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| alpha-BHC [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| beta-BHC [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| delta-BHC [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| gamma-BHC (Lindane) [2] | ND | 0.030 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Chlordane [2] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| 4,4'-DDD [2] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| 4,4'-DDE [2] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| 4,4'-DDT [2] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Dieldrin [2] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Endosulfan I [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Endosulfan II [2] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Endosulfan sulfate [2] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Endrin [2] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Endrin aldehyde [2] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Endrin ketone [2] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Heptachlor [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Heptachlor epoxide [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Hexachlorobenzene [2] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Methoxychlor [2] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |
| Toxaphene [2] | ND | 1.0 | µg/L | 1 | | SW-846 8081B | 12/20/18 | 12/22/18 8:18 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 66.6 | 30-150 | | 12/22/18 8:18 |
| Decachlorobiphenyl [2] | 64.7 | 30-150 | | 12/22/18 8:18 |
| Tetrachloro-m-xylene [1] | 67.5 | 30-150 | | 12/22/18 8:18 |
| Tetrachloro-m-xylene [2] | 63.4 | 30-150 | | 12/22/18 8:18 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00
**Sample ID: 18L0663-05**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.10 | 0.075 | mg/L | 1 | | CTDEP ETPH | 12/18/18 | 12/20/18 19:00 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 87.3 | 50-150 | | 12/20/18 19:00 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-S15-121318-2**
Sampled: 12/13/2018 11:00
**Sample ID: 18L0663-05**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Arsenic | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Barium | 150 | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/24/18 9:10 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 12:07 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/19/18 | 12/21/18 13:14 | MJH |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-X17-121318-1**
Sampled: 12/13/2018 11:30
**Sample ID: 18L0663-06**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Trichlorobiphenyls | 0.0052 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Tetrachlorobiphenyls | 0.0097 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |
| Total Polychlorinated biphenyls | 0.015 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:04 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 98.7 | 50-125 | | 12/21/18 15:04 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: Trip Blank**
Sampled: 12/13/2018 00:00

**Sample ID: 18L0663-07**

Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Bromoform | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Bromomethane | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Chloroethane | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: Trip Blank**
Sampled: 12/13/2018 00:00
**Sample ID: 18L0663-07**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2,3-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/17/18 | 12/19/18 0:52 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 88.4 | 70-130 | | 12/19/18 0:52 |
| Toluene-d8 | 97.7 | 70-130 | | 12/19/18 0:52 |
| 4-Bromofluorobenzene | 96.1 | 70-130 | | 12/19/18 0:52 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-V18-121318-1**
Sampled: 12/13/2018 12:50

**Sample ID: 18L0663-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Dichlorobiphenyls | 0.015 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Trichlorobiphenyls | 0.038 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Tetrachlorobiphenyls | 0.024 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |
| Total Polychlorinated biphenyls | 0.077 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 15:41 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 97.9 | 50-125 | | 12/21/18 15:41 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-T23-121318-1**
Sampled: 12/13/2018 13:25

**Sample ID: 18L0663-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Dichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Trichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:19 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 106 | 50-125 | | 12/21/18 16:19 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18L0663

Date Received: 12/13/2018

**Field Sample #: MW-AA19-121318-1** | Sampled: 12/13/2018 13:40

**Sample ID: 18L0663-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 16:56 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 98.6 | 50-125 | | 12/21/18 16:56 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0663
Date Received: 12/13/2018
**Field Sample #: MW-AA12-121318-1**
Sampled: 12/13/2018 14:00
**Sample ID: 18L0663-11**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0079 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Dichlorobiphenyls | 0.42 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Trichlorobiphenyls | 0.39 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Tetrachlorobiphenyls | 0.10 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Pentachlorobiphenyls | 0.014 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | V-20 | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |
| Total Polychlorinated biphenyls | 0.94 | | µg/L | 1 | | EPA 680 Modified | 12/20/18 | 12/21/18 17:34 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 83.3 | 50-125 | | 12/21/18 17:34 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-01 [MW-P7-121318-1] | B219455 | 980 | 1.00 | 12/18/18 |
| 18L0663-02 [MW-AE8-121318-41] | B219455 | 1020 | 1.00 | 12/18/18 |
| 18L0663-04 [MW-S15-121318-1] | B219455 | 1020 | 1.00 | 12/18/18 |
| 18L0663-05 [MW-S15-121318-2] | B219455 | 1000 | 1.00 | 12/18/18 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-01 [MW-P7-121318-1] | B219667 | 990 | 1.00 | 12/20/18 |
| 18L0663-02 [MW-AE8-121318-41] | B219667 | 970 | 1.00 | 12/20/18 |
| 18L0663-03 [MW-P11-121318-1] | B219667 | 960 | 1.00 | 12/20/18 |
| 18L0663-04 [MW-S15-121318-1] | B219667 | 970 | 1.00 | 12/20/18 |
| 18L0663-05 [MW-S15-121318-2] | B219667 | 970 | 1.00 | 12/20/18 |
| 18L0663-06 [MW-X17-121318-1] | B219667 | 1000 | 1.00 | 12/20/18 |
| 18L0663-08 [MW-V18-121318-1] | B219667 | 1010 | 1.00 | 12/20/18 |
| 18L0663-09 [MW-T23-121318-1] | B219667 | 1040 | 1.00 | 12/20/18 |
| 18L0663-10 [MW-AA19-121318-1] | B219667 | 980 | 1.00 | 12/20/18 |
| 18L0663-11 [MW-AA12-121318-1] | B219667 | 980 | 1.00 | 12/20/18 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-01 [MW-P7-121318-1] | B219596 | 50.0 | 50.0 | 12/19/18 |
| 18L0663-02 [MW-AE8-121318-41] | B219596 | 50.0 | 50.0 | 12/19/18 |
| 18L0663-04 [MW-S15-121318-1] | B219596 | 50.0 | 50.0 | 12/19/18 |
| 18L0663-05 [MW-S15-121318-2] | B219596 | 50.0 | 50.0 | 12/19/18 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-01 [MW-P7-121318-1] | B219714 | 6.00 | 6.00 | 12/20/18 |
| 18L0663-02 [MW-AE8-121318-41] | B219714 | 6.00 | 6.00 | 12/20/18 |
| 18L0663-04 [MW-S15-121318-1] | B219714 | 6.00 | 6.00 | 12/20/18 |
| 18L0663-05 [MW-S15-121318-2] | B219714 | 6.00 | 6.00 | 12/20/18 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-04 [MW-S15-121318-1] | B219689 | 1030 | 10.0 | 12/20/18 |
| 18L0663-05 [MW-S15-121318-2] | B219689 | 1000 | 10.0 | 12/20/18 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-07 [Trip Blank] | B219350 | 5 | 5.00 | 12/17/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-01 [MW-P7-121318-1] | B219556 | 5 | 5.00 | 12/19/18 |
| 18L0663-02 [MW-AE8-121318-41] | B219556 | 2.5 | 5.00 | 12/19/18 |
| 18L0663-04 [MW-S15-121318-1] | B219556 | 5 | 5.00 | 12/19/18 |
| 18L0663-05 [MW-S15-121318-2] | B219556 | 5 | 5.00 | 12/19/18 |

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0663-01 [MW-P7-121318-1] | B219738 | 1000 | 1.00 | 12/19/18 |
| 18L0663-02 [MW-AE8-121318-41] | B219738 | 1020 | 1.00 | 12/19/18 |
| 18L0663-04 [MW-S15-121318-1] | B219738 | 1000 | 1.00 | 12/19/18 |
| 18L0663-05 [MW-S15-121318-2] | B219738 | 970 | 1.00 | 12/19/18 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219667 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219667-BLK1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | V-20 |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.192* | | µg/L | 0.200 | | 96.2 | 50-125 | | | |
| **LCS (B219667-BS1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Monochlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 96.1 | 40-140 | | | |
| Dichlorobiphenyls | 0.21 | 0.0010 | µg/L | 0.200 | | 105 | 40-140 | | | |
| Trichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 96.7 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.40 | 0.0020 | µg/L | 0.400 | | 99.1 | 40-140 | | | |
| Pentachlorobiphenyls | 0.42 | 0.0020 | µg/L | 0.400 | | 104 | 40-140 | | | |
| Hexachlorobiphenyls | 0.43 | 0.0020 | µg/L | 0.400 | | 109 | 40-140 | | | |
| Heptachlorobiphenyls | 0.63 | 0.0030 | µg/L | 0.600 | | 106 | 40-140 | | | |
| Octachlorobiphenyls | 0.66 | 0.0030 | µg/L | 0.600 | | 110 | 40-140 | | | |
| Nonachlorobiphenyls | 1.2 | 0.0050 | µg/L | 1.00 | | 119 | 40-140 | | | |
| Decachlorobiphenyl | 1.2 | 0.0050 | µg/L | 1.00 | | 122 | 40-140 | | | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.224* | | µg/L | 0.200 | | 112 | 50-125 | | | |
| **LCS Dup (B219667-BSD1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Monochlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 98.9 | 40-140 | 2.80 | 50 | |
| Dichlorobiphenyls | 0.22 | 0.0010 | µg/L | 0.200 | | 109 | 40-140 | 4.12 | 50 | |
| Trichlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 101 | 40-140 | 4.29 | 50 | |
| Tetrachlorobiphenyls | 0.41 | 0.0020 | µg/L | 0.400 | | 103 | 40-140 | 3.60 | 50 | |
| Pentachlorobiphenyls | 0.44 | 0.0020 | µg/L | 0.400 | | 109 | 40-140 | 4.31 | 50 | |
| Hexachlorobiphenyls | 0.43 | 0.0020 | µg/L | 0.400 | | 107 | 40-140 | 1.89 | 50 | |
| Heptachlorobiphenyls | 0.62 | 0.0030 | µg/L | 0.600 | | 104 | 40-140 | 1.78 | 50 | |
| Octachlorobiphenyls | 0.65 | 0.0030 | µg/L | 0.600 | | 108 | 40-140 | 2.01 | 50 | |
| Nonachlorobiphenyls | 1.2 | 0.0050 | µg/L | 1.00 | | 116 | 40-140 | 3.05 | 50 | |
| Decachlorobiphenyl | 1.2 | 0.0050 | µg/L | 1.00 | | 118 | 40-140 | 3.96 | 50 | V-06 |
| Surrogate: Tetrachloro-m-xylene | *0.227* | | µg/L | 0.200 | | 113 | 50-125 | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219350 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219350-BLK1)** | | | | Prepared: 12/17/18 Analyzed: 12/19/18 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219350 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219350-BLK1)** | | | | Prepared: 12/17/18 Analyzed: 12/19/18 | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *22.3* | | µg/L | 25.0 | | 89.3 | 70-130 | | | |
| Surrogate: Toluene-d8 | *24.2* | | µg/L | 25.0 | | 96.8 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *24.0* | | µg/L | 25.0 | | 95.9 | 70-130 | | | |
| **LCS (B219350-BS1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| Acetone | 99.1 | 10 | µg/L | 100 | | 99.1 | 70-130 | | | |
| Acrylonitrile | 8.85 | 2.0 | µg/L | 10.0 | | 88.5 | 70-130 | | | |
| Benzene | 9.56 | 0.50 | µg/L | 10.0 | | 95.6 | 70-130 | | | |
| Bromobenzene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| Bromodichloromethane | 9.87 | 0.50 | µg/L | 10.0 | | 98.7 | 70-130 | | | |
| Bromoform | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Bromomethane | 10.8 | 1.0 | µg/L | 10.0 | | 108 | 70-130 | | | V-20 |
| 2-Butanone (MEK) | 88.0 | 5.0 | µg/L | 100 | | 88.0 | 70-130 | | | |
| n-Butylbenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | 70-130 | | | |
| sec-Butylbenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | 70-130 | | | |
| tert-Butylbenzene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Carbon Disulfide | 11.5 | 5.0 | µg/L | 10.0 | | 115 | 70-130 | | | |
| Carbon Tetrachloride | 9.38 | 0.50 | µg/L | 10.0 | | 93.8 | 70-130 | | | |
| Chlorobenzene | 10.9 | 0.50 | µg/L | 10.0 | | 109 | 70-130 | | | |
| Chlorodibromomethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chloroform | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| Chloromethane | 8.93 | 0.60 | µg/L | 10.0 | | 89.3 | 70-130 | | | |
| 2-Chlorotoluene | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 4-Chlorotoluene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.27 | 0.50 | µg/L | 10.0 | | 92.7 | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Dibromomethane | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,3-Dichlorobenzene | 11.1 | 0.50 | µg/L | 10.0 | | 111 | 70-130 | | | |
| 1,4-Dichlorobenzene | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 10.2 | 2.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 9.52 | 0.50 | µg/L | 10.0 | | 95.2 | 70-130 | | | |
| 1,1-Dichloroethane | 9.96 | 0.50 | µg/L | 10.0 | | 99.6 | 70-130 | | | |
| 1,2-Dichloroethane | 9.27 | 0.50 | µg/L | 10.0 | | 92.7 | 70-130 | | | |
| 1,1-Dichloroethylene | 9.60 | 0.50 | µg/L | 10.0 | | 96.0 | 70-130 | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219350 - SW-846 5030B** | | | | | | | | | | |
| **LCS (B219350-BS1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| cis-1,2-Dichloroethylene | 9.51 | 0.50 | µg/L | 10.0 | | 95.1 | 70-130 | | | |
| trans-1,2-Dichloroethylene | 9.69 | 1.0 | µg/L | 10.0 | | 96.9 | 70-130 | | | |
| 1,2-Dichloropropane | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,3-Dichloropropane | 9.48 | 0.50 | µg/L | 10.0 | | 94.8 | 70-130 | | | |
| 2,2-Dichloropropane | 9.70 | 0.50 | µg/L | 10.0 | | 97.0 | 70-130 | | | |
| 1,1-Dichloropropene | 9.42 | 0.50 | µg/L | 10.0 | | 94.2 | 70-130 | | | |
| cis-1,3-Dichloropropene | 9.67 | 0.50 | µg/L | 10.0 | | 96.7 | 70-130 | | | |
| trans-1,3-Dichloropropene | 9.80 | 0.50 | µg/L | 10.0 | | 98.0 | 70-130 | | | |
| Ethylbenzene | 11.0 | 0.50 | µg/L | 10.0 | | 110 | 70-130 | | | |
| Hexachlorobutadiene | 12.2 | 0.60 | µg/L | 10.0 | | 122 | 70-130 | | | V-36 |
| 2-Hexanone (MBK) | 89.1 | 5.0 | µg/L | 100 | | 89.1 | 70-130 | | | |
| Isopropylbenzene (Cumene) | 11.1 | 0.50 | µg/L | 10.0 | | 111 | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 9.37 | 0.50 | µg/L | 10.0 | | 93.7 | 70-130 | | | |
| Methylene Chloride | 8.98 | 5.0 | µg/L | 10.0 | | 89.8 | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 90.1 | 5.0 | µg/L | 100 | | 90.1 | 70-130 | | | |
| Naphthalene | 8.85 | 2.0 | µg/L | 10.0 | | 88.5 | 70-130 | | | |
| n-Propylbenzene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Styrene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 11.4 | 0.50 | µg/L | 10.0 | | 114 | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| Tetrachloroethylene | 11.0 | 1.0 | µg/L | 10.0 | | 110 | 70-130 | | | |
| Tetrahydrofuran | 9.77 | 10 | µg/L | 10.0 | | 97.7 | 70-130 | | | |
| Toluene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,1,1-Trichloroethane | 9.81 | 0.50 | µg/L | 10.0 | | 98.1 | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Trichloroethylene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 9.14 | 2.0 | µg/L | 10.0 | | 91.4 | 70-130 | | | |
| 1,2,3-Trichloropropane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.85 | 0.50 | µg/L | 10.0 | | 98.5 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Vinyl Chloride | 9.45 | 1.0 | µg/L | 10.0 | | 94.5 | 70-130 | | | |
| m+p Xylene | 21.3 | 2.0 | µg/L | 20.0 | | 106 | 70-130 | | | |
| o-Xylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *21.8* | | µg/L | 25.0 | | 87.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | *24.7* | | µg/L | 25.0 | | 98.8 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *24.3* | | µg/L | 25.0 | | 97.2 | 70-130 | | | |
| **Batch B219556 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219556-BLK1)** | | | | Prepared: 12/19/18 Analyzed: 12/20/18 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219556 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219556-BLK1)** | | | | Prepared: 12/19/18 Analyzed: 12/20/18 | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | V-05 |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219556 - SW-846 5030B** | | | | | | | | | | | |
| **Blank (B219556-BLK1)** | | | | Prepared: 12/19/18 Analyzed: 12/20/18 | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *23.9* | | µg/L | 25.0 | | 95.7 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.5* | | µg/L | 25.0 | | 102 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *24.3* | | µg/L | 25.0 | | 97.3 | | 70-130 | | | |
| **LCS (B219556-BS1)** | | | | Prepared: 12/19/18 Analyzed: 12/20/18 | | | | | | | |
| Acetone | 128 | 10 | µg/L | 100 | | 128 | | 70-130 | | | V-36 |
| **Acrylonitrile** | 13.3 | 2.0 | µg/L | 10.0 | | **133** | * | 70-130 | | | L-01, V-20 |
| Benzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| Bromobenzene | 9.74 | 0.50 | µg/L | 10.0 | | 97.4 | | 70-130 | | | |
| Bromodichloromethane | 9.19 | 0.50 | µg/L | 10.0 | | 91.9 | | 70-130 | | | |
| Bromoform | 9.04 | 0.50 | µg/L | 10.0 | | 90.4 | | 70-130 | | | |
| Bromomethane | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| 2-Butanone (MEK) | 126 | 5.0 | µg/L | 100 | | 126 | | 70-130 | | | |
| n-Butylbenzene | 8.97 | 1.0 | µg/L | 10.0 | | 89.7 | | 70-130 | | | |
| sec-Butylbenzene | 9.20 | 1.0 | µg/L | 10.0 | | 92.0 | | 70-130 | | | |
| tert-Butylbenzene | 9.38 | 1.0 | µg/L | 10.0 | | 93.8 | | 70-130 | | | |
| Carbon Disulfide | 107 | 5.0 | µg/L | 100 | | 107 | | 70-130 | | | V-36 |
| Carbon Tetrachloride | 9.14 | 0.50 | µg/L | 10.0 | | 91.4 | | 70-130 | | | |
| Chlorobenzene | 10.7 | 0.50 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| Chlorodibromomethane | 9.48 | 0.50 | µg/L | 10.0 | | 94.8 | | 70-130 | | | |
| Chloroethane | 9.84 | 0.50 | µg/L | 10.0 | | 98.4 | | 70-130 | | | |
| Chloroform | 9.85 | 0.50 | µg/L | 10.0 | | 98.5 | | 70-130 | | | |
| **Chloromethane** | 14.2 | 0.60 | µg/L | 10.0 | | **142** | * | 70-130 | | | L-01, V-20 |
| 2-Chlorotoluene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| 4-Chlorotoluene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 7.95 | 0.50 | µg/L | 10.0 | | 79.5 | | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| Dibromomethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| 1,2-Dichlorobenzene | 9.90 | 0.50 | µg/L | 10.0 | | 99.0 | | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| 1,4-Dichlorobenzene | 9.80 | 0.50 | µg/L | 10.0 | | 98.0 | | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 9.97 | 2.0 | µg/L | 10.0 | | 99.7 | | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 9.56 | 0.50 | µg/L | 10.0 | | 95.6 | | 70-130 | | | |
| 1,1-Dichloroethane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 1,2-Dichloroethane | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 1,1-Dichloroethylene | 10.8 | 0.50 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| cis-1,2-Dichloroethylene | 10.9 | 0.50 | µg/L | 10.0 | | 109 | | 70-130 | | | |
| trans-1,2-Dichloroethylene | 11.5 | 1.0 | µg/L | 10.0 | | 115 | | 70-130 | | | |
| 1,2-Dichloropropane | 11.0 | 0.50 | µg/L | 10.0 | | 110 | | 70-130 | | | |
| 1,3-Dichloropropane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| 2,2-Dichloropropane | 7.38 | 0.50 | µg/L | 10.0 | | 73.8 | | 70-130 | | | |
| 1,1-Dichloropropene | 9.86 | 0.50 | µg/L | 10.0 | | 98.6 | | 70-130 | | | |
| cis-1,3-Dichloropropene | 9.34 | 0.50 | µg/L | 10.0 | | 93.4 | | 70-130 | | | |
| trans-1,3-Dichloropropene | 8.69 | 0.50 | µg/L | 10.0 | | 86.9 | | 70-130 | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219556 - SW-846 5030B** | | | | | | | | | | | |
| **LCS (B219556-BS1)** | | | | Prepared: 12/19/18 Analyzed: 12/20/18 | | | | | | | |
| Ethylbenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| Hexachlorobutadiene | 10.9 | 0.60 | µg/L | 10.0 | | 109 | | 70-130 | | | |
| 2-Hexanone (MBK) | 124 | 5.0 | µg/L | 100 | | 124 | | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 9.52 | 0.50 | µg/L | 10.0 | | 95.2 | | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 9.15 | 0.50 | µg/L | 10.0 | | 91.5 | | 70-130 | | | |
| **Methylene Chloride** | 13.1 | 5.0 | µg/L | 10.0 | | **131** | * | 70-130 | | | L-01, V-20 |
| 4-Methyl-2-pentanone (MIBK) | 126 | 5.0 | µg/L | 100 | | 126 | | 70-130 | | | |
| Naphthalene | 8.12 | 2.0 | µg/L | 10.0 | | 81.2 | | 70-130 | | | V-05 |
| n-Propylbenzene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| Styrene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 9.97 | 0.50 | µg/L | 10.0 | | 99.7 | | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 8.99 | 0.50 | µg/L | 10.0 | | 89.9 | | 70-130 | | | |
| Tetrachloroethylene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| Tetrahydrofuran | 12.4 | 10 | µg/L | 10.0 | | 124 | | 70-130 | | | |
| Toluene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 9.21 | 0.50 | µg/L | 10.0 | | 92.1 | | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 9.70 | 0.50 | µg/L | 10.0 | | 97.0 | | 70-130 | | | |
| 1,1,1-Trichloroethane | 9.13 | 0.50 | µg/L | 10.0 | | 91.3 | | 70-130 | | | |
| 1,1,2-Trichloroethane | 9.90 | 0.50 | µg/L | 10.0 | | 99.0 | | 70-130 | | | |
| Trichloroethylene | 11.6 | 1.0 | µg/L | 10.0 | | 116 | | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 9.74 | 2.0 | µg/L | 10.0 | | 97.4 | | 70-130 | | | |
| 1,2,3-Trichloropropane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.27 | 0.50 | µg/L | 10.0 | | 92.7 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| Vinyl Chloride | 11.2 | 1.0 | µg/L | 10.0 | | 112 | | 70-130 | | | |
| m+p Xylene | 20.2 | 2.0 | µg/L | 20.0 | | 101 | | 70-130 | | | |
| o-Xylene | 9.75 | 1.0 | µg/L | 10.0 | | 97.5 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *23.8* | | µg/L | 25.0 | | 95.4 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.6* | | µg/L | 25.0 | | 102 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.1* | | µg/L | 25.0 | | 100 | | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219738 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219738-BLK1)** | | | | Prepared: 12/19/18 Analyzed: 12/21/18 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *74.9* | | µg/L | 100 | | 74.9 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *47.5* | | µg/L | 100 | | 47.5 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *66.0* | | µg/L | 100 | | 66.0 | 30-130 | | | |
| **LCS (B219738-BS1)** | | | | Prepared: 12/19/18 Analyzed: 12/21/18 | | | | | | |
| Acenaphthene (SIM) | 32.2 | 7.5 | µg/L | 50.0 | | 64.3 | 40-140 | | | |
| Acenaphthylene (SIM) | 33.9 | 5.0 | µg/L | 50.0 | | 67.8 | 40-140 | | | |
| Anthracene (SIM) | 35.1 | 5.0 | µg/L | 50.0 | | 70.2 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 33.8 | 1.2 | µg/L | 50.0 | | 67.6 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 36.7 | 2.5 | µg/L | 50.0 | | 73.4 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 37.9 | 1.2 | µg/L | 50.0 | | 75.8 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 37.7 | 12 | µg/L | 50.0 | | 75.4 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 37.8 | 5.0 | µg/L | 50.0 | | 75.5 | 40-140 | | | |
| Chrysene (SIM) | 33.8 | 5.0 | µg/L | 50.0 | | 67.6 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 39.3 | 2.5 | µg/L | 50.0 | | 78.6 | 40-140 | | | |
| Fluoranthene (SIM) | 33.7 | 12 | µg/L | 50.0 | | 67.4 | 40-140 | | | |
| Fluorene (SIM) | 32.6 | 25 | µg/L | 50.0 | | 65.3 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 39.3 | 2.5 | µg/L | 50.0 | | 78.6 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 32.1 | 25 | µg/L | 50.0 | | 64.2 | 40-140 | | | |
| Naphthalene (SIM) | 29.2 | 25 | µg/L | 50.0 | | 58.4 | 40-140 | | | |
| Phenanthrene (SIM) | 34.4 | 1.2 | µg/L | 50.0 | | 68.8 | 40-140 | | | |
| Pyrene (SIM) | 35.7 | 25 | µg/L | 50.0 | | 71.4 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *64.3* | | µg/L | 100 | | 64.3 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *50.6* | | µg/L | 100 | | 50.6 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *58.6* | | µg/L | 100 | | 58.6 | 30-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219738 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219738-BSD1)** | | | | Prepared: 12/19/18 Analyzed: 12/21/18 | | | | | | |
| Acenaphthene (SIM) | 30.2 | 7.5 | µg/L | 50.0 | | 60.5 | 40-140 | 6.09 | 20 | |
| Acenaphthylene (SIM) | 31.4 | 5.0 | µg/L | 50.0 | | 62.8 | 40-140 | 7.65 | 20 | |
| Anthracene (SIM) | 33.0 | 5.0 | µg/L | 50.0 | | 65.9 | 40-140 | 6.39 | 20 | |
| Benzo(a)anthracene (SIM) | 32.0 | 1.2 | µg/L | 50.0 | | 64.0 | 40-140 | 5.55 | 20 | |
| Benzo(a)pyrene (SIM) | 34.4 | 2.5 | µg/L | 50.0 | | 68.7 | 40-140 | 6.68 | 20 | |
| Benzo(b)fluoranthene (SIM) | 35.4 | 1.2 | µg/L | 50.0 | | 70.7 | 40-140 | 6.90 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 35.8 | 12 | µg/L | 50.0 | | 71.6 | 40-140 | 5.17 | 20 | |
| Benzo(k)fluoranthene (SIM) | 35.4 | 5.0 | µg/L | 50.0 | | 70.7 | 40-140 | 6.57 | 20 | |
| Chrysene (SIM) | 31.9 | 5.0 | µg/L | 50.0 | | 63.8 | 40-140 | 5.71 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 36.8 | 2.5 | µg/L | 50.0 | | 73.6 | 40-140 | 6.51 | 20 | |
| Fluoranthene (SIM) | 31.8 | 12 | µg/L | 50.0 | | 63.5 | 40-140 | 6.03 | 20 | |
| Fluorene (SIM) | 30.7 | 25 | µg/L | 50.0 | | 61.4 | 40-140 | 6.07 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 37.1 | 2.5 | µg/L | 50.0 | | 74.2 | 40-140 | 5.89 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 30.2 | 25 | µg/L | 50.0 | | 60.4 | 40-140 | 6.10 | 20 | |
| Naphthalene (SIM) | 27.6 | 25 | µg/L | 50.0 | | 55.2 | 40-140 | 5.63 | 20 | |
| Phenanthrene (SIM) | 32.4 | 1.2 | µg/L | 50.0 | | 64.8 | 40-140 | 6.14 | 20 | |
| Pyrene (SIM) | 32.5 | 25 | µg/L | 50.0 | | 65.0 | 40-140 | 9.38 | 20 | |
| Surrogate: Nitrobenzene-d5 | *60.6* | | µg/L | 100 | | 60.6 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *47.2* | | µg/L | 100 | | 47.2 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *53.1* | | µg/L | 100 | | 53.1 | 30-130 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219689 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219689-BLK1)** | | | | Prepared: 12/20/18 Analyzed: 12/22/18 | | | | | | |
| alpha-Chlordane | ND | 0.010 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.010 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.010 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.010 | µg/L | | | | | | | |
| Alachlor | ND | 0.040 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.040 | µg/L | | | | | | | |
| Aldrin | ND | 0.010 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.010 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.010 | µg/L | | | | | | | |
| alpha-BHC [2C] | ND | 0.010 | µg/L | | | | | | | |
| beta-BHC | ND | 0.010 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.010 | µg/L | | | | | | | |
| delta-BHC | ND | 0.010 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.010 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.0060 | µg/L | | | | | | | |
| gamma-BHC (Lindane) [2C] | ND | 0.0060 | µg/L | | | | | | | |
| Chlordane | ND | 0.040 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Dieldrin | ND | 0.00040 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.00040 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.010 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.010 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.016 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.016 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endrin | ND | 0.016 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.016 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.016 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.016 | µg/L | | | | | | | |
| Heptachlor | ND | 0.010 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.010 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.010 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.010 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.010 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.010 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.10 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.10 | µg/L | | | | | | | |
| Toxaphene | ND | 0.20 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 0.20 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *0.369* | | µg/L | 0.400 | | 92.2 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *0.351* | | µg/L | 0.400 | | 87.6 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.347* | | µg/L | 0.400 | | 86.6 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *0.308* | | µg/L | 0.400 | | 77.1 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219689 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B219689-BS1)** | | | | Prepared: 12/20/18 Analyzed: 12/22/18 | | | | | | |
| alpha-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 96.6 | 0-200 | | | |
| gamma-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 0-200 | | | |
| gamma-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.1 | 0-200 | | | |
| Alachlor | 0.92 | 0.20 | µg/L | 1.00 | | 91.9 | 40-140 | | | |
| Alachlor [2C] | 0.90 | 0.20 | µg/L | 1.00 | | 89.5 | 40-140 | | | |
| Aldrin | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 40-140 | | | V-06 |
| Aldrin [2C] | 0.93 | 0.050 | µg/L | 1.00 | | 92.8 | 40-140 | | | |
| alpha-BHC | 0.83 | 0.050 | µg/L | 1.00 | | 83.2 | 40-140 | | | V-06 |
| alpha-BHC [2C] | 0.78 | 0.050 | µg/L | 1.00 | | 78.4 | 40-140 | | | |
| beta-BHC | 0.92 | 0.050 | µg/L | 1.00 | | 91.7 | 40-140 | | | |
| beta-BHC [2C] | 0.85 | 0.050 | µg/L | 1.00 | | 85.0 | 40-140 | | | |
| delta-BHC | 0.95 | 0.050 | µg/L | 1.00 | | 95.4 | 40-140 | | | |
| delta-BHC [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 85.7 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.90 | 0.030 | µg/L | 1.00 | | 89.5 | 40-140 | | | V-06 |
| gamma-BHC (Lindane) [2C] | 0.83 | 0.030 | µg/L | 1.00 | | 82.7 | 40-140 | | | |
| 4,4'-DDD | 1.1 | 0.040 | µg/L | 1.00 | | 108 | 40-140 | | | |
| 4,4'-DDD [2C] | 0.97 | 0.040 | µg/L | 1.00 | | 96.8 | 40-140 | | | |
| 4,4'-DDE | 1.1 | 0.040 | µg/L | 1.00 | | 111 | 40-140 | | | |
| 4,4'-DDE [2C] | 0.99 | 0.040 | µg/L | 1.00 | | 98.6 | 40-140 | | | |
| 4,4'-DDT | 1.1 | 0.040 | µg/L | 1.00 | | 110 | 40-140 | | | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Dieldrin | 1.1 | 0.0020 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Dieldrin [2C] | 0.93 | 0.0020 | µg/L | 1.00 | | 92.6 | 40-140 | | | |
| Endosulfan I | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Endosulfan I [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 95.0 | 40-140 | | | |
| Endosulfan II | 1.0 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Endosulfan II [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.0 | 40-140 | | | |
| Endosulfan Sulfate | 1.1 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.97 | 0.080 | µg/L | 1.00 | | 97.5 | 40-140 | | | |
| Endrin | 1.0 | 0.080 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Endrin [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 94.3 | 40-140 | | | |
| Endrin Aldehyde | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.93 | 0.080 | µg/L | 1.00 | | 93.4 | 40-140 | | | |
| Endrin Ketone | 1.1 | 0.080 | µg/L | 1.00 | | 109 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 104 | 40-140 | | | |
| Heptachlor | 0.96 | 0.050 | µg/L | 1.00 | | 96.1 | 40-140 | | | |
| Heptachlor [2C] | 0.88 | 0.050 | µg/L | 1.00 | | 88.0 | 40-140 | | | |
| Heptachlor Epoxide | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.93 | 0.050 | µg/L | 1.00 | | 92.8 | 40-140 | | | |
| Hexachlorobenzene | 0.93 | 0.050 | µg/L | 1.00 | | 93.0 | 40-140 | | | |
| Hexachlorobenzene [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 86.3 | 40-140 | | | |
| Methoxychlor | 1.1 | 0.50 | µg/L | 1.00 | | 114 | 40-140 | | | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | | 109 | 40-140 | | | |
| Surrogate: Decachlorobiphenyl | *1.85* | | µg/L | 2.00 | | 92.7 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.77* | | µg/L | 2.00 | | 88.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.51* | | µg/L | 2.00 | | 75.6 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.44* | | µg/L | 2.00 | | 71.9 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219689 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219689-BSD1)** | | | | Prepared: 12/20/18 Analyzed: 12/22/18 | | | | | | |
| alpha-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 0-200 | 0.0126 | | |
| alpha-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.0 | 0-200 | 0.426 | | |
| gamma-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 0-200 | 0.270 | | |
| gamma-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.2 | 0-200 | 0.145 | | |
| Alachlor | 0.92 | 0.20 | µg/L | 1.00 | | 92.2 | 40-140 | 0.406 | 20 | |
| Alachlor [2C] | 0.90 | 0.20 | µg/L | 1.00 | | 89.9 | 40-140 | 0.404 | 20 | |
| Aldrin | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | 1.74 | 20 | V-06 |
| Aldrin [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 91.7 | 40-140 | 1.12 | 20 | |
| alpha-BHC | 0.80 | 0.050 | µg/L | 1.00 | | 80.2 | 40-140 | 3.63 | 20 | V-06 |
| alpha-BHC [2C] | 0.76 | 0.050 | µg/L | 1.00 | | 76.3 | 40-140 | 2.67 | 20 | |
| beta-BHC | 0.89 | 0.050 | µg/L | 1.00 | | 89.4 | 40-140 | 2.51 | 20 | |
| beta-BHC [2C] | 0.84 | 0.050 | µg/L | 1.00 | | 83.8 | 40-140 | 1.43 | 20 | |
| delta-BHC | 0.92 | 0.050 | µg/L | 1.00 | | 91.6 | 40-140 | 4.07 | 20 | |
| delta-BHC [2C] | 0.84 | 0.050 | µg/L | 1.00 | | 84.4 | 40-140 | 1.57 | 20 | |
| gamma-BHC (Lindane) | 0.87 | 0.030 | µg/L | 1.00 | | 87.0 | 40-140 | 2.88 | 20 | V-06 |
| gamma-BHC (Lindane) [2C] | 0.81 | 0.030 | µg/L | 1.00 | | 81.0 | 40-140 | 1.98 | 20 | |
| 4,4'-DDD | 1.1 | 0.040 | µg/L | 1.00 | | 109 | 40-140 | 0.234 | 20 | |
| 4,4'-DDD [2C] | 0.98 | 0.040 | µg/L | 1.00 | | 97.5 | 40-140 | 0.713 | 20 | |
| 4,4'-DDE | 1.1 | 0.040 | µg/L | 1.00 | | 112 | 40-140 | 0.159 | 20 | |
| 4,4'-DDE [2C] | 0.99 | 0.040 | µg/L | 1.00 | | 99.1 | 40-140 | 0.561 | 20 | |
| 4,4'-DDT | 1.1 | 0.040 | µg/L | 1.00 | | 112 | 40-140 | 1.91 | 20 | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 102 | 40-140 | 1.42 | 20 | |
| Dieldrin | 1.1 | 0.0020 | µg/L | 1.00 | | 106 | 40-140 | 0.00473 | 20 | |
| Dieldrin [2C] | 0.93 | 0.0020 | µg/L | 1.00 | | 92.9 | 40-140 | 0.240 | 20 | |
| Endosulfan I | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | 0.475 | 20 | |
| Endosulfan I [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 95.0 | 40-140 | 0.0695 | 20 | |
| Endosulfan II | 1.0 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | 0.0983 | 20 | |
| Endosulfan II [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.1 | 40-140 | 0.176 | 20 | |
| Endosulfan Sulfate | 1.1 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | 0.0901 | 20 | |
| Endosulfan Sulfate [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.0 | 40-140 | 0.510 | 20 | |
| Endrin | 1.0 | 0.080 | µg/L | 1.00 | | 102 | 40-140 | 0.123 | 20 | |
| Endrin [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 94.4 | 40-140 | 0.0700 | 20 | |
| Endrin Aldehyde | 0.96 | 0.080 | µg/L | 1.00 | | 96.5 | 40-140 | 4.87 | 20 | |
| Endrin Aldehyde [2C] | 0.89 | 0.080 | µg/L | 1.00 | | 88.8 | 40-140 | 5.05 | 20 | |
| Endrin Ketone | 1.1 | 0.080 | µg/L | 1.00 | | 110 | 40-140 | 0.290 | 20 | |
| Endrin Ketone [2C] | 1.1 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | 0.596 | 20 | |
| Heptachlor | 0.94 | 0.050 | µg/L | 1.00 | | 93.7 | 40-140 | 2.60 | 20 | |
| Heptachlor [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 86.4 | 40-140 | 1.81 | 20 | |
| Heptachlor Epoxide | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | 0.540 | 20 | |
| Heptachlor Epoxide [2C] | 0.93 | 0.050 | µg/L | 1.00 | | 92.8 | 40-140 | 0.0550 | 20 | |
| Hexachlorobenzene | 0.88 | 0.050 | µg/L | 1.00 | | 88.1 | 40-140 | 5.50 | 20 | |
| Hexachlorobenzene [2C] | 0.83 | 0.050 | µg/L | 1.00 | | 82.9 | 40-140 | 4.02 | 20 | |
| Methoxychlor | 1.2 | 0.50 | µg/L | 1.00 | | 116 | 40-140 | 2.03 | 20 | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | | 112 | 40-140 | 2.20 | 20 | |
| Surrogate: Decachlorobiphenyl | *1.90* | | µg/L | 2.00 | | 94.8 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.81* | | µg/L | 2.00 | | 90.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.41* | | µg/L | 2.00 | | 70.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.36* | | µg/L | 2.00 | | 67.9 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219455 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219455-BLK1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| CT ETPH | ND | 0.075 | mg/L | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0940* | | mg/L | 0.100 | | 94.0 | 50-150 | | | |
| **LCS (B219455-BS1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| CT ETPH | 0.896 | 0.075 | mg/L | 1.00 | | 89.6 | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0897* | | mg/L | 0.100 | | 89.7 | 50-150 | | | |
| **LCS Dup (B219455-BSD1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| CT ETPH | 0.917 | 0.075 | mg/L | 1.00 | | 91.7 | 60-120 | 2.32 | 30 | |
| Surrogate: 2-Fluorobiphenyl | *0.0894* | | mg/L | 0.100 | | 89.4 | 50-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219596 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B219596-BLK1)** | | | | Prepared: 12/19/18 Analyzed: 12/21/18 | | | | | | |
| Antimony | ND | 5.0 | µg/L | | | | | | | |
| Arsenic | ND | 2.0 | µg/L | | | | | | | |
| Barium | ND | 50 | µg/L | | | | | | | |
| Beryllium | ND | 2.0 | µg/L | | | | | | | |
| Cadmium | ND | 2.5 | µg/L | | | | | | | |
| Chromium | ND | 5.0 | µg/L | | | | | | | |
| Copper | ND | 25 | µg/L | | | | | | | |
| Lead | ND | 5.0 | µg/L | | | | | | | |
| Nickel | ND | 25 | µg/L | | | | | | | |
| Selenium | ND | 25 | µg/L | | | | | | | |
| Silver | ND | 2.5 | µg/L | | | | | | | |
| Thallium | ND | 1.0 | µg/L | | | | | | | |
| Vanadium | ND | 25 | µg/L | | | | | | | |
| Zinc | ND | 50 | µg/L | | | | | | | |
| **LCS (B219596-BS1)** | | | | Prepared: 12/19/18 Analyzed: 12/21/18 | | | | | | |
| Antimony | 441 | 10 | µg/L | 500 | | 88.3 | 80-120 | | | |
| Arsenic | 454 | 4.0 | µg/L | 500 | | 90.8 | 80-120 | | | |
| Barium | 456 | 100 | µg/L | 500 | | 91.3 | 80-120 | | | |
| Beryllium | 497 | 4.0 | µg/L | 500 | | 99.4 | 80-120 | | | |
| Cadmium | 457 | 5.0 | µg/L | 500 | | 91.5 | 80-120 | | | |
| Chromium | 472 | 10 | µg/L | 500 | | 94.3 | 80-120 | | | |
| Copper | 903 | 50 | µg/L | 1000 | | 90.3 | 80-120 | | | |
| Lead | 432 | 10 | µg/L | 500 | | 86.4 | 80-120 | | | |
| Nickel | 460 | 50 | µg/L | 500 | | 91.9 | 80-120 | | | |
| Selenium | 457 | 50 | µg/L | 500 | | 91.3 | 80-120 | | | |
| Silver | 437 | 5.0 | µg/L | 500 | | 87.4 | 80-120 | | | |
| Thallium | 421 | 2.0 | µg/L | 500 | | 84.1 | 80-120 | | | |
| Vanadium | 469 | 50 | µg/L | 500 | | 93.8 | 80-120 | | | |
| Zinc | 919 | 100 | µg/L | 1000 | | 91.9 | 80-120 | | | |
| **LCS Dup (B219596-BSD1)** | | | | Prepared: 12/19/18 Analyzed: 12/21/18 | | | | | | |
| Antimony | 460 | 10 | µg/L | 500 | | 91.9 | 80-120 | 4.09 | 20 | |
| Arsenic | 465 | 4.0 | µg/L | 500 | | 93.0 | 80-120 | 2.40 | 20 | |
| Barium | 475 | 100 | µg/L | 500 | | 94.9 | 80-120 | 3.90 | 20 | |
| Beryllium | 488 | 4.0 | µg/L | 500 | | 97.7 | 80-120 | 1.77 | 20 | |
| Cadmium | 470 | 5.0 | µg/L | 500 | | 93.9 | 80-120 | 2.67 | 20 | |
| Chromium | 481 | 10 | µg/L | 500 | | 96.2 | 80-120 | 1.95 | 20 | |
| Copper | 930 | 50 | µg/L | 1000 | | 93.0 | 80-120 | 2.91 | 20 | |
| Lead | 463 | 10 | µg/L | 500 | | 92.5 | 80-120 | 6.86 | 20 | |
| Nickel | 472 | 50 | µg/L | 500 | | 94.3 | 80-120 | 2.57 | 20 | |
| Selenium | 465 | 50 | µg/L | 500 | | 93.1 | 80-120 | 1.94 | 20 | |
| Silver | 465 | 5.0 | µg/L | 500 | | 92.9 | 80-120 | 6.14 | 20 | |
| Thallium | 451 | 2.0 | µg/L | 500 | | 90.3 | 80-120 | 7.02 | 20 | |
| Vanadium | 480 | 50 | µg/L | 500 | | 96.0 | 80-120 | 2.30 | 20 | |
| Zinc | 942 | 100 | µg/L | 1000 | | 94.2 | 80-120 | 2.46 | 20 | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219714 - SW-846 7470A Prep** | | | | | | | | | | |
| **Blank (B219714-BLK1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | |
| **LCS (B219714-BS1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Mercury | 0.00204 | 0.00010 | mg/L | 0.00200 | | 102 | 80-120 | | | |
| **LCS Dup (B219714-BSD1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Mercury | 0.00201 | 0.00010 | mg/L | 0.00200 | | 100 | 80-120 | 1.70 | 20 | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

BREAKDOWN REPORT

**Lab Sample ID:** **S030593-PEM1** **Analyzed:** **12/21/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 5.22 |
| Endrin [1] | 5.10 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 6.56 |
| Endrin [2] | 5.06 |

BREAKDOWN REPORT

**Lab Sample ID:** **S030593-PEM2** **Analyzed:** **12/22/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 3.02 |
| Endrin [1] | 2.91 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 3.62 |
| Endrin [2] | 3.19 |

BREAKDOWN REPORT

**Lab Sample ID:** **S030593-PEM3** **Analyzed:** **12/22/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 3.58 |
| Endrin [1] | 3.79 |

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BREAKDOWN REPORT

**Lab Sample ID:** **S030593-PEM3** **Analyzed:** **12/22/2018**

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 4.23 |
| Endrin [2] | 4.25 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B219689-BS1 Date(s) Analyzed 12/22/2018 12/22/2018

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 7.446 | 7.416 | 7.476 | 1.1 | |
| | 2 | 7.407 | 7.377 | 7.437 | 0.97 | 12.6 |
| 4,4'-DDE | 1 | 6.995 | 6.964 | 7.024 | 1.1 | |
| | 2 | 6.972 | 6.942 | 7.002 | 0.99 | 10.5 |
| 4,4'-DDT | 1 | 7.662 | 7.632 | 7.692 | 1.1 | |
| | 2 | 7.650 | 7.620 | 7.680 | 1.0 | 9.5 |
| Alachlor | 1 | 6.416 | 6.386 | 6.446 | 0.92 | |
| | 2 | 6.137 | 6.108 | 6.168 | 0.90 | 2.2 |
| Aldrin | 1 | 6.321 | 6.291 | 6.351 | 1.0 | |
| | 2 | 6.206 | 6.177 | 6.237 | 0.93 | 7.3 |
| alpha-BHC | 1 | 5.582 | 5.552 | 5.612 | 0.83 | |
| | 2 | 5.485 | 5.455 | 5.515 | 0.78 | 6.2 |
| alpha-Chlordane | 1 | 6.941 | 6.911 | 6.971 | 1.0 | |
| | 2 | 6.843 | 6.814 | 6.874 | 0.97 | 3.1 |
| beta-BHC | 1 | 5.845 | 5.815 | 5.875 | 0.92 | |
| | 2 | 5.757 | 5.727 | 5.787 | 0.85 | 7.9 |
| delta-BHC | 1 | 5.966 | 5.937 | 5.997 | 0.95 | |
| | 2 | 5.946 | 5.916 | 5.976 | 0.86 | 9.9 |
| Dieldrin | 1 | 7.223 | 7.193 | 7.253 | 1.1 | |
| | 2 | 7.084 | 7.054 | 7.114 | 0.93 | 16.7 |
| Endosulfan I | 1 | 7.044 | 7.015 | 7.075 | 1.0 | |
| | 2 | 6.882 | 6.853 | 6.913 | 0.95 | 5.1 |
| Endosulfan II | 1 | 7.571 | 7.542 | 7.602 | 1.0 | |
| | 2 | 7.471 | 7.442 | 7.502 | 0.98 | 11.5 |
| Endosulfan Sulfate | 1 | 8.208 | 8.179 | 8.239 | 1.1 | |
| | 2 | 7.950 | 7.920 | 7.980 | 0.97 | 12.6 |
| Endrin | 1 | 7.400 | 7.370 | 7.430 | 1.0 | |
| | 2 | 7.309 | 7.280 | 7.340 | 0.94 | 6.2 |
| Endrin Aldehyde | 1 | 7.897 | 7.867 | 7.927 | 1.0 | |
| | 2 | 7.733 | 7.704 | 7.764 | 0.93 | 7.3 |
| Endrin Ketone | 1 | 8.391 | 8.362 | 8.422 | 1.1 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B219689-BS1 Date(s) Analyzed 12/22/2018 12/22/2018

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 8.317 | 8.287 | 8.347 | 1.0 | 9.5 |
| gamma-BHC (Lindane) | 1 | 5.790 | 5.760 | 5.820 | 0.90 | |
| | 2 | 5.705 | 5.674 | 5.734 | 0.83 | 8.1 |
| gamma-Chlordane | 1 | 6.844 | 6.814 | 6.874 | 1.0 | |
| | 2 | 6.738 | 6.707 | 6.767 | 0.97 | 3.1 |
| Heptachlor | 1 | 6.111 | 6.081 | 6.141 | 0.96 | |
| | 2 | 5.991 | 5.961 | 6.021 | 0.88 | 8.7 |
| Heptachlor Epoxide | 1 | 6.754 | 6.723 | 6.783 | 1.0 | |
| | 2 | 6.602 | 6.572 | 6.632 | 0.93 | 7.3 |
| Hexachlorobenzene | 1 | 5.472 | 5.442 | 5.502 | 0.93 | |
| | 2 | 5.400 | 5.370 | 5.430 | 0.86 | 7.8 |
| Methoxychlor | 1 | 8.034 | 8.004 | 8.064 | 1.1 | |
| | 2 | 8.173 | 8.143 | 8.203 | 1.1 | 0.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B219689-BSD1 Date(s) Analyzed 12/22/2018 12/22/2018

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 7.447 | 7.416 | 7.476 | 1.1 | |
| | 2 | 7.406 | 7.377 | 7.437 | 0.98 | 11.5 |
| 4,4'-DDE | 1 | 6.995 | 6.964 | 7.024 | 1.1 | |
| | 2 | 6.972 | 6.942 | 7.002 | 0.99 | 10.5 |
| 4,4'-DDT | 1 | 7.663 | 7.632 | 7.692 | 1.1 | |
| | 2 | 7.650 | 7.620 | 7.680 | 1.0 | 9.5 |
| Alachlor | 1 | 6.415 | 6.386 | 6.446 | 0.92 | |
| | 2 | 6.138 | 6.108 | 6.168 | 0.90 | 2.2 |
| Aldrin | 1 | 6.321 | 6.291 | 6.351 | 1.0 | |
| | 2 | 6.206 | 6.177 | 6.237 | 0.92 | 8.3 |
| alpha-BHC | 1 | 5.582 | 5.552 | 5.612 | 0.80 | |
| | 2 | 5.485 | 5.455 | 5.515 | 0.76 | 5.1 |
| alpha-Chlordane | 1 | 6.941 | 6.911 | 6.971 | 1.0 | |
| | 2 | 6.843 | 6.814 | 6.874 | 0.97 | 3.1 |
| beta-BHC | 1 | 5.845 | 5.815 | 5.875 | 0.89 | |
| | 2 | 5.756 | 5.727 | 5.787 | 0.84 | 5.8 |
| delta-BHC | 1 | 5.967 | 5.937 | 5.997 | 0.92 | |
| | 2 | 5.945 | 5.916 | 5.976 | 0.84 | 9.1 |
| Dieldrin | 1 | 7.224 | 7.193 | 7.253 | 1.1 | |
| | 2 | 7.084 | 7.054 | 7.114 | 0.93 | 16.7 |
| Endosulfan I | 1 | 7.045 | 7.015 | 7.075 | 1.0 | |
| | 2 | 6.882 | 6.853 | 6.913 | 0.95 | 5.1 |
| Endosulfan II | 1 | 7.572 | 7.542 | 7.602 | 1.0 | |
| | 2 | 7.471 | 7.442 | 7.502 | 0.98 | 11.5 |
| Endosulfan Sulfate | 1 | 8.209 | 8.179 | 8.239 | 1.1 | |
| | 2 | 7.950 | 7.920 | 7.980 | 0.98 | 11.5 |
| Endrin | 1 | 7.400 | 7.370 | 7.430 | 1.0 | |
| | 2 | 7.309 | 7.280 | 7.340 | 0.94 | 6.2 |
| Endrin Aldehyde | 1 | 7.897 | 7.867 | 7.927 | 0.96 | |
| | 2 | 7.733 | 7.704 | 7.764 | 0.89 | 8.6 |
| Endrin Ketone | 1 | 8.391 | 8.362 | 8.422 | 1.1 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B219689-BSD1 Date(s) Analyzed 12/22/2018 12/22/2018

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 8.317 | 8.287 | 8.347 | 1.1 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.790 | 5.760 | 5.820 | 0.87 | |
| | 2 | 5.704 | 5.674 | 5.734 | 0.81 | 7.1 |
| gamma-Chlordane | 1 | 6.844 | 6.814 | 6.874 | 1.0 | |
| | 2 | 6.737 | 6.707 | 6.767 | 0.97 | 3.1 |
| Heptachlor | 1 | 6.111 | 6.081 | 6.141 | 0.94 | |
| | 2 | 5.991 | 5.961 | 6.021 | 0.86 | 8.9 |
| Heptachlor Epoxide | 1 | 6.753 | 6.723 | 6.783 | 1.0 | |
| | 2 | 6.601 | 6.572 | 6.632 | 0.93 | 7.3 |
| Hexachlorobenzene | 1 | 5.472 | 5.442 | 5.502 | 0.88 | |
| | 2 | 5.400 | 5.370 | 5.430 | 0.83 | 5.9 |
| Methoxychlor | 1 | 8.034 | 8.004 | 8.064 | 1.2 | |
| | 2 | 8.173 | 8.143 | 8.203 | 1.1 | 8.7 |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| DL-01 | Elevated reporting limits for all volatile compounds due to foaming sample matrix. |
| L-01 | Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 7471B in Soil*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |
| 1,1-Dichloroethane | CT,NH,NY,ME |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB 18L0663

**con-test®** ANALYTICAL LABORATORY

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www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

Rev 04.05.12



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticides 8081 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 18 I A | 4 N P | 8 I A | 8 I A | 14 H V | 4 I A | | | | | |
| 01 | MW-P7-121318-1 | 12/13/18 | 0810 | | X | GW | U | X | X | X | X | X | | | | | | |
| 02 | MW-AE8-121318-1 | 12/13/18 | 0825 | | X | GW | U | X | X | X | X | X | | | | | | |
| 03 | MW-P11-121318-1 | 12/13/18 | 0945 | | X | GW | U | X | | | | | | | | | | |
| 04 | MW-S15-121318-1 | 12/13/18 | 1050 | | X | GW | U | X | X | X | X | X | X | | | | | |
| 05 | MW-S15-121318-2 | 12/13/18 | 1100 | | X | GW | U | X | X | X | X | X | X | | | | | |
| 06 | MW-X17-121318-1 | 12/13/18 | 1130 | | X | GW | U | X | | | | | | | | | | |
| 07 | Trip Blank | 12/13/18 | 1 AB | | | | | | | | | X | | | | | | |
| 08 | MW-V18-121318-1 | 12/13/18 | 1250 | | X | GW | U | X | | | | | | | | | | |
| 09 | MW-T23-121318-1 | 12/13/18 | 1325 | | X | GW | U | X | | | | | | | | | | |
| 10 | MW-AA19-121318-1 | 12/13/18 | 1340 | | X | GW | U | X | | | | | | | | | | |

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| | | |
|---|---|---|
| Relinquished by: (signature) John Mitt AECOM | Date/Time: 12/13/18 15:33 | |
| Received by: (signature) | Date/Time: 12/13/18 15:33 | |
| Relinquished by: (signature) 12/13/18 | Date/Time: 18:40 | |
| Received by: (signature) 12.13.18 4.5, 5.7, 3.2, 2.1 | Date/Time: 18:40 | |

**Turnaround ††**
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH †**
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

# of Containers
** Preservation
***Container Code

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

ALB 18L0663

# Con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

## CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



Rev 04.05.12

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | I | | | | |
| | | | | | | | | I | N | I | I | H |
| | | | | | | | | A | P | A | A | V |
| 11 | MW-AA12-121318-1 | 12/13/18 | 1400 | | X | GW | U | X | | | | |

# of Containers
** Preservation
***Container Code

ANALYSIS REQUESTED

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| John Crespo AECOM | 12/13/18 1:30 |
| Received by: (signature) | Date/Time: |
| [illegible] 12/13/18 | 1:30 |
| Relinquished by: (signature) | Date/Time: |
| [illegible] 12/13/18 | 18:40 |
| Received by: (signature) | Date/Time: |
| Paul [illegible] 12.13.18 | 18:40 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA-LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** PB Date 12.13.18 Time 18:40

How were the samples received? In Cooler T-4 No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 2 Actual Temp - 4.5, 5.7, 2.1, 3.2
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? F
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? T On COC? T
Do all samples have the proper pH? Acid T Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 39 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 14 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 4 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

Sample "MW-AA12-121318-1" Received with only 1 amber liter for PCB's

X:\HPCHEM\1\DATA\A122018.SEC\A1220043.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | A1220043.D |
| Data File Path | X:\HPCHEM\1\DATA\A122018.SEC\ |
| Operator | RMW |
| Date Acquired | 12/20/2018 5:14 |
| Acq. Method File | ETPH18.M |
| Sample Name | ETPH 1500 |
| Instrument Name | 5890DFID |

| Name | Ret Time | Target Response | Avg response | *%D+/-20 |
|---|---|---|---|---|
| c - 9 | 1.15 | 316897 | 337525 | 6 |
| c - 10 | 1.51 | 322797 | 337525 | 4 |
| c - 12 | 2.24 | 327067 | 337525 | 3 |
| c - 14 | 2.90 | 339942 | 337525 | -1 |
| c - 16 | 3.50 | 345572 | 337525 | -2 |
| c - 18 | 4.08 | 346400 | 337525 | -3 |
| c - 20 | 4.70 | 350186 | 337525 | -4 |
| c - 22 | 5.21 | 351781 | 337525 | -4 |
| c - 24 | 5.65 | 349279 | 337525 | -3 |
| c - 26 | 6.04 | 346969 | 337525 | -3 |
| c - 28 | 6.40 | 347297 | 337525 | -3 |
| c - 30 | 6.73 | 349370 | 337525 | -4 |
| c - 32 | 7.04 | 333561 | 337525 | 1 |
| c - 34 | 7.34 | 320957 | 337525 | 5 |
| c - 36 | 7.62 | 314793 | 337525 | 7 |

*One compound allowed %D </=50%

**Samples**

18L0663-01
18L0663-02
18L0663-04
18L0663-05
18L0794-01

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 18L0663

***Laboratory Sample ID(s):***
18L0663-01 thru 18L0663-11

***Sample Date(s):***
12/13/2018

*List RCP Methods Used:*

CTDEP ETPH, SW-846 6020B, SW-846 7470A, SW-846 7471B, SW-846 8081B, SW-846 8260C, SW-846 8270D

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Tod E. Kopyscinski

**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:** Tod Kopyscinski **Position:** **Laboratory Director**

**Printed Name:** **Tod E. Kopyscinski** **Date:** **12/24/18**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 19, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18L0420

Enclosed are results of analyses for samples received by the laboratory on December 10, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 7

18L0420-01 7

18L0420-02 14

18L0420-03 20

18L0420-04 22

18L0420-05 23

Sample Preparation Information 24

QC Data 25

PCB Homologues by GC/MS Water 25

B219310 25

Volatile Organic Compounds by GC/MS 27

B219111 27

Semivolatile Organic Compounds by GC/MS 33

B219390 33

Organochloride Pesticides by GC/ECD 36

B219187 36

Petroleum Hydrocarbons Analyses 41

B219339 41

Metals Analyses (Total) 42

B219164 42

B219281 43

Flag/Qualifier Summary 45

Certifications 46

# Table of Contents (continued)

Chain of Custody/Sample Receipt 50

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 12/19/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18L0420

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-28-121018-1 | 18L0420-01 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-35-121018-1 | 18L0420-02 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| Trip Blank | 18L0420-03 | Trip Blank Water | | SW-846 8260C | |
| MW-F35-121018-1 | 18L0420-04 | Ground Water | | SW-846 8081B | |
| MW-AP28-121018-1 | 18L0420-05 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270, only PAHs were requested and reported.

**SW-846 8260C**

**Qualifications:**

**DL-01**

Elevated reporting limits for all volatile compounds due to foaming sample matrix.

**Analyte & Samples(s) Qualified:**

18L0420-02[MW-35-121018-1]

**MS-12**

Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.

**Analyte & Samples(s) Qualified:**

**2-Hexanone (MBK)**
B219111-MS1, B219111-MSD1

**4-Methyl-2-pentanone (MIBK)**
B219111-MS1, B219111-MSD1

**Acetone**
B219111-MS1, B219111-MSD1

**Acrylonitrile**
B219111-MS1, B219111-MSD1

**Chloromethane**
B219111-MS1, B219111-MSD1

**Methylene Chloride**
B219111-MS1, B219111-MSD1

**Tetrahydrofuran**
B219111-MS1, B219111-MSD1

**MS-24**

Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.

**Analyte & Samples(s) Qualified:**

**trans-1,2-Dichloroethylene**
B219111-MSD1

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Chloromethane**
B219111-BS1

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**
B219111-BS1

**Carbon Disulfide**
B219111-BS1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420

Date Received: 12/10/2018

**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20

**Sample ID: 18L0420-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0011 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Dichlorobiphenyls | ND | 0.0011 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Trichlorobiphenyls | ND | 0.0011 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Tetrachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Pentachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Heptachlorobiphenyls | ND | 0.0032 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Octachlorobiphenyls | ND | 0.0032 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Nonachlorobiphenyls | ND | 0.0053 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Decachlorobiphenyl | ND | 0.0053 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:18 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 75.1 | 50-125 | | 12/17/18 23:18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420

Date Received: 12/10/2018

**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20

**Sample ID: 18L0420-01**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20
**Sample ID: 18L0420-01**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 23:31 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93.5 | 70-130 | | 12/14/18 23:31 |
| Toluene-d8 | 99.8 | 70-130 | | 12/14/18 23:31 |
| 4-Bromofluorobenzene | 98.7 | 70-130 | | 12/14/18 23:31 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20
**Sample ID: 18L0420-01**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.32 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Acenaphthylene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Anthracene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.053 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.11 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.053 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.53 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Chrysene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.11 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Fluoranthene (SIM) | ND | 0.53 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Fluorene (SIM) | ND | 1.1 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.11 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.1 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Naphthalene (SIM) | ND | 1.1 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Phenanthrene (SIM) | ND | 0.053 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |
| Pyrene (SIM) | ND | 1.1 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 8:52 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 78.0 | 30-130 | | 12/18/18 8:52 |
| 2-Fluorobiphenyl | 48.3 | 30-130 | | 12/18/18 8:52 |
| p-Terphenyl-d14 | 60.0 | 30-130 | | 12/18/18 8:52 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20
**Sample ID: 18L0420-01**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Aldrin [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| alpha-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| beta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| delta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| gamma-BHC (Lindane) [1] | ND | 0.029 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| 4,4'-DDD [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| 4,4'-DDE [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| 4,4'-DDT [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Endosulfan I [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Endosulfan II [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Endosulfan sulfate [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Endrin [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Endrin aldehyde [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Endrin ketone [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Heptachlor [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Heptachlor epoxide [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Hexachlorobenzene [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Methoxychlor [1] | ND | 0.49 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |
| Toxaphene [1] | ND | 0.98 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 2:42 | JMB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 92.6 | 30-150 | | 12/15/18 2:42 |
| Decachlorobiphenyl [2] | 89.9 | 30-150 | | 12/15/18 2:42 |
| Tetrachloro-m-xylene [1] | 86.9 | 30-150 | | 12/15/18 2:42 |
| Tetrachloro-m-xylene [2] | 87.2 | 30-150 | | 12/15/18 2:42 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20
**Sample ID: 18L0420-01**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.076 | 0.075 | mg/L | 1 | | CTDEP ETPH | 12/17/18 | 12/18/18 14:41 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 89.1 | 50-150 | | 12/18/18 14:41 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-28-121018-1**
Sampled: 12/10/2018 08:20
**Sample ID: 18L0420-01**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Arsenic | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Barium | 87 | 50 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/17/18 | 12/17/18 13:18 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:42 | MJH |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-35-121018-1**
Sampled: 12/10/2018 11:40
**Sample ID: 18L0420-02**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Dichlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Trichlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/17/18 23:56 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 63.9 | 50-125 | | 12/17/18 23:56 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420

Date Received: 12/10/2018

**Field Sample #: MW-35-121018-1**
Sampled: 12/10/2018 11:40

**Sample ID: 18L0420-02**

Sample Matrix: Ground Water

Sample Flags: DL-01

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 40 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Acrylonitrile | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Benzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Bromobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Bromodichloromethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Bromoform | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Bromomethane | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 2-Butanone (MEK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| n-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| sec-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| tert-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Carbon Disulfide | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Chlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Chlorodibromomethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Chloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Chloroform | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Chloromethane | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 2-Chlorotoluene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 4-Chlorotoluene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Dibromomethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| trans-1,2-Dichloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,3-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Ethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Hexachlorobutadiene | ND | 1.2 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 2-Hexanone (MBK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-35-121018-1**
Sampled: 12/10/2018 11:40
**Sample ID: 18L0420-02**
Sample Matrix: Ground Water
Sample Flags: DL-01

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Methylene Chloride | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Naphthalene | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| n-Propylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Styrene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Tetrachloroethylene | 2.4 | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Tetrahydrofuran | ND | 20 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Toluene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2,3-Trichlorobenzene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2,4-Trichlorobenzene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Trichloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2,3-Trichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| Vinyl Chloride | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| m+p Xylene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |
| o-Xylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/13/18 | 12/15/18 0:02 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93.4 | 70-130 | | 12/15/18 0:02 |
| Toluene-d8 | 99.0 | 70-130 | | 12/15/18 0:02 |
| 4-Bromofluorobenzene | 99.0 | 70-130 | | 12/15/18 0:02 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-35-121018-1**
Sampled: 12/10/2018 11:40
**Sample ID: 18L0420-02**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.29 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Acenaphthylene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Anthracene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.097 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Chrysene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.097 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Fluoranthene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Fluorene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.097 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Naphthalene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Phenanthrene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |
| Pyrene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 12/16/18 | 12/18/18 14:15 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 52.4 | 30-130 | | 12/18/18 14:15 |
| 2-Fluorobiphenyl | 34.2 | 30-130 | | 12/18/18 14:15 |
| p-Terphenyl-d14 | 51.3 | 30-130 | | 12/18/18 14:15 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-35-121018-1**
Sampled: 12/10/2018 11:40
**Sample ID: 18L0420-02**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.13 | 0.076 | mg/L | 1 | | CTDEP ETPH | 12/17/18 | 12/18/18 21:48 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 87.5 | 50-150 | | 12/18/18 21:48 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-35-121018-1**
Sampled: 12/10/2018 11:40
**Sample ID: 18L0420-02**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Arsenic | 8.7 | 2.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Barium | 80 | 50 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Chromium | 5.7 | 5.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Copper | 44 | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Lead | 22 | 5.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/17/18 | 12/17/18 13:38 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/13/18 | 12/14/18 14:45 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: Trip Blank**
Sampled: 12/10/2018 00:00
**Sample ID: 18L0420-03**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: Trip Blank**
Sampled: 12/10/2018 00:00
**Sample ID: 18L0420-03**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/13/18 | 12/14/18 18:55 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 94.6 | 70-130 | | 12/14/18 18:55 |
| Toluene-d8 | 100 | 70-130 | | 12/14/18 18:55 |
| 4-Bromofluorobenzene | 98.6 | 70-130 | | 12/14/18 18:55 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0420
Date Received: 12/10/2018
**Field Sample #: MW-F35-121018-1**
Sampled: 12/10/2018 13:05
**Sample ID: 18L0420-04**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Aldrin [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| alpha-BHC [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| beta-BHC [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| delta-BHC [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| 4,4'-DDE [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Endosulfan I [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Endosulfan II [1] | ND | 0.081 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Endosulfan sulfate [1] | ND | 0.081 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Endrin [1] | ND | 0.081 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Endrin aldehyde [1] | ND | 0.081 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Endrin ketone [1] | ND | 0.081 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Heptachlor [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Heptachlor epoxide [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Hexachlorobenzene [1] | ND | 0.051 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Methoxychlor [1] | ND | 0.51 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |
| Toxaphene [1] | ND | 1.0 | µg/L | 1 | | SW-846 8081B | 12/13/18 | 12/15/18 3:10 | JMB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 93.9 | 30-150 | | 12/15/18 3:10 |
| Decachlorobiphenyl [2] | 90.9 | 30-150 | | 12/15/18 3:10 |
| Tetrachloro-m-xylene [1] | 91.7 | 30-150 | | 12/15/18 3:10 |
| Tetrachloro-m-xylene [2] | 90.3 | 30-150 | | 12/15/18 3:10 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18L0420

Date Received: 12/10/2018

**Field Sample #: MW-AP28-121018-1** | Sampled: 12/10/2018 14:00

**Sample ID: 18L0420-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Dichlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Trichlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/15/18 | 12/18/18 0:33 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.4 | 50-125 | | 12/18/18 0:33 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219339 | 1000 | 1.00 | 12/17/18 |
| 18L0420-02 [MW-35-121018-1] | B219339 | 990 | 1.00 | 12/17/18 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219310 | 950 | 1.00 | 12/15/18 |
| 18L0420-02 [MW-35-121018-1] | B219310 | 1010 | 1.00 | 12/15/18 |
| 18L0420-05 [MW-AP28-121018-1] | B219310 | 1010 | 1.00 | 12/15/18 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219164 | 50.0 | 50.0 | 12/13/18 |
| 18L0420-02 [MW-35-121018-1] | B219164 | 50.0 | 50.0 | 12/13/18 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219281 | 6.00 | 6.00 | 12/17/18 |
| 18L0420-02 [MW-35-121018-1] | B219281 | 6.00 | 6.00 | 12/17/18 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219187 | 1020 | 10.0 | 12/13/18 |
| 18L0420-04 [MW-F35-121018-1] | B219187 | 990 | 10.0 | 12/13/18 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219111 | 5 | 5.00 | 12/13/18 |
| 18L0420-02 [MW-35-121018-1] | B219111 | 2.5 | 5.00 | 12/13/18 |
| 18L0420-03 [Trip Blank] | B219111 | 5 | 5.00 | 12/13/18 |

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0420-01 [MW-28-121018-1] | B219390 | 950 | 1.00 | 12/16/18 |
| 18L0420-02 [MW-35-121018-1] | B219390 | 1030 | 1.00 | 12/16/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219310 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219310-BLK1)** | | | | Prepared: 12/15/18 Analyzed: 12/17/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.177* | | µg/L | 0.200 | | 88.6 | 50-125 | | | |
| **LCS (B219310-BS1)** | | | | Prepared: 12/15/18 Analyzed: 12/17/18 | | | | | | |
| Monochlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 76.1 | 40-140 | | | |
| Dichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 96.2 | 40-140 | | | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 89.7 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.4 | 40-140 | | | |
| Pentachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 92.9 | 40-140 | | | |
| Hexachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 85.3 | 40-140 | | | |
| Heptachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 77.8 | 40-140 | | | |
| Octachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 76.7 | 40-140 | | | |
| Nonachlorobiphenyls | 0.73 | 0.0050 | µg/L | 1.00 | | 73.4 | 40-140 | | | |
| Decachlorobiphenyl | 0.63 | 0.0050 | µg/L | 1.00 | | 62.8 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.180* | | µg/L | 0.200 | | 90.2 | 50-125 | | | |
| **LCS Dup (B219310-BSD1)** | | | | Prepared: 12/15/18 Analyzed: 12/17/18 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 72.1 | 40-140 | 5.48 | 50 | |
| Dichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 93.2 | 40-140 | 3.19 | 50 | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 87.0 | 40-140 | 3.07 | 50 | |
| Tetrachlorobiphenyls | 0.36 | 0.0020 | µg/L | 0.400 | | 88.8 | 40-140 | 2.81 | 50 | |
| Pentachlorobiphenyls | 0.36 | 0.0020 | µg/L | 0.400 | | 89.7 | 40-140 | 3.48 | 50 | |
| Hexachlorobiphenyls | 0.36 | 0.0020 | µg/L | 0.400 | | 90.4 | 40-140 | 5.73 | 50 | |
| Heptachlorobiphenyls | 0.50 | 0.0030 | µg/L | 0.600 | | 82.5 | 40-140 | 5.83 | 50 | |
| Octachlorobiphenyls | 0.48 | 0.0030 | µg/L | 0.600 | | 79.8 | 40-140 | 3.96 | 50 | |
| Nonachlorobiphenyls | 0.76 | 0.0050 | µg/L | 1.00 | | 76.0 | 40-140 | 3.55 | 50 | |
| Decachlorobiphenyl | 0.65 | 0.0050 | µg/L | 1.00 | | 64.8 | 40-140 | 3.16 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.170* | | µg/L | 0.200 | | 84.9 | 50-125 | | | |
| **Matrix Spike (B219310-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/15/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | 0.123 | 0.00095 | µg/L | 0.190 | ND | 64.4 | 0-200 | | | |
| Dichlorobiphenyls | 0.162 | 0.00095 | µg/L | 0.190 | ND | 85.1 | 0-200 | | | |
| Trichlorobiphenyls | 0.152 | 0.00095 | µg/L | 0.190 | ND | 79.5 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.308 | 0.0019 | µg/L | 0.381 | ND | 81.0 | 0-200 | | | |
| Pentachlorobiphenyls | 0.307 | 0.0019 | µg/L | 0.381 | ND | 80.5 | 0-200 | | | |
| Hexachlorobiphenyls | 0.314 | 0.0019 | µg/L | 0.381 | ND | 82.5 | 0-200 | | | |
| Heptachlorobiphenyls | 0.418 | 0.0029 | µg/L | 0.571 | ND | 73.1 | 0-200 | | | |
| Octachlorobiphenyls | 0.411 | 0.0029 | µg/L | 0.571 | ND | 72.0 | 0-200 | | | |
| Nonachlorobiphenyls | 0.659 | 0.0048 | µg/L | 0.952 | ND | 69.2 | 0-200 | | | |
| Decachlorobiphenyl | 0.562 | 0.0048 | µg/L | 0.952 | ND | 59.0 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.145* | | µg/L | 0.190 | | 76.0 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219310 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B219310-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/15/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | 0.144 | 0.0010 | µg/L | 0.206 | ND | 69.6 | 0-200 | 15.7 | | |
| Dichlorobiphenyls | 0.188 | 0.0010 | µg/L | 0.206 | ND | 91.3 | 0-200 | 15.0 | | |
| Trichlorobiphenyls | 0.178 | 0.0010 | µg/L | 0.206 | ND | 86.4 | 0-200 | 16.2 | | |
| Tetrachlorobiphenyls | 0.362 | 0.0021 | µg/L | 0.412 | ND | 87.7 | 0-200 | 15.9 | | |
| Pentachlorobiphenyls | 0.361 | 0.0021 | µg/L | 0.412 | ND | 87.5 | 0-200 | 16.2 | | |
| Hexachlorobiphenyls | 0.349 | 0.0021 | µg/L | 0.412 | ND | 84.6 | 0-200 | 10.5 | | |
| Heptachlorobiphenyls | 0.470 | 0.0031 | µg/L | 0.619 | ND | 76.0 | 0-200 | 11.9 | | |
| Octachlorobiphenyls | 0.460 | 0.0031 | µg/L | 0.619 | ND | 74.3 | 0-200 | 11.1 | | |
| Nonachlorobiphenyls | 0.740 | 0.0052 | µg/L | 1.03 | ND | 71.8 | 0-200 | 11.7 | | |
| Decachlorobiphenyl | 0.638 | 0.0052 | µg/L | 1.03 | ND | 61.8 | 0-200 | 12.6 | | |
| Surrogate: Tetrachloro-m-xylene | *0.170* | | µg/L | 0.206 | | 82.6 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219111 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219111-BLK1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219111 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219111-BLK1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *23.5* | | µg/L | 25.0 | | 94.1 | 70-130 | | | |
| Surrogate: Toluene-d8 | *24.8* | | µg/L | 25.0 | | 99.1 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *24.7* | | µg/L | 25.0 | | 99.0 | 70-130 | | | |
| **LCS (B219111-BS1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Acetone | 117 | 10 | µg/L | 100 | | 117 | 70-130 | | | V-36 |
| Acrylonitrile | 12.5 | 2.0 | µg/L | 10.0 | | 125 | 70-130 | | | |
| Benzene | 9.47 | 0.50 | µg/L | 10.0 | | 94.7 | 70-130 | | | |
| Bromobenzene | 9.73 | 0.50 | µg/L | 10.0 | | 97.3 | 70-130 | | | |
| Bromodichloromethane | 9.00 | 0.50 | µg/L | 10.0 | | 90.0 | 70-130 | | | |
| Bromoform | 8.79 | 0.50 | µg/L | 10.0 | | 87.9 | 70-130 | | | |
| Bromomethane | 7.21 | 1.0 | µg/L | 10.0 | | 72.1 | 70-130 | | | |
| 2-Butanone (MEK) | 114 | 5.0 | µg/L | 100 | | 114 | 70-130 | | | |
| n-Butylbenzene | 9.09 | 1.0 | µg/L | 10.0 | | 90.9 | 70-130 | | | |
| sec-Butylbenzene | 9.41 | 1.0 | µg/L | 10.0 | | 94.1 | 70-130 | | | |
| tert-Butylbenzene | 9.29 | 1.0 | µg/L | 10.0 | | 92.9 | 70-130 | | | |
| Carbon Disulfide | 10.1 | 5.0 | µg/L | 10.0 | | 101 | 70-130 | | | V-36 |
| Carbon Tetrachloride | 8.49 | 0.50 | µg/L | 10.0 | | 84.9 | 70-130 | | | |
| Chlorobenzene | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Chlorodibromomethane | 9.36 | 0.50 | µg/L | 10.0 | | 93.6 | 70-130 | | | |
| Chloroethane | 9.63 | 0.50 | µg/L | 10.0 | | 96.3 | 70-130 | | | |
| Chloroform | 8.94 | 0.50 | µg/L | 10.0 | | 89.4 | 70-130 | | | |
| Chloromethane | 12.7 | 0.60 | µg/L | 10.0 | | 127 | 70-130 | | | V-20 |
| 2-Chlorotoluene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 4-Chlorotoluene | 9.90 | 0.50 | µg/L | 10.0 | | 99.0 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 8.44 | 0.50 | µg/L | 10.0 | | 84.4 | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 9.95 | 0.50 | µg/L | 10.0 | | 99.5 | 70-130 | | | |
| Dibromomethane | 9.65 | 0.50 | µg/L | 10.0 | | 96.5 | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| 1,4-Dichlorobenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 10.9 | 2.0 | µg/L | 10.0 | | 109 | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 8.28 | 0.50 | µg/L | 10.0 | | 82.8 | 70-130 | | | |
| 1,1-Dichloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| 1,2-Dichloroethane | 9.55 | 0.50 | µg/L | 10.0 | | 95.5 | 70-130 | | | |
| 1,1-Dichloroethylene | 9.82 | 0.50 | µg/L | 10.0 | | 98.2 | 70-130 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219111 - SW-846 5030B** | | | | | | | | | | | |
| **LCS (B219111-BS1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | | |
| cis-1,2-Dichloroethylene | 10.0 | 0.50 | µg/L | 10.0 | | 100 | | 70-130 | | | |
| trans-1,2-Dichloroethylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | | 70-130 | | | |
| 1,2-Dichloropropane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| 1,3-Dichloropropane | 9.63 | 0.50 | µg/L | 10.0 | | 96.3 | | 70-130 | | | |
| 2,2-Dichloropropane | 7.84 | 0.50 | µg/L | 10.0 | | 78.4 | | 70-130 | | | |
| 1,1-Dichloropropene | 8.99 | 0.50 | µg/L | 10.0 | | 89.9 | | 70-130 | | | |
| cis-1,3-Dichloropropene | 9.31 | 0.50 | µg/L | 10.0 | | 93.1 | | 70-130 | | | |
| trans-1,3-Dichloropropene | 9.21 | 0.50 | µg/L | 10.0 | | 92.1 | | 70-130 | | | |
| Ethylbenzene | 9.80 | 0.50 | µg/L | 10.0 | | 98.0 | | 70-130 | | | |
| Hexachlorobutadiene | 11.7 | 0.60 | µg/L | 10.0 | | 117 | | 70-130 | | | |
| 2-Hexanone (MBK) | 113 | 5.0 | µg/L | 100 | | 113 | | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 9.30 | 0.50 | µg/L | 10.0 | | 93.0 | | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 8.97 | 0.50 | µg/L | 10.0 | | 89.7 | | 70-130 | | | |
| Methylene Chloride | 12.1 | 5.0 | µg/L | 10.0 | | 121 | | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 115 | 5.0 | µg/L | 100 | | 115 | | 70-130 | | | |
| Naphthalene | 7.85 | 2.0 | µg/L | 10.0 | | 78.5 | | 70-130 | | | |
| n-Propylbenzene | 9.96 | 1.0 | µg/L | 10.0 | | 99.6 | | 70-130 | | | |
| Styrene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| Tetrachloroethylene | 10.0 | 1.0 | µg/L | 10.0 | | 100 | | 70-130 | | | |
| Tetrahydrofuran | 12.8 | 10 | µg/L | 10.0 | | 128 | | 70-130 | | | |
| Toluene | 9.71 | 1.0 | µg/L | 10.0 | | 97.1 | | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 9.47 | 0.50 | µg/L | 10.0 | | 94.7 | | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 9.49 | 0.50 | µg/L | 10.0 | | 94.9 | | 70-130 | | | |
| 1,1,1-Trichloroethane | 8.24 | 0.50 | µg/L | 10.0 | | 82.4 | | 70-130 | | | |
| 1,1,2-Trichloroethane | 9.57 | 0.50 | µg/L | 10.0 | | 95.7 | | 70-130 | | | |
| Trichloroethylene | 9.85 | 1.0 | µg/L | 10.0 | | 98.5 | | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 8.81 | 2.0 | µg/L | 10.0 | | 88.1 | | 70-130 | | | |
| 1,2,3-Trichloropropane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 8.79 | 0.50 | µg/L | 10.0 | | 87.9 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 9.82 | 0.50 | µg/L | 10.0 | | 98.2 | | 70-130 | | | |
| Vinyl Chloride | 9.74 | 1.0 | µg/L | 10.0 | | 97.4 | | 70-130 | | | |
| m+p Xylene | 19.8 | 2.0 | µg/L | 20.0 | | 98.8 | | 70-130 | | | |
| o-Xylene | 9.91 | 1.0 | µg/L | 10.0 | | 99.1 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *23.4* | | µg/L | 25.0 | | 93.4 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.5* | | µg/L | 25.0 | | 102 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.3* | | µg/L | 25.0 | | 101 | | 70-130 | | | |
| **Matrix Spike (B219111-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | | |
| **Acetone** | 132 | 10 | µg/L | 100 | ND | **132** | * | 70-130 | | | MS-12 |
| **Acrylonitrile** | 14.2 | 2.0 | µg/L | 10.0 | ND | **142** | * | 70-130 | | | MS-12 |
| Benzene | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | | 70-130 | | | |
| Bromobenzene | 11.1 | 0.50 | µg/L | 10.0 | ND | 111 | | 70-130 | | | |
| Bromodichloromethane | 10.3 | 0.50 | µg/L | 10.0 | ND | 103 | | 70-130 | | | |
| Bromoform | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | | 70-130 | | | |
| Bromomethane | 8.23 | 1.0 | µg/L | 10.0 | ND | 82.3 | | 70-130 | | | |
| 2-Butanone (MEK) | 129 | 5.0 | µg/L | 100 | ND | 129 | | 70-130 | | | |
| n-Butylbenzene | 10.9 | 1.0 | µg/L | 10.0 | ND | 109 | | 70-130 | | | |
| sec-Butylbenzene | 11.5 | 1.0 | µg/L | 10.0 | ND | 115 | | 70-130 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219111 - SW-846 5030B** | | | | | | | | | | | |
| **Matrix Spike (B219111-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | | |
| tert-Butylbenzene | 11.5 | 1.0 | µg/L | 10.0 | ND | 115 | | 70-130 | | | |
| Carbon Disulfide | 11.6 | 5.0 | µg/L | 10.0 | ND | 116 | | 70-130 | | | |
| Carbon Tetrachloride | 10.5 | 0.50 | µg/L | 10.0 | ND | 105 | | 70-130 | | | |
| Chlorobenzene | 12.4 | 0.50 | µg/L | 10.0 | ND | 124 | | 70-130 | | | |
| Chlorodibromomethane | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | | 70-130 | | | |
| Chloroethane | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | | | |
| Chloroform | 10.7 | 0.50 | µg/L | 10.0 | ND | 107 | | 70-130 | | | |
| **Chloromethane** | 14.7 | 0.60 | µg/L | 10.0 | ND | **147** | * | 70-130 | | | MS-12 |
| 2-Chlorotoluene | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | | 70-130 | | | |
| 4-Chlorotoluene | 11.6 | 0.50 | µg/L | 10.0 | ND | 116 | | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.87 | 0.50 | µg/L | 10.0 | ND | 98.7 | | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 11.1 | 0.50 | µg/L | 10.0 | ND | 111 | | 70-130 | | | |
| Dibromomethane | 11.2 | 0.50 | µg/L | 10.0 | ND | 112 | | 70-130 | | | |
| 1,2-Dichlorobenzene | 12.0 | 0.50 | µg/L | 10.0 | ND | 120 | | 70-130 | | | |
| 1,3-Dichlorobenzene | 12.1 | 0.50 | µg/L | 10.0 | ND | 121 | | 70-130 | | | |
| 1,4-Dichlorobenzene | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 11.8 | 2.0 | µg/L | 10.0 | ND | 118 | | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 8.84 | 0.50 | µg/L | 10.0 | ND | 88.4 | | 70-130 | | | |
| 1,1-Dichloroethane | 12.6 | 0.50 | µg/L | 10.0 | ND | 126 | | 70-130 | | | |
| 1,2-Dichloroethane | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | | | |
| 1,1-Dichloroethylene | 12.3 | 0.50 | µg/L | 10.0 | ND | 123 | | 70-130 | | | |
| cis-1,2-Dichloroethylene | 11.7 | 0.50 | µg/L | 10.0 | ND | 117 | | 70-130 | | | |
| trans-1,2-Dichloroethylene | 12.9 | 1.0 | µg/L | 10.0 | ND | 129 | | 70-130 | | | |
| 1,2-Dichloropropane | 12.6 | 0.50 | µg/L | 10.0 | ND | 126 | | 70-130 | | | |
| 1,3-Dichloropropane | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | | 70-130 | | | |
| 2,2-Dichloropropane | 7.42 | 0.50 | µg/L | 10.0 | ND | 74.2 | | 70-130 | | | |
| 1,1-Dichloropropene | 11.1 | 0.50 | µg/L | 10.0 | ND | 111 | | 70-130 | | | |
| cis-1,3-Dichloropropene | 10.2 | 0.50 | µg/L | 10.0 | ND | 102 | | 70-130 | | | |
| trans-1,3-Dichloropropene | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | | 70-130 | | | |
| Ethylbenzene | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | | | |
| Hexachlorobutadiene | 12.3 | 0.60 | µg/L | 10.0 | ND | 123 | | 70-130 | | | |
| **2-Hexanone (MBK)** | 135 | 5.0 | µg/L | 100 | ND | **135** | * | 70-130 | | | MS-12 |
| Isopropylbenzene (Cumene) | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 11.2 | 0.50 | µg/L | 10.0 | ND | 112 | | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | | 70-130 | | | |
| **Methylene Chloride** | 14.0 | 5.0 | µg/L | 10.0 | ND | **140** | * | 70-130 | | | MS-12 |
| **4-Methyl-2-pentanone (MIBK)** | 137 | 5.0 | µg/L | 100 | ND | **137** | * | 70-130 | | | MS-12 |
| Naphthalene | 11.6 | 2.0 | µg/L | 10.0 | 0.330 | 113 | | 70-130 | | | |
| n-Propylbenzene | 12.0 | 1.0 | µg/L | 10.0 | ND | 120 | | 70-130 | | | |
| Styrene | 11.7 | 1.0 | µg/L | 10.0 | ND | 117 | | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | | | |
| Tetrachloroethylene | 12.5 | 1.0 | µg/L | 10.0 | ND | 125 | | 70-130 | | | |
| **Tetrahydrofuran** | 13.6 | 10 | µg/L | 10.0 | ND | **136** | * | 70-130 | | | MS-12 |
| Toluene | 11.5 | 1.0 | µg/L | 10.0 | ND | 115 | | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 12.1 | 0.50 | µg/L | 10.0 | ND | 121 | | 70-130 | | | |
| 1,1,1-Trichloroethane | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | | | |
| Trichloroethylene | 11.8 | 1.0 | µg/L | 10.0 | ND | 118 | | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 10.4 | 2.0 | µg/L | 10.0 | ND | 104 | | 70-130 | | | |
| 1,2,3-Trichloropropane | 12.1 | 0.50 | µg/L | 10.0 | ND | 121 | | 70-130 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219111 - SW-846 5030B** | | | | | | | | | | | |
| **Matrix Spike (B219111-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 11.5 | 0.50 | µg/L | 10.0 | ND | 115 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 10.6 | 0.50 | µg/L | 10.0 | ND | 106 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 11.7 | 0.50 | µg/L | 10.0 | ND | 117 | | 70-130 | | | |
| Vinyl Chloride | 12.2 | 1.0 | µg/L | 10.0 | ND | 122 | | 70-130 | | | |
| m+p Xylene | 23.2 | 2.0 | µg/L | 20.0 | ND | 116 | | 70-130 | | | |
| o-Xylene | 12.0 | 1.0 | µg/L | 10.0 | ND | 120 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *23.0* | | µg/L | 25.0 | | 91.8 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.0* | | µg/L | 25.0 | | 100 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *24.6* | | µg/L | 25.0 | | 98.4 | | 70-130 | | | |
| **Matrix Spike Dup (B219111-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | | |
| **Acetone** | 133 | 10 | µg/L | 100 | ND | **133** | * | 70-130 | 0.856 | 30 | MS-12 |
| **Acrylonitrile** | 15.0 | 2.0 | µg/L | 10.0 | ND | **150** | * | 70-130 | 4.93 | 30 | MS-12 |
| Benzene | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | | 70-130 | 0.00 | 30 | |
| Bromobenzene | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | | 70-130 | 1.36 | 30 | |
| Bromodichloromethane | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | | 70-130 | 0.483 | 30 | |
| Bromoform | 10.2 | 0.50 | µg/L | 10.0 | ND | 102 | | 70-130 | 1.08 | 30 | |
| Bromomethane | 9.58 | 1.0 | µg/L | 10.0 | ND | 95.8 | | 70-130 | 15.2 | 30 | |
| 2-Butanone (MEK) | 130 | 5.0 | µg/L | 100 | ND | 130 | | 70-130 | 0.877 | 30 | |
| n-Butylbenzene | 10.7 | 1.0 | µg/L | 10.0 | ND | 107 | | 70-130 | 1.67 | 30 | |
| sec-Butylbenzene | 11.4 | 1.0 | µg/L | 10.0 | ND | 114 | | 70-130 | 0.962 | 30 | |
| tert-Butylbenzene | 11.4 | 1.0 | µg/L | 10.0 | ND | 114 | | 70-130 | 1.22 | 30 | |
| Carbon Disulfide | 12.0 | 5.0 | µg/L | 10.0 | ND | 120 | | 70-130 | 3.90 | 30 | |
| Carbon Tetrachloride | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | 3.64 | 30 | |
| Chlorobenzene | 12.7 | 0.50 | µg/L | 10.0 | ND | 127 | | 70-130 | 2.55 | 30 | |
| Chlorodibromomethane | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | | 70-130 | 0.00 | 30 | |
| Chloroethane | 12.1 | 0.50 | µg/L | 10.0 | ND | 121 | | 70-130 | 1.92 | 30 | |
| Chloroform | 10.7 | 0.50 | µg/L | 10.0 | ND | 107 | | 70-130 | 0.281 | 30 | |
| **Chloromethane** | 15.2 | 0.60 | µg/L | 10.0 | ND | **152** | * | 70-130 | 3.14 | 30 | MS-12 |
| 2-Chlorotoluene | 12.3 | 0.50 | µg/L | 10.0 | ND | 123 | | 70-130 | 3.97 | 30 | |
| 4-Chlorotoluene | 12.0 | 0.50 | µg/L | 10.0 | ND | 120 | | 70-130 | 2.88 | 30 | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.61 | 0.50 | µg/L | 10.0 | ND | 96.1 | | 70-130 | 2.67 | 30 | |
| 1,2-Dibromoethane (EDB) | 11.4 | 0.50 | µg/L | 10.0 | ND | 114 | | 70-130 | 2.94 | 30 | |
| Dibromomethane | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | | 70-130 | 5.32 | 30 | |
| 1,2-Dichlorobenzene | 12.0 | 0.50 | µg/L | 10.0 | ND | 120 | | 70-130 | 0.251 | 30 | |
| 1,3-Dichlorobenzene | 12.3 | 0.50 | µg/L | 10.0 | ND | 123 | | 70-130 | 1.56 | 30 | |
| 1,4-Dichlorobenzene | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | | 70-130 | 0.00 | 30 | |
| trans-1,4-Dichloro-2-butene | 11.7 | 2.0 | µg/L | 10.0 | ND | 117 | | 70-130 | 0.679 | 30 | |
| Dichlorodifluoromethane (Freon 12) | 9.41 | 0.50 | µg/L | 10.0 | ND | 94.1 | | 70-130 | 6.25 | 30 | |
| 1,1-Dichloroethane | 13.0 | 0.50 | µg/L | 10.0 | ND | 130 | | 70-130 | 3.44 | 30 | |
| 1,2-Dichloroethane | 11.2 | 0.50 | µg/L | 10.0 | ND | 112 | | 70-130 | 1.99 | 30 | |
| 1,1-Dichloroethylene | 12.5 | 0.50 | µg/L | 10.0 | ND | 125 | | 70-130 | 1.94 | 30 | |
| cis-1,2-Dichloroethylene | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | 1.44 | 30 | |
| **trans-1,2-Dichloroethylene** | 13.3 | 1.0 | µg/L | 10.0 | ND | **133** | * | 70-130 | 3.66 | 30 | MS-24 |
| 1,2-Dichloropropane | 12.5 | 0.50 | µg/L | 10.0 | ND | 125 | | 70-130 | 0.639 | 30 | |
| 1,3-Dichloropropane | 10.8 | 0.50 | µg/L | 10.0 | ND | 108 | | 70-130 | 2.30 | 30 | |
| 2,2-Dichloropropane | 7.58 | 0.50 | µg/L | 10.0 | ND | 75.8 | | 70-130 | 2.13 | 30 | |
| 1,1-Dichloropropene | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | | 70-130 | 1.27 | 30 | |
| cis-1,3-Dichloropropene | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | | 70-130 | 0.971 | 30 | |
| trans-1,3-Dichloropropene | 10.0 | 0.50 | µg/L | 10.0 | ND | 100 | | 70-130 | 1.19 | 30 | |
| Ethylbenzene | 12.1 | 0.50 | µg/L | 10.0 | ND | 121 | | 70-130 | 1.91 | 30 | |
| Hexachlorobutadiene | 12.8 | 0.60 | µg/L | 10.0 | ND | 128 | | 70-130 | 3.35 | 30 | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219111 - SW-846 5030B** | | | | | | | | | | | |
| **Matrix Spike Dup (B219111-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | | |
| **2-Hexanone (MBK)** | 134 | 5.0 | µg/L | 100 | ND | **134** | * | 70-130 | 0.559 | 30 | MS-12 |
| Isopropylbenzene (Cumene) | 12.3 | 0.50 | µg/L | 10.0 | ND | 123 | | 70-130 | 3.80 | 30 | |
| p-Isopropyltoluene (p-Cymene) | 11.1 | 0.50 | µg/L | 10.0 | ND | 111 | | 70-130 | 0.810 | 30 | |
| Methyl tert-Butyl Ether (MTBE) | 10.2 | 0.50 | µg/L | 10.0 | ND | 102 | | 70-130 | 1.26 | 30 | |
| **Methylene Chloride** | 14.2 | 5.0 | µg/L | 10.0 | ND | **142** | * | 70-130 | 1.21 | 30 | MS-12 |
| **4-Methyl-2-pentanone (MIBK)** | 136 | 5.0 | µg/L | 100 | ND | **136** | * | 70-130 | 0.712 | 30 | MS-12 |
| Naphthalene | 11.0 | 2.0 | µg/L | 10.0 | 0.330 | 107 | | 70-130 | 5.65 | 30 | |
| n-Propylbenzene | 12.0 | 1.0 | µg/L | 10.0 | ND | 120 | | 70-130 | 0.667 | 30 | |
| Styrene | 11.6 | 1.0 | µg/L | 10.0 | ND | 116 | | 70-130 | 0.172 | 30 | |
| 1,1,1,2-Tetrachloroethane | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | 1.18 | 30 | |
| 1,1,2,2-Tetrachloroethane | 12.2 | 0.50 | µg/L | 10.0 | ND | 122 | | 70-130 | 2.41 | 30 | |
| Tetrachloroethylene | 12.4 | 1.0 | µg/L | 10.0 | ND | 124 | | 70-130 | 0.481 | 30 | |
| **Tetrahydrofuran** | 14.1 | 10 | µg/L | 10.0 | ND | **141** | * | 70-130 | 3.60 | 30 | MS-12 |
| Toluene | 11.6 | 1.0 | µg/L | 10.0 | ND | 116 | | 70-130 | 0.777 | 30 | |
| 1,2,3-Trichlorobenzene | 12.0 | 0.50 | µg/L | 10.0 | ND | 120 | | 70-130 | 0.251 | 30 | |
| 1,2,4-Trichlorobenzene | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | | 70-130 | 2.35 | 30 | |
| 1,1,1-Trichloroethane | 10.2 | 0.50 | µg/L | 10.0 | ND | 102 | | 70-130 | 1.08 | 30 | |
| 1,1,2-Trichloroethane | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | 0.368 | 30 | |
| Trichloroethylene | 11.6 | 1.0 | µg/L | 10.0 | ND | 116 | | 70-130 | 2.06 | 30 | |
| Trichlorofluoromethane (Freon 11) | 11.0 | 2.0 | µg/L | 10.0 | ND | 110 | | 70-130 | 5.49 | 30 | |
| 1,2,3-Trichloropropane | 11.6 | 0.50 | µg/L | 10.0 | ND | 116 | | 70-130 | 4.14 | 30 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | | 70-130 | 1.40 | 30 | |
| 1,2,4-Trimethylbenzene | 10.8 | 0.50 | µg/L | 10.0 | ND | 108 | | 70-130 | 1.21 | 30 | |
| 1,3,5-Trimethylbenzene | 11.9 | 0.50 | µg/L | 10.0 | ND | 119 | | 70-130 | 1.61 | 30 | |
| Vinyl Chloride | 12.2 | 1.0 | µg/L | 10.0 | ND | 122 | | 70-130 | 0.246 | 30 | |
| m+p Xylene | 23.8 | 2.0 | µg/L | 20.0 | ND | 119 | | 70-130 | 2.64 | 30 | |
| o-Xylene | 12.0 | 1.0 | µg/L | 10.0 | ND | 120 | | 70-130 | 0.500 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | *23.3* | | µg/L | 25.0 | | 93.2 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.3* | | µg/L | 25.0 | | 101 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.4* | | µg/L | 25.0 | | 102 | | 70-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219390 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219390-BLK1)** | | | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *75.2* | | µg/L | 100 | | 75.2 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *48.7* | | µg/L | 100 | | 48.7 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *67.0* | | µg/L | 100 | | 67.0 | 30-130 | | | |
| **LCS (B219390-BS1)** | | | | Prepared: 12/16/18 Analyzed: 12/17/18 | | | | | | |
| Acenaphthene (SIM) | 38.8 | 7.5 | µg/L | 50.0 | | 77.7 | 40-140 | | | |
| Acenaphthylene (SIM) | 40.4 | 5.0 | µg/L | 50.0 | | 80.9 | 40-140 | | | |
| Anthracene (SIM) | 42.7 | 5.0 | µg/L | 50.0 | | 85.4 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 42.0 | 1.2 | µg/L | 50.0 | | 83.9 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 44.8 | 2.5 | µg/L | 50.0 | | 89.6 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 46.0 | 1.2 | µg/L | 50.0 | | 92.0 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 43.8 | 12 | µg/L | 50.0 | | 87.7 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 44.9 | 5.0 | µg/L | 50.0 | | 89.8 | 40-140 | | | |
| Chrysene (SIM) | 40.4 | 5.0 | µg/L | 50.0 | | 80.8 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 45.8 | 2.5 | µg/L | 50.0 | | 91.6 | 40-140 | | | |
| Fluoranthene (SIM) | 41.0 | 12 | µg/L | 50.0 | | 82.1 | 40-140 | | | |
| Fluorene (SIM) | 40.2 | 25 | µg/L | 50.0 | | 80.5 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 47.0 | 2.5 | µg/L | 50.0 | | 94.0 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 39.7 | 25 | µg/L | 50.0 | | 79.4 | 40-140 | | | |
| Naphthalene (SIM) | 35.2 | 25 | µg/L | 50.0 | | 70.4 | 40-140 | | | |
| Phenanthrene (SIM) | 40.8 | 1.2 | µg/L | 50.0 | | 81.5 | 40-140 | | | |
| Pyrene (SIM) | 40.8 | 25 | µg/L | 50.0 | | 81.7 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *77.0* | | µg/L | 100 | | 77.0 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *57.8* | | µg/L | 100 | | 57.8 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *65.1* | | µg/L | 100 | | 65.1 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219390 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219390-BSD1)** | | | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Acenaphthene (SIM) | 36.6 | 7.5 | µg/L | 50.0 | | 73.2 | 40-140 | 5.96 | 20 | |
| Acenaphthylene (SIM) | 38.7 | 5.0 | µg/L | 50.0 | | 77.4 | 40-140 | 4.36 | 20 | |
| Anthracene (SIM) | 40.7 | 5.0 | µg/L | 50.0 | | 81.4 | 40-140 | 4.80 | 20 | |
| Benzo(a)anthracene (SIM) | 39.2 | 1.2 | µg/L | 50.0 | | 78.5 | 40-140 | 6.65 | 20 | |
| Benzo(a)pyrene (SIM) | 41.8 | 2.5 | µg/L | 50.0 | | 83.6 | 40-140 | 6.92 | 20 | |
| Benzo(b)fluoranthene (SIM) | 42.9 | 1.2 | µg/L | 50.0 | | 85.8 | 40-140 | 6.86 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 40.5 | 12 | µg/L | 50.0 | | 81.0 | 40-140 | 7.88 | 20 | |
| Benzo(k)fluoranthene (SIM) | 41.5 | 5.0 | µg/L | 50.0 | | 83.0 | 40-140 | 7.93 | 20 | |
| Chrysene (SIM) | 38.1 | 5.0 | µg/L | 50.0 | | 76.2 | 40-140 | 5.80 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 42.4 | 2.5 | µg/L | 50.0 | | 84.9 | 40-140 | 7.59 | 20 | |
| Fluoranthene (SIM) | 40.1 | 12 | µg/L | 50.0 | | 80.2 | 40-140 | 2.40 | 20 | |
| Fluorene (SIM) | 37.7 | 25 | µg/L | 50.0 | | 75.4 | 40-140 | 6.54 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 43.7 | 2.5 | µg/L | 50.0 | | 87.4 | 40-140 | 7.33 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 36.7 | 25 | µg/L | 50.0 | | 73.4 | 40-140 | 7.85 | 20 | |
| Naphthalene (SIM) | 33.1 | 25 | µg/L | 50.0 | | 66.2 | 40-140 | 6.08 | 20 | |
| Phenanthrene (SIM) | 38.5 | 1.2 | µg/L | 50.0 | | 77.0 | 40-140 | 5.61 | 20 | |
| Pyrene (SIM) | 38.9 | 25 | µg/L | 50.0 | | 77.8 | 40-140 | 4.89 | 20 | |
| Surrogate: Nitrobenzene-d5 | *77.3* | | µg/L | 100 | | 77.3 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *55.5* | | µg/L | 100 | | 55.5 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *63.3* | | µg/L | 100 | | 63.3 | 30-130 | | | |
| **Matrix Spike (B219390-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Acenaphthene (SIM) | 35.9 | 7.7 | µg/L | 51.5 | ND | 69.6 | 40-140 | | | |
| Acenaphthylene (SIM) | 37.6 | 5.2 | µg/L | 51.5 | ND | 72.9 | 40-140 | | | |
| Anthracene (SIM) | 39.6 | 5.2 | µg/L | 51.5 | ND | 76.8 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 38.5 | 1.3 | µg/L | 51.5 | ND | 74.7 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 40.9 | 2.6 | µg/L | 51.5 | ND | 79.3 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 42.2 | 1.3 | µg/L | 51.5 | ND | 81.9 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 39.4 | 13 | µg/L | 51.5 | ND | 76.5 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 41.2 | 5.2 | µg/L | 51.5 | ND | 79.8 | 40-140 | | | |
| Chrysene (SIM) | 37.3 | 5.2 | µg/L | 51.5 | ND | 72.3 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 41.0 | 2.6 | µg/L | 51.5 | ND | 79.5 | 40-140 | | | |
| Fluoranthene (SIM) | 38.5 | 13 | µg/L | 51.5 | ND | 74.6 | 40-140 | | | |
| Fluorene (SIM) | 37.5 | 26 | µg/L | 51.5 | ND | 72.8 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 42.5 | 2.6 | µg/L | 51.5 | ND | 82.4 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 37.3 | 26 | µg/L | 51.5 | ND | 72.4 | 40-140 | | | |
| Naphthalene (SIM) | 33.9 | 26 | µg/L | 51.5 | ND | 65.8 | 40-140 | | | |
| Phenanthrene (SIM) | 37.4 | 1.3 | µg/L | 51.5 | ND | 72.6 | 40-140 | | | |
| Pyrene (SIM) | 38.6 | 26 | µg/L | 51.5 | ND | 74.9 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *78.4* | | µg/L | 103 | | 76.0 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *56.4* | | µg/L | 103 | | 54.7 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *57.3* | | µg/L | 103 | | 55.6 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219390 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B219390-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Acenaphthene (SIM) | 30.7 | 8.0 | µg/L | 53.2 | ND | 57.6 | 40-140 | 15.7 | 30 | |
| Acenaphthylene (SIM) | 31.8 | 5.3 | µg/L | 53.2 | ND | 59.8 | 40-140 | 16.7 | 30 | |
| Anthracene (SIM) | 33.6 | 5.3 | µg/L | 53.2 | ND | 63.2 | 40-140 | 16.3 | 30 | |
| Benzo(a)anthracene (SIM) | 32.6 | 1.3 | µg/L | 53.2 | ND | 61.3 | 40-140 | 16.6 | 30 | |
| Benzo(a)pyrene (SIM) | 34.4 | 2.7 | µg/L | 53.2 | ND | 64.7 | 40-140 | 17.2 | 30 | |
| Benzo(b)fluoranthene (SIM) | 35.5 | 1.3 | µg/L | 53.2 | ND | 66.8 | 40-140 | 17.3 | 30 | |
| Benzo(g,h,i)perylene (SIM) | 32.8 | 13 | µg/L | 53.2 | ND | 61.8 | 40-140 | 18.2 | 30 | |
| Benzo(k)fluoranthene (SIM) | 34.6 | 5.3 | µg/L | 53.2 | ND | 65.0 | 40-140 | 17.3 | 30 | |
| Chrysene (SIM) | 31.7 | 5.3 | µg/L | 53.2 | ND | 59.5 | 40-140 | 16.2 | 30 | |
| Dibenz(a,h)anthracene (SIM) | 33.8 | 2.7 | µg/L | 53.2 | ND | 63.5 | 40-140 | 19.2 | 30 | |
| Fluoranthene (SIM) | 32.9 | 13 | µg/L | 53.2 | ND | 61.8 | 40-140 | 15.7 | 30 | |
| Fluorene (SIM) | 32.2 | 27 | µg/L | 53.2 | ND | 60.5 | 40-140 | 15.4 | 30 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 35.1 | 2.7 | µg/L | 53.2 | ND | 66.0 | 40-140 | 19.1 | 30 | |
| 2-Methylnaphthalene (SIM) | 31.8 | 27 | µg/L | 53.2 | ND | 59.8 | 40-140 | 15.9 | 30 | |
| Naphthalene (SIM) | 28.6 | 27 | µg/L | 53.2 | ND | 53.8 | 40-140 | 16.9 | 30 | |
| Phenanthrene (SIM) | 31.7 | 1.3 | µg/L | 53.2 | ND | 59.6 | 40-140 | 16.5 | 30 | |
| Pyrene (SIM) | 32.3 | 27 | µg/L | 53.2 | ND | 60.8 | 40-140 | 17.7 | 30 | |
| Surrogate: Nitrobenzene-d5 | *63.4* | | µg/L | 106 | | 59.5 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *45.6* | | µg/L | 106 | | 42.8 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *47.9* | | µg/L | 106 | | 45.0 | 30-130 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219187 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219187-BLK1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| alpha-Chlordane | ND | 0.010 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.010 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.010 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.010 | µg/L | | | | | | | |
| Alachlor | ND | 0.040 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.040 | µg/L | | | | | | | |
| Aldrin | ND | 0.010 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.010 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.010 | µg/L | | | | | | | |
| alpha-BHC [2C] | ND | 0.010 | µg/L | | | | | | | |
| beta-BHC | ND | 0.010 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.010 | µg/L | | | | | | | |
| delta-BHC | ND | 0.010 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.010 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.0060 | µg/L | | | | | | | |
| gamma-BHC (Lindane) [2C] | ND | 0.0060 | µg/L | | | | | | | |
| Chlordane | ND | 0.040 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.0080 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Dieldrin | ND | 0.00040 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.00040 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.010 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.010 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.016 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.016 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endrin | ND | 0.016 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.016 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.016 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.016 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.016 | µg/L | | | | | | | |
| Heptachlor | ND | 0.010 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.010 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.010 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.010 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.010 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.010 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.10 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.10 | µg/L | | | | | | | |
| Toxaphene | ND | 0.20 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 0.20 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.74* | | µg/L | 2.00 | | 87.0 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.20* | | µg/L | 2.00 | | 59.9 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.42* | | µg/L | 2.00 | | 70.9 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *0.958* | | µg/L | 2.00 | | 47.9 | 30-150 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219187 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B219187-BS1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| alpha-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 104 | 0-200 | | | |
| alpha-Chlordane [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 0-200 | | | |
| gamma-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 0-200 | | | |
| gamma-Chlordane [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 105 | 0-200 | | | |
| Alachlor | 0.98 | 0.20 | µg/L | 1.00 | | 98.3 | 40-140 | | | |
| Alachlor [2C] | 0.95 | 0.20 | µg/L | 1.00 | | 95.4 | 40-140 | | | |
| Aldrin | 1.0 | 0.050 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Aldrin [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | | | |
| alpha-BHC | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 40-140 | | | |
| alpha-BHC [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| beta-BHC | 1.1 | 0.050 | µg/L | 1.00 | | 108 | 40-140 | | | |
| beta-BHC [2C] | 0.91 | 0.050 | µg/L | 1.00 | | 90.5 | 40-140 | | | |
| delta-BHC | 1.1 | 0.050 | µg/L | 1.00 | | 110 | 40-140 | | | |
| delta-BHC [2C] | 1.1 | 0.050 | µg/L | 1.00 | | 106 | 40-140 | | | |
| gamma-BHC (Lindane) | 1.1 | 0.030 | µg/L | 1.00 | | 106 | 40-140 | | | |
| gamma-BHC (Lindane) [2C] | 1.0 | 0.030 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDD | 1.1 | 0.040 | µg/L | 1.00 | | 109 | 40-140 | | | |
| 4,4'-DDD [2C] | 1.1 | 0.040 | µg/L | 1.00 | | 107 | 40-140 | | | |
| 4,4'-DDE | 1.1 | 0.040 | µg/L | 1.00 | | 111 | 40-140 | | | |
| 4,4'-DDE [2C] | 1.1 | 0.040 | µg/L | 1.00 | | 108 | 40-140 | | | |
| 4,4'-DDT | 1.1 | 0.040 | µg/L | 1.00 | | 108 | 40-140 | | | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 104 | 40-140 | | | |
| Dieldrin | 1.0 | 0.0020 | µg/L | 1.00 | | 104 | 40-140 | | | |
| Dieldrin [2C] | 1.0 | 0.0020 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Endosulfan I | 1.0 | 0.050 | µg/L | 1.00 | | 104 | 40-140 | | | |
| Endosulfan I [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Endosulfan II | 1.1 | 0.080 | µg/L | 1.00 | | 106 | 40-140 | | | |
| Endosulfan II [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Endosulfan Sulfate | 1.0 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Endrin | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Endrin [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 99.0 | 40-140 | | | |
| Endrin Aldehyde | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| Endrin Ketone | 1.1 | 0.080 | µg/L | 1.00 | | 110 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Heptachlor | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Heptachlor [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Heptachlor Epoxide | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 97.7 | 40-140 | | | |
| Hexachlorobenzene | 1.1 | 0.050 | µg/L | 1.00 | | 106 | 40-140 | | | |
| Hexachlorobenzene [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Methoxychlor | 1.0 | 0.50 | µg/L | 1.00 | | 104 | 40-140 | | | |
| Methoxychlor [2C] | 1.0 | 0.50 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Surrogate: Decachlorobiphenyl | *1.92* | | µg/L | 2.00 | | 96.1 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.87* | | µg/L | 2.00 | | 93.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.93* | | µg/L | 2.00 | | 96.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.88* | | µg/L | 2.00 | | 94.2 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219187 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219187-BSD1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| alpha-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 0-200 | 1.92 | | |
| alpha-Chlordane [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 99.8 | 0-200 | 1.94 | | |
| gamma-Chlordane | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 0-200 | 1.70 | | |
| gamma-Chlordane [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 0-200 | 1.99 | | |
| Alachlor | 0.98 | 0.20 | µg/L | 1.00 | | 97.6 | 40-140 | 0.696 | 20 | |
| Alachlor [2C] | 0.92 | 0.20 | µg/L | 1.00 | | 92.0 | 40-140 | 3.61 | 20 | |
| Aldrin | 1.0 | 0.050 | µg/L | 1.00 | | 105 | 40-140 | 0.287 | 20 | |
| Aldrin [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | 1.53 | 20 | |
| alpha-BHC | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | 0.812 | 20 | |
| alpha-BHC [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | 0.671 | 20 | |
| beta-BHC | 1.1 | 0.050 | µg/L | 1.00 | | 105 | 40-140 | 2.00 | 20 | |
| beta-BHC [2C] | 0.89 | 0.050 | µg/L | 1.00 | | 89.4 | 40-140 | 1.21 | 20 | |
| delta-BHC | 1.1 | 0.050 | µg/L | 1.00 | | 108 | 40-140 | 1.85 | 20 | |
| delta-BHC [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | 5.53 | 20 | |
| gamma-BHC (Lindane) | 1.1 | 0.030 | µg/L | 1.00 | | 105 | 40-140 | 0.896 | 20 | |
| gamma-BHC (Lindane) [2C] | 1.0 | 0.030 | µg/L | 1.00 | | 103 | 40-140 | 0.795 | 20 | |
| 4,4'-DDD | 1.1 | 0.040 | µg/L | 1.00 | | 107 | 40-140 | 2.58 | 20 | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 105 | 40-140 | 2.50 | 20 | |
| 4,4'-DDE | 1.1 | 0.040 | µg/L | 1.00 | | 108 | 40-140 | 2.09 | 20 | |
| 4,4'-DDE [2C] | 1.1 | 0.040 | µg/L | 1.00 | | 106 | 40-140 | 1.85 | 20 | |
| 4,4'-DDT | 1.0 | 0.040 | µg/L | 1.00 | | 104 | 40-140 | 3.64 | 20 | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 102 | 40-140 | 2.52 | 20 | |
| Dieldrin | 1.0 | 0.0020 | µg/L | 1.00 | | 102 | 40-140 | 2.03 | 20 | |
| Dieldrin [2C] | 0.98 | 0.0020 | µg/L | 1.00 | | 98.0 | 40-140 | 2.09 | 20 | |
| Endosulfan I | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | 1.92 | 20 | |
| Endosulfan I [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | 2.79 | 20 | |
| Endosulfan II | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | 2.72 | 20 | |
| Endosulfan II [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 99.9 | 40-140 | 2.65 | 20 | |
| Endosulfan Sulfate | 1.0 | 0.080 | µg/L | 1.00 | | 102 | 40-140 | 2.86 | 20 | |
| Endosulfan Sulfate [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.4 | 40-140 | 2.59 | 20 | |
| Endrin | 1.0 | 0.080 | µg/L | 1.00 | | 100 | 40-140 | 2.48 | 20 | |
| Endrin [2C] | 0.97 | 0.080 | µg/L | 1.00 | | 96.6 | 40-140 | 2.50 | 20 | |
| Endrin Aldehyde | 0.98 | 0.080 | µg/L | 1.00 | | 97.6 | 40-140 | 3.46 | 20 | |
| Endrin Aldehyde [2C] | 0.95 | 0.080 | µg/L | 1.00 | | 95.5 | 40-140 | 3.39 | 20 | |
| Endrin Ketone | 1.1 | 0.080 | µg/L | 1.00 | | 107 | 40-140 | 2.78 | 20 | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 102 | 40-140 | 2.44 | 20 | |
| Heptachlor | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | 1.17 | 20 | |
| Heptachlor [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.5 | 40-140 | 2.73 | 20 | |
| Heptachlor Epoxide | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 40-140 | 1.41 | 20 | |
| Heptachlor Epoxide [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 95.6 | 40-140 | 2.15 | 20 | |
| Hexachlorobenzene | 1.0 | 0.050 | µg/L | 1.00 | | 104 | 40-140 | 1.66 | 20 | |
| Hexachlorobenzene [2C] | 0.99 | 0.050 | µg/L | 1.00 | | 99.0 | 40-140 | 1.28 | 20 | |
| Methoxychlor | 1.0 | 0.50 | µg/L | 1.00 | | 101 | 40-140 | 2.90 | 20 | |
| Methoxychlor [2C] | 0.97 | 0.50 | µg/L | 1.00 | | 97.0 | 40-140 | 3.12 | 20 | |
| Surrogate: Decachlorobiphenyl | *1.90* | | µg/L | 2.00 | | 94.9 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.85* | | µg/L | 2.00 | | 92.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.86* | | µg/L | 2.00 | | 92.8 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.85* | | µg/L | 2.00 | | 92.7 | 30-150 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219187 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike (B219187-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | |
| Alachlor | 1.0 | 0.20 | µg/L | 1.02 | ND | 103 | 30-150 | | | |
| Alachlor [2C] | 0.96 | 0.20 | µg/L | 1.02 | ND | 94.3 | 30-150 | | | |
| Aldrin | 1.1 | 0.051 | µg/L | 1.02 | ND | 107 | 30-150 | | | |
| Aldrin [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 102 | 30-150 | | | |
| alpha-BHC | 1.1 | 0.051 | µg/L | 1.02 | ND | 104 | 30-150 | | | |
| alpha-BHC [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 102 | 30-150 | | | |
| beta-BHC | 1.1 | 0.051 | µg/L | 1.02 | ND | 109 | 30-150 | | | |
| beta-BHC [2C] | 0.99 | 0.051 | µg/L | 1.02 | ND | 96.7 | 30-150 | | | |
| delta-BHC | 1.1 | 0.051 | µg/L | 1.02 | ND | 109 | 30-150 | | | |
| delta-BHC [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 102 | 30-150 | | | |
| gamma-BHC (Lindane) | 1.1 | 0.031 | µg/L | 1.02 | ND | 107 | 30-150 | | | |
| gamma-BHC (Lindane) [2C] | 1.1 | 0.031 | µg/L | 1.02 | ND | 103 | 30-150 | | | |
| 4,4'-DDD | 1.1 | 0.041 | µg/L | 1.02 | ND | 106 | 30-150 | | | |
| 4,4'-DDD [2C] | 1.1 | 0.041 | µg/L | 1.02 | ND | 103 | 30-150 | | | |
| 4,4'-DDE | 1.1 | 0.041 | µg/L | 1.02 | ND | 108 | 30-150 | | | |
| 4,4'-DDE [2C] | 1.1 | 0.041 | µg/L | 1.02 | ND | 104 | 30-150 | | | |
| 4,4'-DDT | 1.1 | 0.041 | µg/L | 1.02 | ND | 107 | 30-150 | | | |
| 4,4'-DDT [2C] | 1.0 | 0.041 | µg/L | 1.02 | ND | 100 | 30-150 | | | |
| Dieldrin | 1.1 | 0.0020 | µg/L | 1.02 | ND | 104 | 30-150 | | | |
| Dieldrin [2C] | 1.0 | 0.0020 | µg/L | 1.02 | ND | 99.3 | 30-150 | | | |
| Endosulfan I | 1.0 | 0.051 | µg/L | 1.02 | ND | 100 | 30-150 | | | |
| Endosulfan I [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 102 | 30-150 | | | |
| Endosulfan II | 1.0 | 0.082 | µg/L | 1.02 | ND | 102 | 30-150 | | | |
| Endosulfan II [2C] | 1.0 | 0.082 | µg/L | 1.02 | ND | 98.3 | 30-150 | | | |
| Endosulfan Sulfate | 1.1 | 0.082 | µg/L | 1.02 | ND | 110 | 30-150 | | | |
| Endosulfan Sulfate [2C] | 1.0 | 0.082 | µg/L | 1.02 | ND | 98.2 | 30-150 | | | |
| Endrin | 1.1 | 0.082 | µg/L | 1.02 | ND | 104 | 30-150 | | | |
| Endrin [2C] | 1.0 | 0.082 | µg/L | 1.02 | ND | 101 | 30-150 | | | |
| Endrin Aldehyde | 1.0 | 0.082 | µg/L | 1.02 | ND | 101 | 30-150 | | | |
| Endrin Aldehyde [2C] | 0.99 | 0.082 | µg/L | 1.02 | ND | 96.6 | 30-150 | | | |
| Endrin Ketone | 1.1 | 0.082 | µg/L | 1.02 | ND | 108 | 30-150 | | | |
| Endrin Ketone [2C] | 1.1 | 0.082 | µg/L | 1.02 | ND | 104 | 30-150 | | | |
| Heptachlor | 1.1 | 0.051 | µg/L | 1.02 | ND | 104 | 30-150 | | | |
| Heptachlor [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 103 | 30-150 | | | |
| Heptachlor Epoxide | 1.1 | 0.051 | µg/L | 1.02 | ND | 103 | 30-150 | | | |
| Heptachlor Epoxide [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 100 | 30-150 | | | |
| Hexachlorobenzene | 1.3 | 0.051 | µg/L | 1.02 | ND | 130 | 30-150 | | | |
| Hexachlorobenzene [2C] | 1.0 | 0.051 | µg/L | 1.02 | ND | 98.5 | 30-150 | | | |
| Methoxychlor | 1.0 | 0.51 | µg/L | 1.02 | ND | 102 | 30-150 | | | |
| Methoxychlor [2C] | 1.1 | 0.51 | µg/L | 1.02 | ND | 109 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl | *1.95* | | µg/L | 2.04 | | 95.6 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.85* | | µg/L | 2.04 | | 90.8 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.90* | | µg/L | 2.04 | | 93.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.84* | | µg/L | 2.04 | | 90.2 | 30-150 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219187 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B219187-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/15/18 | | | | | | |
| Alachlor | 0.99 | 0.20 | µg/L | 1.00 | ND | 99.0 | 30-150 | 5.61 | 30 | |
| Alachlor [2C] | 0.93 | 0.20 | µg/L | 1.00 | ND | 92.7 | 30-150 | 3.74 | 30 | |
| Aldrin | 1.0 | 0.050 | µg/L | 1.00 | ND | 101 | 30-150 | 7.46 | 30 | |
| Aldrin [2C] | 0.97 | 0.050 | µg/L | 1.00 | ND | 97.0 | 30-150 | 6.93 | 30 | |
| alpha-BHC | 1.0 | 0.050 | µg/L | 1.00 | ND | 102 | 30-150 | 4.09 | 30 | |
| alpha-BHC [2C] | 0.98 | 0.050 | µg/L | 1.00 | ND | 98.1 | 30-150 | 5.90 | 30 | |
| beta-BHC | 1.1 | 0.050 | µg/L | 1.00 | ND | 106 | 30-150 | 5.01 | 30 | |
| beta-BHC [2C] | 0.94 | 0.050 | µg/L | 1.00 | ND | 93.7 | 30-150 | 5.16 | 30 | |
| delta-BHC | 1.1 | 0.050 | µg/L | 1.00 | ND | 108 | 30-150 | 3.21 | 30 | |
| delta-BHC [2C] | 1.0 | 0.050 | µg/L | 1.00 | ND | 100 | 30-150 | 4.08 | 30 | |
| gamma-BHC (Lindane) | 1.0 | 0.030 | µg/L | 1.00 | ND | 105 | 30-150 | 4.28 | 30 | |
| gamma-BHC (Lindane) [2C] | 1.0 | 0.030 | µg/L | 1.00 | ND | 100 | 30-150 | 5.23 | 30 | |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | ND | 103 | 30-150 | 4.70 | 30 | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | ND | 100 | 30-150 | 4.70 | 30 | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | ND | 104 | 30-150 | 5.60 | 30 | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | ND | 102 | 30-150 | 4.48 | 30 | |
| 4,4'-DDT | 1.0 | 0.040 | µg/L | 1.00 | ND | 102 | 30-150 | 6.59 | 30 | |
| 4,4'-DDT [2C] | 0.97 | 0.040 | µg/L | 1.00 | ND | 97.4 | 30-150 | 5.09 | 30 | |
| Dieldrin | 1.0 | 0.0020 | µg/L | 1.00 | ND | 101 | 30-150 | 5.00 | 30 | |
| Dieldrin [2C] | 0.96 | 0.0020 | µg/L | 1.00 | ND | 96.4 | 30-150 | 5.00 | 30 | |
| Endosulfan I | 0.97 | 0.050 | µg/L | 1.00 | ND | 96.8 | 30-150 | 5.41 | 30 | |
| Endosulfan I [2C] | 0.96 | 0.050 | µg/L | 1.00 | ND | 96.2 | 30-150 | 7.69 | 30 | |
| Endosulfan II | 0.99 | 0.080 | µg/L | 1.00 | ND | 98.7 | 30-150 | 5.12 | 30 | |
| Endosulfan II [2C] | 0.95 | 0.080 | µg/L | 1.00 | ND | 95.2 | 30-150 | 5.15 | 30 | |
| Endosulfan Sulfate | 1.1 | 0.080 | µg/L | 1.00 | ND | 106 | 30-150 | 5.45 | 30 | |
| Endosulfan Sulfate [2C] | 0.95 | 0.080 | µg/L | 1.00 | ND | 94.8 | 30-150 | 5.54 | 30 | |
| Endrin | 1.0 | 0.080 | µg/L | 1.00 | ND | 100 | 30-150 | 5.21 | 30 | |
| Endrin [2C] | 0.97 | 0.080 | µg/L | 1.00 | ND | 97.3 | 30-150 | 5.85 | 30 | |
| Endrin Aldehyde | 0.97 | 0.080 | µg/L | 1.00 | ND | 96.8 | 30-150 | 5.81 | 30 | |
| Endrin Aldehyde [2C] | 0.92 | 0.080 | µg/L | 1.00 | ND | 92.4 | 30-150 | 6.42 | 30 | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | ND | 104 | 30-150 | 5.56 | 30 | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | ND | 100 | 30-150 | 6.05 | 30 | |
| Heptachlor | 1.0 | 0.050 | µg/L | 1.00 | ND | 100 | 30-150 | 5.94 | 30 | |
| Heptachlor [2C] | 0.98 | 0.050 | µg/L | 1.00 | ND | 98.3 | 30-150 | 6.23 | 30 | |
| Heptachlor Epoxide | 1.0 | 0.050 | µg/L | 1.00 | ND | 100 | 30-150 | 5.16 | 30 | |
| Heptachlor Epoxide [2C] | 0.97 | 0.050 | µg/L | 1.00 | ND | 97.2 | 30-150 | 5.04 | 30 | |
| Hexachlorobenzene | 1.3 | 0.050 | µg/L | 1.00 | ND | 127 | 30-150 | 4.61 | 30 | |
| Hexachlorobenzene [2C] | 0.93 | 0.050 | µg/L | 1.00 | ND | 93.5 | 30-150 | 7.20 | 30 | |
| Methoxychlor | 1.0 | 0.50 | µg/L | 1.00 | ND | 100 | 30-150 | 4.29 | 30 | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | ND | 106 | 30-150 | 5.08 | 30 | |
| Surrogate: Decachlorobiphenyl | *1.88* | | µg/L | 2.00 | | 94.0 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.80* | | µg/L | 2.00 | | 90.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.77* | | µg/L | 2.00 | | 88.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.70* | | µg/L | 2.00 | | 84.8 | 30-150 | | | |

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**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219339 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219339-BLK1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | ND | 0.075 | mg/L | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0786* | | mg/L | 0.100 | | 78.6 | 50-150 | | | |
| **LCS (B219339-BS1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | 0.678 | 0.075 | mg/L | 1.00 | | 67.8 | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0803* | | mg/L | 0.100 | | 80.3 | 50-150 | | | |
| **LCS Dup (B219339-BSD1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | 0.687 | 0.075 | mg/L | 1.00 | | 68.7 | 60-120 | 1.38 | 30 | |
| Surrogate: 2-Fluorobiphenyl | *0.0790* | | mg/L | 0.100 | | 79.0 | 50-150 | | | |
| **Matrix Spike (B219339-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | 1.01 | 0.076 | mg/L | 1.01 | 0.0762 | 92.7 | 50-150 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0876* | | mg/L | 0.101 | | 86.7 | 50-150 | | | |
| **Matrix Spike Dup (B219339-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | 0.942 | 0.077 | mg/L | 1.02 | 0.0762 | 84.8 | 50-150 | 7.27 | 30 | |
| Surrogate: 2-Fluorobiphenyl | *0.0808* | | mg/L | 0.102 | | 79.2 | 50-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219164 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B219164-BLK1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Antimony | ND | 5.0 | µg/L | | | | | | | |
| Arsenic | ND | 2.0 | µg/L | | | | | | | |
| Barium | ND | 50 | µg/L | | | | | | | |
| Beryllium | ND | 2.0 | µg/L | | | | | | | |
| Cadmium | ND | 2.5 | µg/L | | | | | | | |
| Chromium | ND | 5.0 | µg/L | | | | | | | |
| Copper | ND | 25 | µg/L | | | | | | | |
| Lead | ND | 5.0 | µg/L | | | | | | | |
| Nickel | ND | 25 | µg/L | | | | | | | |
| Selenium | ND | 25 | µg/L | | | | | | | |
| Silver | ND | 2.5 | µg/L | | | | | | | |
| Thallium | ND | 1.0 | µg/L | | | | | | | |
| Vanadium | ND | 25 | µg/L | | | | | | | |
| Zinc | ND | 50 | µg/L | | | | | | | |
| **LCS (B219164-BS1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Antimony | 509 | 10 | µg/L | 500 | | 102 | 80-120 | | | |
| Arsenic | 507 | 4.0 | µg/L | 500 | | 101 | 80-120 | | | |
| Barium | 512 | 100 | µg/L | 500 | | 102 | 80-120 | | | |
| Beryllium | 496 | 4.0 | µg/L | 500 | | 99.2 | 80-120 | | | |
| Cadmium | 516 | 5.0 | µg/L | 500 | | 103 | 80-120 | | | |
| Chromium | 522 | 10 | µg/L | 500 | | 104 | 80-120 | | | |
| Copper | 1020 | 50 | µg/L | 1000 | | 102 | 80-120 | | | |
| Lead | 507 | 10 | µg/L | 500 | | 101 | 80-120 | | | |
| Nickel | 519 | 50 | µg/L | 500 | | 104 | 80-120 | | | |
| Selenium | 496 | 50 | µg/L | 500 | | 99.2 | 80-120 | | | |
| Silver | 505 | 5.0 | µg/L | 500 | | 101 | 80-120 | | | |
| Thallium | 502 | 2.0 | µg/L | 500 | | 100 | 80-120 | | | |
| Vanadium | 516 | 50 | µg/L | 500 | | 103 | 80-120 | | | |
| Zinc | 1020 | 100 | µg/L | 1000 | | 102 | 80-120 | | | |
| **LCS Dup (B219164-BSD1)** | | | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Antimony | 495 | 10 | µg/L | 500 | | 98.9 | 80-120 | 2.86 | 20 | |
| Arsenic | 498 | 4.0 | µg/L | 500 | | 99.6 | 80-120 | 1.79 | 20 | |
| Barium | 495 | 100 | µg/L | 500 | | 99.0 | 80-120 | 3.28 | 20 | |
| Beryllium | 481 | 4.0 | µg/L | 500 | | 96.1 | 80-120 | 3.16 | 20 | |
| Cadmium | 502 | 5.0 | µg/L | 500 | | 100 | 80-120 | 2.83 | 20 | |
| Chromium | 508 | 10 | µg/L | 500 | | 102 | 80-120 | 2.67 | 20 | |
| Copper | 993 | 50 | µg/L | 1000 | | 99.3 | 80-120 | 2.39 | 20 | |
| Lead | 495 | 10 | µg/L | 500 | | 98.9 | 80-120 | 2.45 | 20 | |
| Nickel | 506 | 50 | µg/L | 500 | | 101 | 80-120 | 2.67 | 20 | |
| Selenium | 490 | 50 | µg/L | 500 | | 98.0 | 80-120 | 1.29 | 20 | |
| Silver | 492 | 5.0 | µg/L | 500 | | 98.5 | 80-120 | 2.60 | 20 | |
| Thallium | 492 | 2.0 | µg/L | 500 | | 98.5 | 80-120 | 1.95 | 20 | |
| Vanadium | 503 | 50 | µg/L | 500 | | 101 | 80-120 | 2.50 | 20 | |
| Zinc | 998 | 100 | µg/L | 1000 | | 99.8 | 80-120 | 2.61 | 20 | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219164 - SW-846 3005A** | | | | | | | | | | |
| **Matrix Spike (B219164-MS1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Antimony | 498 | 10 | µg/L | 500 | ND | 99.6 | 75-125 | | | |
| Arsenic | 495 | 4.0 | µg/L | 500 | ND | 99.0 | 75-125 | | | |
| Barium | 588 | 100 | µg/L | 500 | 87.1 | 100 | 75-125 | | | |
| Beryllium | 469 | 4.0 | µg/L | 500 | ND | 93.9 | 75-125 | | | |
| Cadmium | 504 | 5.0 | µg/L | 500 | ND | 101 | 75-125 | | | |
| Chromium | 512 | 10 | µg/L | 500 | ND | 102 | 75-125 | | | |
| Copper | 986 | 50 | µg/L | 1000 | ND | 98.6 | 75-125 | | | |
| Lead | 494 | 10 | µg/L | 500 | ND | 98.8 | 75-125 | | | |
| Nickel | 505 | 50 | µg/L | 500 | ND | 101 | 75-125 | | | |
| Selenium | 487 | 50 | µg/L | 500 | ND | 97.4 | 75-125 | | | |
| Silver | 410 | 5.0 | µg/L | 500 | ND | 82.0 | 75-125 | | | |
| Thallium | 495 | 2.0 | µg/L | 500 | ND | 99.0 | 75-125 | | | |
| Vanadium | 512 | 50 | µg/L | 500 | ND | 102 | 75-125 | | | |
| Zinc | 1000 | 100 | µg/L | 1000 | ND | 100 | 75-125 | | | |
| **Matrix Spike Dup (B219164-MSD1)** | | **Source: 18L0420-01** | | Prepared: 12/13/18 Analyzed: 12/14/18 | | | | | | |
| Antimony | 502 | 10 | µg/L | 500 | ND | 100 | 75-125 | 0.743 | 20 | |
| Arsenic | 501 | 4.0 | µg/L | 500 | ND | 100 | 75-125 | 1.32 | 20 | |
| Barium | 584 | 100 | µg/L | 500 | 87.1 | 99.4 | 75-125 | 0.687 | 20 | |
| Beryllium | 477 | 4.0 | µg/L | 500 | ND | 95.3 | 75-125 | 1.54 | 20 | |
| Cadmium | 506 | 5.0 | µg/L | 500 | ND | 101 | 75-125 | 0.483 | 20 | |
| Chromium | 516 | 10 | µg/L | 500 | ND | 103 | 75-125 | 0.851 | 20 | |
| Copper | 998 | 50 | µg/L | 1000 | ND | 99.8 | 75-125 | 1.17 | 20 | |
| Lead | 507 | 10 | µg/L | 500 | ND | 101 | 75-125 | 2.55 | 20 | |
| Nickel | 513 | 50 | µg/L | 500 | ND | 103 | 75-125 | 1.57 | 20 | |
| Selenium | 500 | 50 | µg/L | 500 | ND | 100 | 75-125 | 2.60 | 20 | |
| Silver | 433 | 5.0 | µg/L | 500 | ND | 86.5 | 75-125 | 5.38 | 20 | |
| Thallium | 510 | 2.0 | µg/L | 500 | ND | 102 | 75-125 | 2.98 | 20 | |
| Vanadium | 518 | 50 | µg/L | 500 | ND | 104 | 75-125 | 1.17 | 20 | |
| Zinc | 1010 | 100 | µg/L | 1000 | ND | 101 | 75-125 | 1.05 | 20 | |
| **Batch B219281 - SW-846 7470A Prep** | | | | | | | | | | |
| **Blank (B219281-BLK1)** | | | | Prepared & Analyzed: 12/17/18 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | |
| **LCS (B219281-BS1)** | | | | Prepared & Analyzed: 12/17/18 | | | | | | |
| Mercury | 0.00183 | 0.00010 | mg/L | 0.00200 | | 91.4 | 80-120 | | | |
| **LCS Dup (B219281-BSD1)** | | | | Prepared & Analyzed: 12/17/18 | | | | | | |
| Mercury | 0.00175 | 0.00010 | mg/L | 0.00200 | | 87.4 | 80-120 | 4.52 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219281 - SW-846 7470A Prep** | | | | | | | | | | |
| **Matrix Spike (B219281-MS1)** | | **Source: 18L0420-01** | | Prepared & Analyzed: 12/17/18 | | | | | | |
| Mercury | 0.00175 | 0.00010 | mg/L | 0.00200 | ND | 87.6 | 75-125 | | | |
| **Matrix Spike Dup (B219281-MSD1)** | | **Source: 18L0420-01** | | Prepared & Analyzed: 12/17/18 | | | | | | |
| Mercury | 0.00191 | 0.00010 | mg/L | 0.00200 | ND | 95.5 | 75-125 | 8.66 | 20 | |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| DL-01 | Elevated reporting limits for all volatile compounds due to foaming sample matrix. |
| MS-12 | Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated. |
| MS-24 | Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,1-Dichloroethane | CT,NH,NY,ME |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

## Aaron Benoit

**From:** Doerfler, Elizabeth
**Sent:** Tuesday, December 11, 2018 12:45 PM
**To:** aaron.benoit@contestlabs.com
**Subject:** Missing Analyses for 12-10-18 Samples
**Attachments:** COC_121018.pdf; ATT00001.txt

**Follow Up Flag:** Follow up
**Flag Status:** Flagged

**Categories:** Immediate

Aaron,

I forgot to include pesticides on the COC from samples picked up at Greenwich High School yesterday. Samples MW-28-121018-1 and MW-35-121018-1 should be analyzed for pesticides. MW-28-121018-1 is a MSMSD for pesticides as well. Can you please add this analysis?

Thank you,

Liz Doerfler

HED 10L0420

# Con-Test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

## CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

Rev. 04.05.12



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticides 8081 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | MW-28-121018-1 | 12/10/18 | 0820 | | X | GW | U | X | X | X | X | X | X |
| 2 | MW-35-121018-1 | 12/10/18 | 1140 | | X | GW | U | X | X | X | X | X | |
| 3 | Trip Blank | 12/10/18 | LAB | | | | | | | | | X | |
| 4 | MW-F35-121018-1 | 12/10/18 | 1305 | | X | GW | U | X | | | | | X |
| 5 | MW-AP28-121018-1 | 12/10/18 | 1400 | | X | GW | U | X | | | | | |

Due to sample volume, unable to run homologs on sample -04 - MEK 12/18/2018

Comments:
MW-28-121018-1 is MS/MSD for all analyses.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| | | # of Containers | 1 | 1 | 1 | 1 | 1 |
|---|---|---|---|---|---|---|---|
| | | ** Preservation | I | N | I | I | H |
| | | ***Container Code | A | P | A | A | V |

ANALYSIS REQUESTED

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| Relinquished by: (signature) | Date/Time: |
|---|---|
| [signature] 12/10/18 | 1419 |
| Received by: (signature) [signature] 12-10-18 | Date/Time: 1419 |
| Relinquished by: (signature) [signature] 12-10-18 | Date/Time: 5:10 |
| Received by: (signature) [signature] 2.4.4.4 4.9 12-10-18 | Date/Time: 1710 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** Accum

**Received By** CL Date 12-10-18 Time 1710

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 2.4, 4.4, 4.9
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis ID's T Sampler Name T
Project T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? T
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? T On COC? T
Do all samples have the proper pH? Acid T pH<2 Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 36 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 41 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 4 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

X:\HPCHEM\1\DATA\A121818.SEC\A1218007.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | A1218007.D |
| Data File Path | X:\HPCHEM\1\DATA\A121818.SEC\ |
| Operator | RMW |
| Date Acquired | 12/18/2018 12:38 |
| Acq. Method File | ETPH18.M |
| Sample Name | ETPH 1500 |
| Instrument Name | 5890DFID |

| Name | Ret Time | Target Response | Avg response | *%D+/-20 |
|---|---|---|---|---|
| c - 9 | 1.15 | 329403 | 344914 | 4 |
| c - 10 | 1.51 | 333698 | 344914 | 3 |
| c - 12 | 2.24 | 335442 | 344914 | 3 |
| c - 14 | 2.90 | 348026 | 344914 | -1 |
| c - 16 | 3.50 | 353389 | 344914 | -2 |
| c - 18 | 4.08 | 354473 | 344914 | -3 |
| c - 20 | 4.70 | 357813 | 344914 | -4 |
| c - 22 | 5.21 | 359476 | 344914 | -4 |
| c - 24 | 5.65 | 356741 | 344914 | -3 |
| c - 26 | 6.04 | 354256 | 344914 | -3 |
| c - 28 | 6.40 | 354450 | 344914 | -3 |
| c - 30 | 6.73 | 355645 | 344914 | -3 |
| c - 32 | 7.04 | 338493 | 344914 | 2 |
| c - 34 | 7.34 | 324689 | 344914 | 6 |
| c - 36 | 7.62 | 317716 | 344914 | 8 |

**Samples**
18L0420-01

*One compound allowed %D </=50%

X:\HPCHEM\1\DATA\A121818.SEC\A1218037.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | A1218037.D |
| Data File Path | X:\HPCHEM\1\DATA\A121818.SEC\ |
| Operator | RMW |
| Date Acquired | 12/18/2018 6:50 |
| Acq. Method File | ETPH18.M |
| Sample Name | ETPH 1500 |
| Instrument Name | 5890DFID |

| Name | Ret Time | Target Response | Avg response | *%D+/-20 |
|---|---|---|---|---|
| c - 9 | 1.15 | 330507 | 347118 | 5 |
| c - 10 | 1.51 | 335069 | 347118 | 3 |
| c - 12 | 2.24 | 337129 | 347118 | 3 |
| c - 14 | 2.91 | 350013 | 347118 | -1 |
| c - 16 | 3.50 | 356377 | 347118 | -3 |
| c - 18 | 4.08 | 357499 | 347118 | -3 |
| c - 20 | 4.70 | 360642 | 347118 | -4 |
| c - 22 | 5.21 | 361985 | 347118 | -4 |
| c - 24 | 5.65 | 359183 | 347118 | -3 |
| c - 26 | 6.05 | 356690 | 347118 | -3 |
| c - 28 | 6.40 | 357090 | 347118 | -3 |
| c - 30 | 6.74 | 358227 | 347118 | -3 |
| c - 32 | 7.05 | 340675 | 347118 | 2 |
| c - 34 | 7.34 | 326326 | 347118 | 6 |
| c - 36 | 7.62 | 319366 | 347118 | 8 |

*One compound allowed %D </=50%

**Samples**

18L0575-03@SPLP
18L0558-01
18L0558-02
18L0558-03
18L0420-02
18L0595-02
18L0595-01
18L0575-02@SPLP

X:\HPCHEM\1\DATA\A121818.SEC\A1218077.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | A1218077.D |
| Data File Path | X:\HPCHEM\1\DATA\A121818.SEC\ |
| Operator | RMW |
| Date Acquired | 12/19/2018 12:46 |
| Acq. Method File | ETPH18.M |
| Sample Name | ETPH 1500 |
| Instrument Name | 5890DFID |

| Name | Ret Time | Target Response | Avg response | *%D+/-20 |
|---|---|---|---|---|
| c - 9 | 1.15 | 340477 | 358411 | 5 |
| c - 10 | 1.51 | 346181 | 358411 | 3 |
| c - 12 | 2.24 | 348568 | 358411 | 3 |
| c - 14 | 2.90 | 362151 | 358411 | -1 |
| c - 16 | 3.50 | 368661 | 358411 | -3 |
| c - 18 | 4.08 | 369602 | 358411 | -3 |
| c - 20 | 4.70 | 373007 | 358411 | -4 |
| c - 22 | 5.21 | 374194 | 358411 | -4 |
| c - 24 | 5.65 | 370680 | 358411 | -3 |
| c - 26 | 6.04 | 367502 | 358411 | -3 |
| c - 28 | 6.40 | 367415 | 358411 | -3 |
| c - 30 | 6.74 | 368978 | 358411 | -3 |
| c - 32 | 7.05 | 351556 | 358411 | 2 |
| c - 34 | 7.34 | 336959 | 358411 | 6 |
| c - 36 | 7.62 | 330237 | 358411 | 8 |

*One compound allowed %D </=50%

**Samples**
18L0579-05
18L0579-07
18L0579-04@2X

X:\HPCHEM\1\DATA\A121818.SEC\A1218107.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | A1218107.D |
| Data File Path | X:\HPCHEM\1\DATA\A121818.SEC\ |
| Operator | RMW |
| Date Acquired | 12/19/2018 5:13 |
| Acq. Method File | ETPH18.M |
| Sample Name | ETPH 1500 |
| Instrument Name | 5890DFID |

| Name | Ret Time | Target Response | Avg response | *%D+/-20 |
|---|---|---|---|---|
| c - 9 | 1.15 | 346082 | 366369 | 6 |
| c - 10 | 1.51 | 352601 | 366369 | 4 |
| c - 12 | 2.24 | 355840 | 366369 | 3 |
| c - 14 | 2.90 | 368921 | 366369 | -1 |
| c - 16 | 3.50 | 374906 | 366369 | -2 |
| c - 18 | 4.08 | 375980 | 366369 | -3 |
| c - 20 | 4.70 | 379580 | 366369 | -4 |
| c - 22 | 5.21 | 381312 | 366369 | -4 |
| c - 24 | 5.65 | 378256 | 366369 | -3 |
| c - 26 | 6.04 | 375705 | 366369 | -3 |
| c - 28 | 6.40 | 376475 | 366369 | -3 |
| c - 30 | 6.74 | 379064 | 366369 | -3 |
| c - 32 | 7.05 | 361747 | 366369 | 1 |
| c - 34 | 7.34 | 347620 | 366369 | 5 |
| c - 36 | 7.62 | 341451 | 366369 | 7 |

**Samples**
18L0575-01@2X SPLP

*One compound allowed %D </=50%

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 18L0420

***Laboratory Sample ID(s):***
18L0420-01 thru 18L0420-05

***Sample Date(s):***
12/10/2018

*List RCP Methods Used:*

CTDEP ETPH, SW-846 6020B, SW-846 7470A, SW-846 8081B, SW-846 8260C, SW-846 8270D

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington **Position:** **Project Manager**

**Printed Name:** **Lisa A. Worthington** **Date:** **12/19/18**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 21, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 18L0484

Enclosed are results of analyses for samples received by the laboratory on December 11, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

18L0484-01 5

18L0484-02 6

18L0484-03 7

18L0484-04 8

18L0484-05 9

18L0484-06 11

18L0484-07 12

18L0484-08 13

18L0484-09 15

18L0484-10 16

18L0484-11 17

Sample Preparation Information 18

QC Data 19

PCB Homologues by GC/MS Water 19

B219325 19

Organochloride Pesticides by GC/ECD 21

B219423 21

Pesticides Degradation Report 24

Dual Column RPD Report 25

Flag/Qualifier Summary 29

Certifications 30

Chain of Custody/Sample Receipt 32

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 12/21/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18L0484

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AM21-121118-1 | 18L0484-01 | Ground Water | | EPA 680 Modified | |
| MW-L25-121118-1 | 18L0484-02 | Ground Water | | EPA 680 Modified | |
| MW-R20-121118-1 | 18L0484-03 | Ground Water | | EPA 680 Modified | |
| MW-R20-121118-2 | 18L0484-04 | Ground Water | | EPA 680 Modified | |
| MW-AM16-121118-1 | 18L0484-05 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 8081B | |
| MW-AM16D-121118-1 | 18L0484-06 | Ground Water | | EPA 680 Modified | |
| MW-AG10-121118-1 | 18L0484-07 | Ground Water | | EPA 680 Modified | |
| MW-AV17-121118-1 | 18L0484-08 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 8081B | |
| MW-AP11-121118-1 | 18L0484-09 | Ground Water | | EPA 680 Modified | |
| MW-AL10-121118-1 | 18L0484-10 | Ground Water | | EPA 680 Modified | |
| MW-AJ19-121118-1 | 18L0484-11 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Dichlorobiphenyls**
S030493-CCV2

**Monochlorobiphenyls**
S030493-CCV2

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Dichlorobiphenyls**
18L0484-08[MW-AV17-121118-1], 18L0484-09[MW-AP11-121118-1], 18L0484-10[MW-AL10-121118-1], 18L0484-11[MW-AJ19-121118-1]

**Monochlorobiphenyls**
18L0484-08[MW-AV17-121118-1], 18L0484-09[MW-AP11-121118-1], 18L0484-10[MW-AL10-121118-1], 18L0484-11[MW-AJ19-121118-1]

**SW-846 8081B**

**Qualifications:**

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:**

**Methoxychlor [2C]**
B219423-BS1, B219423-BSD1

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**alpha-Chlordane [2C]**
B219423-BS1, B219423-BSD1

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AM21-121118-1**
Sampled: 12/11/2018 08:25

**Sample ID: 18L0484-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Tetrachlorobiphenyls | 0.027 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Pentachlorobiphenyls | 0.011 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |
| Total Polychlorinated biphenyls | 0.038 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 18:47 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 90.3 | 50-125 | | 12/18/18 18:47 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-L25-121118-1**
Sampled: 12/11/2018 09:35

**Sample ID: 18L0484-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 19:25 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.3 | 50-125 | | 12/18/18 19:25 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-R20-121118-1**
Sampled: 12/11/2018 10:35

**Sample ID: 18L0484-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:02 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 81.3 | 50-125 | | 12/18/18 20:02 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-R20-121118-2**
Sampled: 12/11/2018 10:40

**Sample ID: 18L0484-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 20:40 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 77.2 | 50-125 | | 12/18/18 20:40 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AM16-121118-1**
Sampled: 12/11/2018 08:40

**Sample ID: 18L0484-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00097 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Dichlorobiphenyls | 0.0034 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Trichlorobiphenyls | 0.023 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Tetrachlorobiphenyls | 0.031 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Pentachlorobiphenyls | 0.0050 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |
| Total Polychlorinated biphenyls | 0.062 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:17 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 79.6 | 50-125 | | 12/18/18 21:17 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484
Date Received: 12/11/2018
**Field Sample #: MW-AM16-121118-1**
Sampled: 12/11/2018 08:40
**Sample ID: 18L0484-05**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Aldrin [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| alpha-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| beta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| delta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| gamma-BHC (Lindane) [1] | ND | 0.029 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| 4,4'-DDD [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| 4,4'-DDE [2] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| 4,4'-DDT [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Endosulfan I [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Endosulfan II [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Endosulfan sulfate [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Endrin [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Endrin aldehyde [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Endrin ketone [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Heptachlor [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Heptachlor epoxide [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Hexachlorobenzene [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Methoxychlor [1] | ND | 0.49 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |
| Toxaphene [1] | ND | 0.98 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:12 | JMB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 73.4 | 30-150 | | 12/21/18 3:12 |
| Decachlorobiphenyl [2] | 70.4 | 30-150 | | 12/21/18 3:12 |
| Tetrachloro-m-xylene [1] | 70.8 | 30-150 | | 12/21/18 3:12 |
| Tetrachloro-m-xylene [2] | 67.9 | 30-150 | | 12/21/18 3:12 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AM16D-121118-1**
Sampled: 12/11/2018 10:15

**Sample ID: 18L0484-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Trichlorobiphenyls | 0.0020 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Tetrachlorobiphenyls | 0.0068 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |
| Total Polychlorinated biphenyls | 0.0088 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 21:54 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 75.6 | 50-125 | | 12/18/18 21:54 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AG10-121118-1**
Sampled: 12/11/2018 11:45

**Sample ID: 18L0484-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.018 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Dichlorobiphenyls | 0.14 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Trichlorobiphenyls | 0.051 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Tetrachlorobiphenyls | 0.035 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Pentachlorobiphenyls | 0.0023 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |
| Total Polychlorinated biphenyls | 0.25 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/18/18 22:32 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 73.0 | 50-125 | | 12/18/18 22:32 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AV17-121118-1**
Sampled: 12/11/2018 13:15

**Sample ID: 18L0484-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00099 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Dichlorobiphenyls | ND | 0.00099 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Trichlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:16 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 73.8 | 50-125 | | 12/19/18 2:16 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484
Date Received: 12/11/2018
**Field Sample #: MW-AV17-121118-1**
Sampled: 12/11/2018 13:15
**Sample ID: 18L0484-08**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Aldrin [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| alpha-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| beta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| delta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| 4,4'-DDE [2] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Endosulfan I [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Endosulfan II [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Endosulfan sulfate [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Endrin [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Endrin aldehyde [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Endrin ketone [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Heptachlor [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Heptachlor epoxide [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Hexachlorobenzene [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Methoxychlor [1] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |
| Toxaphene [1] | ND | 1.0 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 3:39 | JMB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 82.9 | 30-150 | | 12/21/18 3:39 |
| Decachlorobiphenyl [2] | 81.2 | 30-150 | | 12/21/18 3:39 |
| Tetrachloro-m-xylene [1] | 66.4 | 30-150 | | 12/21/18 3:39 |
| Tetrachloro-m-xylene [2] | 67.7 | 30-150 | | 12/21/18 3:39 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AP11-121118-1**
Sampled: 12/11/2018 13:30

**Sample ID: 18L0484-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Trichlorobiphenyls | 0.0011 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |
| Total Polychlorinated biphenyls | 0.0011 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 2:54 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.3 | 50-125 | | 12/19/18 2:54 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AL10-121118-1**
Sampled: 12/11/2018 14:50

**Sample ID: 18L0484-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Tetrachlorobiphenyls | 0.0061 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |
| Total Polychlorinated biphenyls | 0.0061 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 3:31 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 84.2 | 50-125 | | 12/19/18 3:31 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0484

Date Received: 12/11/2018

**Field Sample #: MW-AJ19-121118-1**
Sampled: 12/11/2018 14:35

**Sample ID: 18L0484-11**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | V-20 | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Trichlorobiphenyls | 0.016 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Tetrachlorobiphenyls | 0.033 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Pentachlorobiphenyls | 0.010 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |
| Total Polychlorinated biphenyls | 0.060 | | µg/L | 1 | | EPA 680 Modified | 12/17/18 | 12/19/18 4:09 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 94.9 | 50-125 | | 12/19/18 4:09 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0484-01 [MW-AM21-121118-1] | B219325 | 990 | 1.00 | 12/17/18 |
| 18L0484-02 [MW-L25-121118-1] | B219325 | 990 | 1.00 | 12/17/18 |
| 18L0484-03 [MW-R20-121118-1] | B219325 | 990 | 1.00 | 12/17/18 |
| 18L0484-04 [MW-R20-121118-2] | B219325 | 1000 | 1.00 | 12/17/18 |
| 18L0484-05 [MW-AM16-121118-1] | B219325 | 1030 | 1.00 | 12/17/18 |
| 18L0484-06 [MW-AM16D-121118-1] | B219325 | 1020 | 1.00 | 12/17/18 |
| 18L0484-07 [MW-AG10-121118-1] | B219325 | 1020 | 1.00 | 12/17/18 |
| 18L0484-08 [MW-AV17-121118-1] | B219325 | 1010 | 1.00 | 12/17/18 |
| 18L0484-09 [MW-AP11-121118-1] | B219325 | 1020 | 1.00 | 12/17/18 |
| 18L0484-10 [MW-AL10-121118-1] | B219325 | 1020 | 1.00 | 12/17/18 |
| 18L0484-11 [MW-AJ19-121118-1] | B219325 | 990 | 1.00 | 12/17/18 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0484-05 [MW-AM16-121118-1] | B219423 | 1020 | 10.0 | 12/18/18 |
| 18L0484-08 [MW-AV17-121118-1] | B219423 | 1000 | 10.0 | 12/18/18 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219325 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219325-BLK1)** | | | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.166* | | µg/L | 0.200 | | 83.0 | 50-125 | | | |
| **LCS (B219325-BS1)** | | | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 78.7 | 40-140 | | | |
| Dichlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 99.0 | 40-140 | | | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 91.4 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 92.9 | 40-140 | | | |
| Pentachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 94.0 | 40-140 | | | |
| Hexachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 86.1 | 40-140 | | | |
| Heptachlorobiphenyls | 0.48 | 0.0030 | µg/L | 0.600 | | 79.5 | 40-140 | | | |
| Octachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 78.5 | 40-140 | | | |
| Nonachlorobiphenyls | 0.76 | 0.0050 | µg/L | 1.00 | | 76.3 | 40-140 | | | |
| Decachlorobiphenyl | 0.66 | 0.0050 | µg/L | 1.00 | | 66.0 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.176* | | µg/L | 0.200 | | 88.0 | 50-125 | | | |
| **LCS Dup (B219325-BSD1)** | | | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 80.8 | 40-140 | 2.68 | 50 | |
| Dichlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 99.1 | 40-140 | 0.125 | 50 | |
| Trichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 90.4 | 40-140 | 1.08 | 50 | |
| Tetrachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.9 | 40-140 | 1.16 | 50 | |
| Pentachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.3 | 40-140 | 2.89 | 50 | |
| Hexachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 86.1 | 40-140 | 0.0918 | 50 | |
| Heptachlorobiphenyls | 0.48 | 0.0030 | µg/L | 0.600 | | 79.5 | 40-140 | 0.0231 | 50 | |
| Octachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 77.7 | 40-140 | 1.04 | 50 | |
| Nonachlorobiphenyls | 0.75 | 0.0050 | µg/L | 1.00 | | 74.8 | 40-140 | 1.96 | 50 | |
| Decachlorobiphenyl | 0.64 | 0.0050 | µg/L | 1.00 | | 64.3 | 40-140 | 2.68 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.180* | | µg/L | 0.200 | | 90.2 | 50-125 | | | |
| **Matrix Spike (B219325-MS1)** | | **Source: 18L0484-02** | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | 0.145 | 0.00096 | µg/L | 0.192 | ND | 75.2 | 0-200 | | | |
| Dichlorobiphenyls | 0.176 | 0.00096 | µg/L | 0.192 | ND | 91.7 | 0-200 | | | |
| Trichlorobiphenyls | 0.163 | 0.00096 | µg/L | 0.192 | ND | 84.8 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.334 | 0.0019 | µg/L | 0.385 | ND | 86.9 | 0-200 | | | |
| Pentachlorobiphenyls | 0.332 | 0.0019 | µg/L | 0.385 | ND | 86.2 | 0-200 | | | |
| Hexachlorobiphenyls | 0.334 | 0.0019 | µg/L | 0.385 | ND | 86.9 | 0-200 | | | |
| Heptachlorobiphenyls | 0.455 | 0.0029 | µg/L | 0.577 | ND | 78.9 | 0-200 | | | |
| Octachlorobiphenyls | 0.445 | 0.0029 | µg/L | 0.577 | ND | 77.1 | 0-200 | | | |
| Nonachlorobiphenyls | 0.713 | 0.0048 | µg/L | 0.962 | ND | 74.1 | 0-200 | | | |
| Decachlorobiphenyl | 0.592 | 0.0048 | µg/L | 0.962 | ND | 61.6 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.161* | | µg/L | 0.192 | | 83.5 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219325 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B219325-MSD1)** | | **Source: 18L0484-02** | | Prepared: 12/16/18 Analyzed: 12/18/18 | | | | | | |
| Monochlorobiphenyls | 0.143 | 0.0010 | µg/L | 0.202 | ND | 70.8 | 0-200 | 1.10 | | |
| Dichlorobiphenyls | 0.179 | 0.0010 | µg/L | 0.202 | ND | 88.5 | 0-200 | 1.43 | | |
| Trichlorobiphenyls | 0.164 | 0.0010 | µg/L | 0.202 | ND | 81.2 | 0-200 | 0.564 | | |
| Tetrachlorobiphenyls | 0.332 | 0.0020 | µg/L | 0.404 | ND | 82.3 | 0-200 | 0.548 | | |
| Pentachlorobiphenyls | 0.338 | 0.0020 | µg/L | 0.404 | ND | 83.6 | 0-200 | 1.92 | | |
| Hexachlorobiphenyls | 0.332 | 0.0020 | µg/L | 0.404 | ND | 82.1 | 0-200 | 0.706 | | |
| Heptachlorobiphenyls | 0.448 | 0.0030 | µg/L | 0.606 | ND | 74.0 | 0-200 | 1.42 | | |
| Octachlorobiphenyls | 0.446 | 0.0030 | µg/L | 0.606 | ND | 73.6 | 0-200 | 0.227 | | |
| Nonachlorobiphenyls | 0.711 | 0.0051 | µg/L | 1.01 | ND | 70.4 | 0-200 | 0.230 | | |
| Decachlorobiphenyl | 0.602 | 0.0051 | µg/L | 1.01 | ND | 59.6 | 0-200 | 1.62 | | |
| Surrogate: Tetrachloro-m-xylene | *0.163* | | µg/L | 0.202 | | 80.8 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219423 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219423-BLK1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| alpha-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| Alachlor | ND | 0.20 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.20 | µg/L | | | | | | | |
| Aldrin | ND | 0.050 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.030 | µg/L | | | | | | | |
| gamma-BHC (Lindane) [2C] | ND | 0.030 | µg/L | | | | | | | |
| Chlordane | ND | 0.20 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.20 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.040 | µg/L | | | | | | | |
| Dieldrin | ND | 0.0020 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.0020 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin | ND | 0.080 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.080 | µg/L | | | | | | | |
| Heptachlor | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.050 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.50 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.50 | µg/L | | | | | | | |
| Toxaphene | ND | 1.0 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.82* | | µg/L | 2.00 | | 90.9 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.79* | | µg/L | 2.00 | | 89.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.66* | | µg/L | 2.00 | | 83.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.78* | | µg/L | 2.00 | | 89.1 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219423 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B219423-BS1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| alpha-Chlordane | 0.99 | 0.050 | µg/L | 1.00 | | 98.8 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.99 | 0.050 | µg/L | 1.00 | | 98.5 | 0-200 | | | V-06 |
| gamma-Chlordane | 0.97 | 0.050 | µg/L | 1.00 | | 97.0 | 0-200 | | | |
| gamma-Chlordane [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 0-200 | | | |
| Alachlor | 0.92 | 0.20 | µg/L | 1.00 | | 91.8 | 40-140 | | | |
| Alachlor [2C] | 0.86 | 0.20 | µg/L | 1.00 | | 85.6 | 40-140 | | | |
| Aldrin | 0.99 | 0.050 | µg/L | 1.00 | | 98.5 | 40-140 | | | |
| Aldrin [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.4 | 40-140 | | | |
| alpha-BHC | 0.96 | 0.050 | µg/L | 1.00 | | 95.5 | 40-140 | | | |
| alpha-BHC [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| beta-BHC | 0.99 | 0.050 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| beta-BHC [2C] | 0.89 | 0.050 | µg/L | 1.00 | | 89.3 | 40-140 | | | |
| delta-BHC | 0.97 | 0.050 | µg/L | 1.00 | | 97.0 | 40-140 | | | |
| delta-BHC [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 97.8 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.99 | 0.030 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| gamma-BHC (Lindane) [2C] | 1.0 | 0.030 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 105 | 40-140 | | | |
| 4,4'-DDE [2C] | 1.1 | 0.040 | µg/L | 1.00 | | 105 | 40-140 | | | |
| 4,4'-DDT | 0.95 | 0.040 | µg/L | 1.00 | | 95.2 | 40-140 | | | |
| 4,4'-DDT [2C] | 0.94 | 0.040 | µg/L | 1.00 | | 94.1 | 40-140 | | | |
| Dieldrin | 0.99 | 0.0020 | µg/L | 1.00 | | 99.1 | 40-140 | | | |
| Dieldrin [2C] | 0.97 | 0.0020 | µg/L | 1.00 | | 96.9 | 40-140 | | | |
| Endosulfan I | 0.97 | 0.050 | µg/L | 1.00 | | 97.5 | 40-140 | | | |
| Endosulfan I [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Endosulfan II | 1.0 | 0.080 | µg/L | 1.00 | | 99.5 | 40-140 | | | |
| Endosulfan II [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.1 | 40-140 | | | |
| Endosulfan Sulfate | 0.99 | 0.080 | µg/L | 1.00 | | 98.7 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.96 | 0.080 | µg/L | 1.00 | | 95.7 | 40-140 | | | |
| Endrin | 0.94 | 0.080 | µg/L | 1.00 | | 94.5 | 40-140 | | | |
| Endrin [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 93.9 | 40-140 | | | |
| Endrin Aldehyde | 0.93 | 0.080 | µg/L | 1.00 | | 92.8 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.92 | 0.080 | µg/L | 1.00 | | 91.7 | 40-140 | | | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Heptachlor | 0.97 | 0.050 | µg/L | 1.00 | | 96.7 | 40-140 | | | |
| Heptachlor [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.2 | 40-140 | | | |
| Heptachlor Epoxide | 0.98 | 0.050 | µg/L | 1.00 | | 98.4 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.3 | 40-140 | | | |
| Hexachlorobenzene | 0.97 | 0.050 | µg/L | 1.00 | | 97.2 | 40-140 | | | |
| Hexachlorobenzene [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 96.9 | 40-140 | | | |
| Methoxychlor | 0.90 | 0.50 | µg/L | 1.00 | | 89.8 | 40-140 | | | |
| Methoxychlor [2C] | 0.90 | 0.50 | µg/L | 1.00 | | 89.7 | 40-140 | | | V-05 |
| Surrogate: Decachlorobiphenyl | *1.83* | | µg/L | 2.00 | | 91.5 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.80* | | µg/L | 2.00 | | 89.9 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.69* | | µg/L | 2.00 | | 84.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.81* | | µg/L | 2.00 | | 90.4 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219423 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219423-BSD1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| alpha-Chlordane | 0.97 | 0.050 | µg/L | 1.00 | | 96.8 | 0-200 | 2.04 | | |
| alpha-Chlordane [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 96.1 | 0-200 | 2.46 | | V-06 |
| gamma-Chlordane | 0.95 | 0.050 | µg/L | 1.00 | | 95.0 | 0-200 | 2.14 | | |
| gamma-Chlordane [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 98.4 | 0-200 | 2.32 | | |
| Alachlor | 0.91 | 0.20 | µg/L | 1.00 | | 91.4 | 40-140 | 0.449 | 20 | |
| Alachlor [2C] | 0.84 | 0.20 | µg/L | 1.00 | | 83.8 | 40-140 | 2.10 | 20 | |
| Aldrin | 0.96 | 0.050 | µg/L | 1.00 | | 96.2 | 40-140 | 2.41 | 20 | |
| Aldrin [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 95.1 | 40-140 | 2.32 | 20 | |
| alpha-BHC | 0.93 | 0.050 | µg/L | 1.00 | | 92.7 | 40-140 | 3.04 | 20 | |
| alpha-BHC [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 95.6 | 40-140 | 4.88 | 20 | |
| beta-BHC | 0.98 | 0.050 | µg/L | 1.00 | | 97.6 | 40-140 | 1.25 | 20 | |
| beta-BHC [2C] | 0.87 | 0.050 | µg/L | 1.00 | | 86.6 | 40-140 | 3.11 | 20 | |
| delta-BHC | 0.95 | 0.050 | µg/L | 1.00 | | 94.6 | 40-140 | 2.53 | 20 | |
| delta-BHC [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.1 | 40-140 | 3.85 | 20 | |
| gamma-BHC (Lindane) | 0.96 | 0.030 | µg/L | 1.00 | | 95.8 | 40-140 | 3.01 | 20 | |
| gamma-BHC (Lindane) [2C] | 0.97 | 0.030 | µg/L | 1.00 | | 96.6 | 40-140 | 4.01 | 20 | |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 1.94 | 20 | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 2.01 | 20 | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 1.57 | 20 | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 2.26 | 20 | |
| 4,4'-DDT | 0.94 | 0.040 | µg/L | 1.00 | | 94.1 | 40-140 | 1.11 | 20 | |
| 4,4'-DDT [2C] | 0.92 | 0.040 | µg/L | 1.00 | | 92.1 | 40-140 | 2.08 | 20 | |
| Dieldrin | 0.97 | 0.0020 | µg/L | 1.00 | | 97.0 | 40-140 | 2.08 | 20 | |
| Dieldrin [2C] | 0.95 | 0.0020 | µg/L | 1.00 | | 94.7 | 40-140 | 2.22 | 20 | |
| Endosulfan I | 0.95 | 0.050 | µg/L | 1.00 | | 95.5 | 40-140 | 2.07 | 20 | |
| Endosulfan I [2C] | 0.99 | 0.050 | µg/L | 1.00 | | 99.1 | 40-140 | 0.960 | 20 | |
| Endosulfan II | 0.97 | 0.080 | µg/L | 1.00 | | 97.4 | 40-140 | 2.19 | 20 | |
| Endosulfan II [2C] | 0.96 | 0.080 | µg/L | 1.00 | | 95.9 | 40-140 | 2.27 | 20 | |
| Endosulfan Sulfate | 0.96 | 0.080 | µg/L | 1.00 | | 96.0 | 40-140 | 2.75 | 20 | |
| Endosulfan Sulfate [2C] | 0.93 | 0.080 | µg/L | 1.00 | | 93.0 | 40-140 | 2.78 | 20 | |
| Endrin | 0.91 | 0.080 | µg/L | 1.00 | | 91.4 | 40-140 | 3.31 | 20 | |
| Endrin [2C] | 0.91 | 0.080 | µg/L | 1.00 | | 91.0 | 40-140 | 3.19 | 20 | |
| Endrin Aldehyde | 0.91 | 0.080 | µg/L | 1.00 | | 91.0 | 40-140 | 1.93 | 20 | |
| Endrin Aldehyde [2C] | 0.90 | 0.080 | µg/L | 1.00 | | 89.9 | 40-140 | 1.90 | 20 | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | 1.85 | 20 | |
| Endrin Ketone [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 99.2 | 40-140 | 1.91 | 20 | |
| Heptachlor | 0.93 | 0.050 | µg/L | 1.00 | | 93.3 | 40-140 | 3.60 | 20 | |
| Heptachlor [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 95.2 | 40-140 | 2.06 | 20 | |
| Heptachlor Epoxide | 0.96 | 0.050 | µg/L | 1.00 | | 96.2 | 40-140 | 2.23 | 20 | |
| Heptachlor Epoxide [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 92.1 | 40-140 | 2.42 | 20 | |
| Hexachlorobenzene | 0.96 | 0.050 | µg/L | 1.00 | | 95.9 | 40-140 | 1.39 | 20 | |
| Hexachlorobenzene [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.0 | 40-140 | 3.11 | 20 | |
| Methoxychlor | 0.88 | 0.50 | µg/L | 1.00 | | 88.5 | 40-140 | 1.53 | 20 | |
| Methoxychlor [2C] | 0.88 | 0.50 | µg/L | 1.00 | | 88.3 | 40-140 | 1.62 | 20 | V-05 |
| Surrogate: Decachlorobiphenyl | *1.79* | | µg/L | 2.00 | | 89.3 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.75* | | µg/L | 2.00 | | 87.6 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.67* | | µg/L | 2.00 | | 83.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.74* | | µg/L | 2.00 | | 87.2 | 30-150 | | | |

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BREAKDOWN REPORT

**Lab Sample ID:** **S030580-PEM1** **Analyzed:** **12/20/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 8.27 |
| Endrin [1] | 6.39 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.91 |
| Endrin [2] | 5.68 |

BREAKDOWN REPORT

**Lab Sample ID:** **S030580-PEM2** **Analyzed:** **12/21/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 8.69 |
| Endrin [1] | 6.61 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 8.01 |
| Endrin [2] | 6.70 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B219423-BS1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 7.429 | 7.398 | 7.458 | 1.0 | |
| | 2 | 7.442 | 7.412 | 7.472 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.980 | 6.950 | 7.010 | 1.0 | |
| | 2 | 7.003 | 6.973 | 7.033 | 1.1 | 0.0 |
| 4,4'-DDT | 1 | 7.645 | 7.614 | 7.674 | 0.95 | |
| | 2 | 7.684 | 7.654 | 7.714 | 0.94 | 1.1 |
| Alachlor | 1 | 6.399 | 6.369 | 6.429 | 0.92 | |
| | 2 | 6.165 | 6.135 | 6.195 | 0.86 | 6.7 |
| Aldrin | 1 | 6.310 | 6.280 | 6.340 | 0.99 | |
| | 2 | 6.232 | 6.203 | 6.263 | 0.97 | 2.0 |
| alpha-BHC | 1 | 5.573 | 5.543 | 5.603 | 0.96 | |
| | 2 | 5.504 | 5.474 | 5.534 | 1.0 | 4.1 |
| alpha-Chlordane | 1 | 6.927 | 6.897 | 6.957 | 0.99 | |
| | 2 | 6.876 | 6.846 | 6.906 | 0.99 | 0.0 |
| beta-BHC | 1 | 5.833 | 5.803 | 5.863 | 0.99 | |
| | 2 | 5.782 | 5.752 | 5.812 | 0.89 | 10.6 |
| delta-BHC | 1 | 5.955 | 5.924 | 5.984 | 0.97 | |
| | 2 | 5.975 | 5.945 | 6.005 | 0.98 | 1.0 |
| Dieldrin | 1 | 7.208 | 7.177 | 7.237 | 0.99 | |
| | 2 | 7.121 | 7.090 | 7.150 | 0.97 | 2.0 |
| Endosulfan I | 1 | 7.029 | 6.998 | 7.058 | 0.97 | |
| | 2 | 6.918 | 6.888 | 6.948 | 1.0 | 2.0 |
| Endosulfan II | 1 | 7.553 | 7.522 | 7.582 | 1.0 | |
| | 2 | 7.514 | 7.483 | 7.543 | 0.98 | 2.0 |
| Endosulfan Sulfate | 1 | 8.188 | 8.158 | 8.218 | 0.99 | |
| | 2 | 7.991 | 7.962 | 8.022 | 0.96 | 3.1 |
| Endrin | 1 | 7.384 | 7.353 | 7.413 | 0.94 | |
| | 2 | 7.350 | 7.320 | 7.380 | 0.94 | 1.1 |
| Endrin Aldehyde | 1 | 7.876 | 7.846 | 7.906 | 0.93 | |
| | 2 | 7.778 | 7.748 | 7.808 | 0.92 | 1.1 |
| Endrin Ketone | 1 | 8.373 | 8.343 | 8.403 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B219423-BS1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 8.353 | 8.323 | 8.383 | 1.0 | 9.5 |
| gamma-BHC (Lindane) | 1 | 5.780 | 5.749 | 5.809 | 0.99 | |
| | 2 | 5.729 | 5.699 | 5.759 | 1.0 | 1.0 |
| gamma-Chlordane | 1 | 6.830 | 6.799 | 6.859 | 0.97 | |
| | 2 | 6.769 | 6.739 | 6.799 | 1.0 | 3.1 |
| Heptachlor | 1 | 6.100 | 6.070 | 6.130 | 0.97 | |
| | 2 | 6.014 | 5.984 | 6.044 | 0.97 | 0.0 |
| Heptachlor Epoxide | 1 | 6.739 | 6.709 | 6.769 | 0.98 | |
| | 2 | 6.634 | 6.604 | 6.664 | 0.94 | 4.2 |
| Hexachlorobenzene | 1 | 5.466 | 5.436 | 5.496 | 0.97 | |
| | 2 | 5.415 | 5.385 | 5.445 | 0.97 | 0.0 |
| Methoxychlor | 1 | 8.015 | 7.985 | 8.045 | 0.90 | |
| | 2 | 8.203 | 8.174 | 8.234 | 0.90 | 0.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B219423-BSD1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 7.427 | 7.398 | 7.458 | 1.0 | |
| | 2 | 7.442 | 7.412 | 7.472 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.979 | 6.950 | 7.010 | 1.0 | |
| | 2 | 7.003 | 6.973 | 7.033 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.644 | 7.614 | 7.674 | 0.94 | |
| | 2 | 7.685 | 7.654 | 7.714 | 0.92 | 2.2 |
| Alachlor | 1 | 6.398 | 6.369 | 6.429 | 0.91 | |
| | 2 | 6.165 | 6.135 | 6.195 | 0.84 | 8.0 |
| Aldrin | 1 | 6.309 | 6.280 | 6.340 | 0.96 | |
| | 2 | 6.232 | 6.203 | 6.263 | 0.95 | 1.1 |
| alpha-BHC | 1 | 5.572 | 5.543 | 5.603 | 0.93 | |
| | 2 | 5.504 | 5.474 | 5.534 | 0.96 | 3.2 |
| alpha-Chlordane | 1 | 6.926 | 6.897 | 6.957 | 0.97 | |
| | 2 | 6.876 | 6.846 | 6.906 | 0.96 | 1.0 |
| beta-BHC | 1 | 5.833 | 5.803 | 5.863 | 0.98 | |
| | 2 | 5.782 | 5.752 | 5.812 | 0.87 | 11.9 |
| delta-BHC | 1 | 5.954 | 5.924 | 5.984 | 0.95 | |
| | 2 | 5.975 | 5.945 | 6.005 | 0.94 | 1.1 |
| Dieldrin | 1 | 7.206 | 7.177 | 7.237 | 0.97 | |
| | 2 | 7.120 | 7.090 | 7.150 | 0.95 | 2.1 |
| Endosulfan I | 1 | 7.028 | 6.998 | 7.058 | 0.95 | |
| | 2 | 6.918 | 6.888 | 6.948 | 0.99 | 3.1 |
| Endosulfan II | 1 | 7.552 | 7.522 | 7.582 | 0.97 | |
| | 2 | 7.513 | 7.483 | 7.543 | 0.96 | 1.0 |
| Endosulfan Sulfate | 1 | 8.188 | 8.158 | 8.218 | 0.96 | |
| | 2 | 7.991 | 7.962 | 8.022 | 0.93 | 3.2 |
| Endrin | 1 | 7.383 | 7.353 | 7.413 | 0.91 | |
| | 2 | 7.350 | 7.320 | 7.380 | 0.91 | 0.0 |
| Endrin Aldehyde | 1 | 7.875 | 7.846 | 7.906 | 0.91 | |
| | 2 | 7.778 | 7.748 | 7.808 | 0.90 | 1.1 |
| Endrin Ketone | 1 | 8.372 | 8.343 | 8.403 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B219423-BSD1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 8.353 | 8.323 | 8.383 | 0.99 | 1.0 |
| gamma-BHC (Lindane) | 1 | 5.779 | 5.749 | 5.809 | 0.96 | |
| | 2 | 5.729 | 5.699 | 5.759 | 0.97 | 1.0 |
| gamma-Chlordane | 1 | 6.828 | 6.799 | 6.859 | 0.95 | |
| | 2 | 6.769 | 6.739 | 6.799 | 0.98 | 3.1 |
| Heptachlor | 1 | 6.099 | 6.070 | 6.130 | 0.93 | |
| | 2 | 6.015 | 5.984 | 6.044 | 0.95 | 2.1 |
| Heptachlor Epoxide | 1 | 6.738 | 6.709 | 6.769 | 0.96 | |
| | 2 | 6.634 | 6.604 | 6.664 | 0.92 | 4.3 |
| Hexachlorobenzene | 1 | 5.466 | 5.436 | 5.496 | 0.96 | |
| | 2 | 5.415 | 5.385 | 5.445 | 0.94 | 2.1 |
| Methoxychlor | 1 | 8.014 | 7.985 | 8.045 | 0.88 | |
| | 2 | 8.203 | 8.174 | 8.234 | 0.88 | 1.1 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB

**con-test®** ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

1860484

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticides 8081 | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | # of Containers | 24 | | | | | 4 | | | | | | |
| | | | | | | | ** Preservation | I | N | I | I | H | I | | | | | | |
| | | | | | | | ***Container Code | A | P | A | A | V | A | | | | | | |
| 1 | MW-AM21-121118-1 | 12/11/18 | 0825 | | X | GW | U | X | | | | | | | | | | | |
| 2 | MW-L25-121118-1 | 12/11/18 | 0935 | | X | GW | U | X | | | | | | | | | | | |
| 3 | MW-R20-121118-1 | 12/11/18 | 1035 | | X | GW | U | X | | | | | | | | | | | |
| 4 | MW-R20-121118-2 | 12/11/18 | 1040 | | X | GW | U | X | | | | | | | | | | | |
| 5 | MW-AM16-121118-1 | 12/11/18 | 0840 | | X | GW | U | X | | | | | X | | | | | | |
| 6 | MW-AM16D-121118-1 | 12/11/18 | 1025 | | X | GW | U | X | | | | | | | | | | | |
| 7 | MW-AG10-121118-1 | 12/11/18 | 1145 | | X | GW | U | X | | | | | | | | | | | |
| 8 | MW-AV17-121118-1 | 12/11/18 | 1315 | | X | GW | U | X | | | | | X | | | | | | |
| 9 | MW-AP11-121118-1 | 12/11/18 | 1330 | | X | GW | U | X | | | | | | | | | | | |
| 10 | MW-AL10-121118-1 | 12/11/18 | 1450 | | X | GW | U | X | | | | | | | | | | | |

ANALYSIS REQUESTED

Comments:
MW-L25-121118-1 & MS/MSD for PCBs.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

| | | |
|---|---|---|
| Relinquished by: (signature) | 12/11/18 | Date/Time: 1503 |
| Received by: (signature) | 12/11/18 | Date/Time: 1503 |
| Relinquished by: (signature) | 12/11/18 | Date/Time: 1840 |
| Received by: (signature) 2.8, 5.1, 2.4 | 12/11/18 | Date/Time: 18:40 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

ALB

**Con-test®** ANALYTICAL LABORATORY

Phone: 413-525-2332
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# CHAIN OF CUSTODY RECORD

1810484

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | | | | | | | | | | # of Containers | ** Preservation | ***Container Code |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | I | N | I | I | H | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | A | P | A | A | V | | | | | | | | | | |
| 11 | MW-AJ19-121118-1 | 12/11/18 | 1435 | | X | GW | U | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUESTED

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| | | |
|---|---|---|
| Relinquished by: (signature) 12/11/18 | Date/Time: 1503 | |
| Received by: (signature) 12-11-18 | Date/Time: 1503 | |
| Relinquished by: (signature) 1840 | Date/Time: 12-11-18 | |
| Received by: (signature) 2.8, 5d, 2.4 12/11/18 | Date/Time: 18:40 | |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA-LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** MP Date 12/11/18 Time 18:40

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 2.8, 5.1, 2.4 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? N/A MS/MSD? T

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? N/A Acid ____ Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 30 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 18L0484

***Laboratory Sample ID(s):***
18L0484-01 thru 18L0484-11

***Sample Date(s):***
12/11/2018

*List RCP Methods Used:*
SW-846 8081B

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☑ Yes ☐ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☑ Yes ☐ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington **Position:** **Project Manager**

**Printed Name:** **Lisa A. Worthington** **Date:** **12/21/18**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

December 21, 2018

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356
Laboratory Work Order Number: 18L0583

Enclosed are results of analyses for samples received by the laboratory on December 12, 2018. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 8

18L0583-01 8

18L0583-02 9

18L0583-03 10

18L0583-04 12

18L0583-05 13

18L0583-06 19

18L0583-07 26

18L0583-08 28

18L0583-09 29

18L0583-10 35

18L0583-11 36

18L0583-12 37

Sample Preparation Information 38

QC Data 40

PCB Homologues by GC/MS Water 40

B219541 40

Volatile Organic Compounds by GC/MS 41

B219524 41

Semivolatile Organic Compounds by GC/MS 44

B219592 44

Organochloride Pesticides by GC/ECD 46

B219423 46

# Table of Contents (continued)


Petroleum Hydrocarbons Analyses 49

B219339 49

Metals Analyses (Total) 50

B219408 50

B219714 51

Pesticides Degradation Report 52

Dual Column RPD Report 53

Flag/Qualifier Summary 57

Certifications 58

Chain of Custody/Sample Receipt 62

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 12/21/2018

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 18L0583

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AG30-121218-1 | 18L0583-01 | Ground Water | | EPA 680 Modified | |
| MW-AJ13D-121218-1 | 18L0583-02 | Ground Water | | EPA 680 Modified | |
| MW-Y15-121218-1 | 18L0583-03 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| MW-Y15D-121218-1 | 18L0583-04 | Ground Water | | EPA 680 Modified | |
| MW-AJ13-121218-1 | 18L0583-05 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-Y9-121218-1 | 18L0583-06 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| Trip Blank | 18L0583-07 | Trip Blank Water | | SW-846 8260C | |
| MW-AH16D-121218-1 | 18L0583-08 | Ground Water | | EPA 680 Modified | |
| MW-AH16R-121218-1 | 18L0583-09 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-Y9D-121218-1 | 18L0583-10 | Ground Water | | EPA 680 Modified | |
| MW-AA12D-121218-1 | 18L0583-11 | Ground Water | | EPA 680 Modified | |
| MW-Y26-121218-1 | 18L0583-12 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270, only PAHs were requested and reported.

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**SW-846 8081B**

**Qualifications:**

**V-05**

Continuing calibration did not meet method specifications and was biased on the low side for this compound.

**Analyte & Samples(s) Qualified:**

**Methoxychlor [2C]**
B219423-BS1, B219423-BSD1

**V-06**

Continuing calibration did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**alpha-Chlordane [2C]**
B219423-BS1, B219423-BSD1

**SW-846 8260C**

**Qualifications:**

**DL-01**

Elevated reporting limits for all volatile compounds due to foaming sample matrix.

**Analyte & Samples(s) Qualified:**

18L0583-09[MW-AH16R-121218-1]

**L-01**

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.

**Analyte & Samples(s) Qualified:**

**Acetone**
B219524-BS1

**Chloromethane**
B219524-BS1

**Tetrahydrofuran**
B219524-BS1

**L-03**

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

**Analyte & Samples(s) Qualified:**

**Bromomethane**
18L0583-05[MW-AJ13-121218-1], 18L0583-06[MW-Y9-121218-1], 18L0583-07[Trip Blank], 18L0583-09[MW-AH16R-121218-1], B219524-BLK1, B219524-BS1

**V-20**

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Chloromethane**
B219524-BS1, S030476-CCV1

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**
B219524-BS1, S030476-CCV1

**Carbon Disulfide**
B219524-BS1, S030476-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Project Manager

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AG30-121218-1**
Sampled: 12/12/2018 07:20

**Sample ID: 18L0583-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0015 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |
| Total Polychlorinated biphenyls | 0.0015 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 20:24 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 110 | 50-125 | | 12/19/18 20:24 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AJ13D-121218-1**
Sampled: 12/12/2018 08:55

**Sample ID: 18L0583-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.029 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Dichlorobiphenyls | 0.21 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Trichlorobiphenyls | 0.31 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Tetrachlorobiphenyls | 0.10 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Pentachlorobiphenyls | 0.026 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |
| Total Polychlorinated biphenyls | 0.67 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:02 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 92.0 | 50-125 | | 12/19/18 21:02 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y15-121218-1**
Sampled: 12/12/2018 09:20

**Sample ID: 18L0583-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 9.3 | 0.00096 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Dichlorobiphenyls | 9.4 | 0.00096 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Trichlorobiphenyls | 1.2 | 0.00096 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Tetrachlorobiphenyls | 0.20 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Pentachlorobiphenyls | 0.019 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |
| Total Polychlorinated biphenyls | 20 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 21:39 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 77.9 | 50-125 | | 12/19/18 21:39 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y15-121218-1**
Sampled: 12/12/2018 09:20

**Sample ID: 18L0583-03**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Arsenic | 2.0 | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Barium | 650 | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 11:54 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:27 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y15D-121218-1**
Sampled: 12/12/2018 08:15

**Sample ID: 18L0583-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.017 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Dichlorobiphenyls | 0.045 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Trichlorobiphenyls | 0.040 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Tetrachlorobiphenyls | 0.036 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Pentachlorobiphenyls | 0.0058 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |
| Total Polychlorinated biphenyls | 0.14 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:16 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 96.4 | 50-125 | | 12/19/18 22:16 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AJ13-121218-1**
Sampled: 12/12/2018 10:15

**Sample ID: 18L0583-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0056 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Dichlorobiphenyls | 0.30 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Trichlorobiphenyls | 1.9 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Tetrachlorobiphenyls | 0.44 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Pentachlorobiphenyls | 0.049 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |
| Total Polychlorinated biphenyls | 2.7 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 22:54 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 92.0 | 50-125 | | 12/19/18 22:54 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-AJ13-121218-1**
Sampled: 12/12/2018 10:15
**Sample ID: 18L0583-05**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | L-03 | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-AJ13-121218-1**
Sampled: 12/12/2018 10:15
**Sample ID: 18L0583-05**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:32 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93.8 | 70-130 | | 12/19/18 8:32 |
| Toluene-d8 | 99.1 | 70-130 | | 12/19/18 8:32 |
| 4-Bromofluorobenzene | 99.1 | 70-130 | | 12/19/18 8:32 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT | Sample Description: | Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AJ13-121218-1** | Sampled: 12/12/2018 10:15

**Sample ID: 18L0583-05**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 18:33 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 82.1 | 30-130 | | 12/19/18 18:33 |
| 2-Fluorobiphenyl | 50.4 | 30-130 | | 12/19/18 18:33 |
| p-Terphenyl-d14 | 61.0 | 30-130 | | 12/19/18 18:33 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-AJ13-121218-1**
Sampled: 12/12/2018 10:15
**Sample ID: 18L0583-05**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.19 | 0.075 | mg/L | 1 | | CTDEP ETPH | 12/17/18 | 12/19/18 15:10 | KLB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 69.1 | 50-150 | | 12/19/18 15:10 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AJ13-121218-1**
Sampled: 12/12/2018 10:15

**Sample ID: 18L0583-05**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Arsenic | 7.4 | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Barium | 80 | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 11:56 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |
| Zinc | 4000 | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 11:41 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20

**Sample ID: 18L0583-06**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0019 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Dichlorobiphenyls | 0.0039 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Trichlorobiphenyls | 0.0029 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |
| Total Polychlorinated biphenyls | 0.0087 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/19/18 23:31 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.5 | 50-125 | | 12/19/18 23:31 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20
**Sample ID: 18L0583-06**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | L-03 | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20
**Sample ID: 18L0583-06**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 9:03 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 93.2 | 70-130 | | 12/19/18 9:03 |
| Toluene-d8 | 101 | 70-130 | | 12/19/18 9:03 |
| 4-Bromofluorobenzene | 101 | 70-130 | | 12/19/18 9:03 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20
**Sample ID: 18L0583-06**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.29 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Fluoranthene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Fluorene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Naphthalene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Phenanthrene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |
| Pyrene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:01 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 70.4 | 30-130 | | 12/19/18 19:01 |
| 2-Fluorobiphenyl | 43.8 | 30-130 | | 12/19/18 19:01 |
| p-Terphenyl-d14 | 52.0 | 30-130 | | 12/19/18 19:01 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20
**Sample ID: 18L0583-06**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Aldrin [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| alpha-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| beta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| delta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| 4,4'-DDE [2] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Endosulfan I [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Endosulfan II [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Endosulfan sulfate [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Endrin [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Endrin aldehyde [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Endrin ketone [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Heptachlor [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Heptachlor epoxide [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Hexachlorobenzene [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Methoxychlor [1] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |
| Toxaphene [1] | ND | 0.99 | µg/L | 1 | | SW-846 8081B | 12/18/18 | 12/21/18 4:07 | JMB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 72.7 | 30-150 | | 12/21/18 4:07 |
| Decachlorobiphenyl [2] | 68.7 | 30-150 | | 12/21/18 4:07 |
| Tetrachloro-m-xylene [1] | 70.4 | 30-150 | | 12/21/18 4:07 |
| Tetrachloro-m-xylene [2] | 64.4 | 30-150 | | 12/21/18 4:07 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20
**Sample ID: 18L0583-06**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.28 | 0.075 | mg/L | 1 | | CTDEP ETPH | 12/17/18 | 12/19/18 15:28 | KLB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 81.7 | 50-150 | | 12/19/18 15:28 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y9-121218-1**
Sampled: 12/12/2018 11:20

**Sample ID: 18L0583-06**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Arsenic | 2.1 | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Barium | 940 | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 11:57 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:12 | MJH |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: Trip Blank**
Sampled: 12/12/2018 00:00
**Sample ID: 18L0583-07**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 20 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Bromomethane | ND | 2.0 | µg/L | 1 | L-03 | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Chloromethane | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: Trip Blank**
Sampled: 12/12/2018 00:00
**Sample ID: 18L0583-07**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Naphthalene | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2,3-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2,4-Trichlorobenzene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 12/19/18 | 12/19/18 8:02 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 96.2 | 70-130 | | 12/19/18 8:02 |
| Toluene-d8 | 99.8 | 70-130 | | 12/19/18 8:02 |
| 4-Bromofluorobenzene | 96.2 | 70-130 | | 12/19/18 8:02 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-AH16D-121218-1**
Sampled: 12/12/2018 12:25
**Sample ID: 18L0583-08**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0052 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Dichlorobiphenyls | 0.012 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Trichlorobiphenyls | 0.0077 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Tetrachlorobiphenyls | 0.0054 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |
| Total Polychlorinated biphenyls | 0.030 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:09 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 93.4 | 50-125 | | 12/20/18 0:09 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AH16R-121218-1**
Sampled: 12/12/2018 13:15

**Sample ID: 18L0583-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 3.4 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Dichlorobiphenyls | 2.0 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Trichlorobiphenyls | 0.47 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Tetrachlorobiphenyls | 0.17 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Pentachlorobiphenyls | 0.018 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Decachlorobiphenyl | 6.1 | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |
| Total Polychlorinated biphenyls | 1.0 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 0:46 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 80.7 | 50-125 | | 12/20/18 0:46 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AH16R-121218-1**
Sampled: 12/12/2018 13:15

**Sample ID: 18L0583-09**

Sample Matrix: Ground Water

Sample Flags: DL-01

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 40 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Acrylonitrile | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Benzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Bromobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Bromodichloromethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Bromoform | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Bromomethane | ND | 4.0 | µg/L | 2 | L-03 | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 2-Butanone (MEK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| n-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| sec-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| tert-Butylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Carbon Disulfide | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Carbon Tetrachloride | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Chlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Chlorodibromomethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Chloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Chloroform | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Chloromethane | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 2-Chlorotoluene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 4-Chlorotoluene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Dibromomethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,3-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,4-Dichlorobenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1-Dichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2-Dichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1-Dichloroethylene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| cis-1,2-Dichloroethylene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| trans-1,2-Dichloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,3-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 2,2-Dichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| cis-1,3-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| trans-1,3-Dichloropropene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Ethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Hexachlorobutadiene | ND | 1.2 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 2-Hexanone (MBK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Isopropylbenzene (Cumene) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-AH16R-121218-1**
Sampled: 12/12/2018 13:15
**Sample ID: 18L0583-09**
Sample Matrix: Ground Water
Sample Flags: DL-01

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Methylene Chloride | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Naphthalene | ND | 10 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| n-Propylbenzene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Styrene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Tetrachloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Tetrahydrofuran | ND | 20 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Toluene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2,3-Trichlorobenzene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2,4-Trichlorobenzene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1,1-Trichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1,2-Trichloroethane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Trichloroethylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2,3-Trichloropropane | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,2,4-Trimethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| 1,3,5-Trimethylbenzene | ND | 1.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| Vinyl Chloride | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| m+p Xylene | ND | 4.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |
| o-Xylene | ND | 2.0 | µg/L | 2 | | SW-846 8260C | 12/19/18 | 12/19/18 9:34 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 95.4 | 70-130 | | 12/19/18 9:34 |
| Toluene-d8 | 99.4 | 70-130 | | 12/19/18 9:34 |
| 4-Bromofluorobenzene | 100 | 70-130 | | 12/19/18 9:34 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AH16R-121218-1**
Sampled: 12/12/2018 13:15

**Sample ID: 18L0583-09**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Naphthalene (SIM) | 1.0 | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 12/18/18 | 12/19/18 19:30 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 68.1 | 30-130 | | 12/19/18 19:30 |
| 2-Fluorobiphenyl | 42.0 | 30-130 | | 12/19/18 19:30 |
| p-Terphenyl-d14 | 45.3 | 30-130 | | 12/19/18 19:30 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583
Date Received: 12/12/2018
**Field Sample #: MW-AH16R-121218-1**
Sampled: 12/12/2018 13:15
**Sample ID: 18L0583-09**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.42 | 0.075 | mg/L | 1 | | CTDEP ETPH | 12/17/18 | 12/19/18 15:45 | KLB |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 75.1 | 50-150 | | 12/19/18 15:45 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AH16R-121218-1**
Sampled: 12/12/2018 13:15

**Sample ID: 18L0583-09**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Arsenic | 4.4 | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Barium | 180 | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Beryllium | ND | 2.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Cadmium | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Chromium | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Copper | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Lead | ND | 5.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 12/20/18 | 12/21/18 11:59 | EJB |
| Nickel | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Selenium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Silver | ND | 2.5 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Thallium | ND | 1.0 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Vanadium | ND | 25 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |
| Zinc | ND | 50 | µg/L | 5 | | SW-846 6020B | 12/17/18 | 12/18/18 12:15 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y9D-121218-1**
Sampled: 12/12/2018 00:00

**Sample ID: 18L0583-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0013 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Dichlorobiphenyls | 0.0013 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |
| Total Polychlorinated biphenyls | 0.0027 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 1:23 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 101 | 50-125 | | 12/20/18 1:23 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-AA12D-121218-1**
Sampled: 12/12/2018 14:15

**Sample ID: 18L0583-11**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Dichlorobiphenyls | 0.0075 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Trichlorobiphenyls | 0.018 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Tetrachlorobiphenyls | 0.026 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Pentachlorobiphenyls | 0.0045 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |
| Total Polychlorinated biphenyls | 0.056 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 13:55 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 95.3 | 50-125 | | 12/20/18 13:55 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 18L0583

Date Received: 12/12/2018

**Field Sample #: MW-Y26-121218-1**
Sampled: 12/12/2018 14:50

**Sample ID: 18L0583-12**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 12/19/18 | 12/20/18 11:26 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 97.6 | 50-125 | | 12/20/18 11:26 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-05 [MW-AJ13-121218-1] | B219339 | 1000 | 1.00 | 12/17/18 |
| 18L0583-06 [MW-Y9-121218-1] | B219339 | 1000 | 1.00 | 12/17/18 |
| 18L0583-09 [MW-AH16R-121218-1] | B219339 | 1000 | 1.00 | 12/17/18 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-01 [MW-AG30-121218-1] | B219541 | 1000 | 1.00 | 12/19/18 |
| 18L0583-02 [MW-AJ13D-121218-1] | B219541 | 1010 | 1.00 | 12/19/18 |
| 18L0583-03 [MW-Y15-121218-1] | B219541 | 1040 | 1.00 | 12/19/18 |
| 18L0583-04 [MW-Y15D-121218-1] | B219541 | 1020 | 1.00 | 12/19/18 |
| 18L0583-05 [MW-AJ13-121218-1] | B219541 | 1010 | 1.00 | 12/19/18 |
| 18L0583-06 [MW-Y9-121218-1] | B219541 | 1020 | 1.00 | 12/19/18 |
| 18L0583-08 [MW-AH16D-121218-1] | B219541 | 1010 | 1.00 | 12/19/18 |
| 18L0583-09 [MW-AH16R-121218-1] | B219541 | 1000 | 1.00 | 12/19/18 |
| 18L0583-10 [MW-Y9D-121218-1] | B219541 | 1020 | 1.00 | 12/19/18 |
| 18L0583-11 [MW-AA12D-121218-1] | B219541 | 1020 | 1.00 | 12/19/18 |
| 18L0583-12 [MW-Y26-121218-1] | B219541 | 1000 | 1.00 | 12/19/18 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-03 [MW-Y15-121218-1] | B219408 | 50.0 | 50.0 | 12/17/18 |
| 18L0583-05 [MW-AJ13-121218-1] | B219408 | 50.0 | 50.0 | 12/17/18 |
| 18L0583-06 [MW-Y9-121218-1] | B219408 | 50.0 | 50.0 | 12/17/18 |
| 18L0583-09 [MW-AH16R-121218-1] | B219408 | 50.0 | 50.0 | 12/17/18 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-03 [MW-Y15-121218-1] | B219714 | 6.00 | 6.00 | 12/20/18 |
| 18L0583-05 [MW-AJ13-121218-1] | B219714 | 6.00 | 6.00 | 12/20/18 |
| 18L0583-06 [MW-Y9-121218-1] | B219714 | 6.00 | 6.00 | 12/20/18 |
| 18L0583-09 [MW-AH16R-121218-1] | B219714 | 6.00 | 6.00 | 12/20/18 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-06 [MW-Y9-121218-1] | B219423 | 1010 | 10.0 | 12/18/18 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-05 [MW-AJ13-121218-1] | B219524 | 5 | 5.00 | 12/19/18 |
| 18L0583-06 [MW-Y9-121218-1] | B219524 | 5 | 5.00 | 12/19/18 |
| 18L0583-07 [Trip Blank] | B219524 | 5 | 5.00 | 12/19/18 |
| 18L0583-09 [MW-AH16R-121218-1] | B219524 | 2.5 | 5.00 | 12/19/18 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 18L0583-05 [MW-AJ13-121218-1] | B219592 | 1000 | 1.00 | 12/18/18 |
| 18L0583-06 [MW-Y9-121218-1] | B219592 | 1020 | 1.00 | 12/18/18 |
| 18L0583-09 [MW-AH16R-121218-1] | B219592 | 1000 | 1.00 | 12/18/18 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219541 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219541-BLK1)** | | | | Prepared & Analyzed: 12/19/18 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.180* | | µg/L | 0.200 | | 89.9 | 50-125 | | | |
| **LCS (B219541-BS1)** | | | | Prepared & Analyzed: 12/19/18 | | | | | | |
| Monochlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 77.4 | 40-140 | | | |
| Dichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 91.4 | 40-140 | | | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 84.1 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 86.1 | 40-140 | | | |
| Pentachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 87.5 | 40-140 | | | |
| Hexachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 84.3 | 40-140 | | | |
| Heptachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 77.9 | 40-140 | | | |
| Octachlorobiphenyls | 0.46 | 0.0030 | µg/L | 0.600 | | 76.4 | 40-140 | | | |
| Nonachlorobiphenyls | 0.72 | 0.0050 | µg/L | 1.00 | | 72.3 | 40-140 | | | |
| Decachlorobiphenyl | 0.62 | 0.0050 | µg/L | 1.00 | | 61.8 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.184* | | µg/L | 0.200 | | 92.2 | 50-125 | | | |
| **LCS Dup (B219541-BSD1)** | | | | Prepared & Analyzed: 12/19/18 | | | | | | |
| Monochlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 79.9 | 40-140 | 3.25 | 50 | |
| Dichlorobiphenyls | 0.20 | 0.0010 | µg/L | 0.200 | | 99.9 | 40-140 | 8.91 | 50 | |
| Trichlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 93.1 | 40-140 | 10.2 | 50 | |
| Tetrachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 94.9 | 40-140 | 9.72 | 50 | |
| Pentachlorobiphenyls | 0.40 | 0.0020 | µg/L | 0.400 | | 98.9 | 40-140 | 12.1 | 50 | |
| Hexachlorobiphenyls | 0.38 | 0.0020 | µg/L | 0.400 | | 94.6 | 40-140 | 11.5 | 50 | |
| Heptachlorobiphenyls | 0.52 | 0.0030 | µg/L | 0.600 | | 87.3 | 40-140 | 11.4 | 50 | |
| Octachlorobiphenyls | 0.52 | 0.0030 | µg/L | 0.600 | | 86.3 | 40-140 | 12.2 | 50 | |
| Nonachlorobiphenyls | 0.82 | 0.0050 | µg/L | 1.00 | | 81.7 | 40-140 | 12.1 | 50 | |
| Decachlorobiphenyl | 0.70 | 0.0050 | µg/L | 1.00 | | 69.8 | 40-140 | 12.2 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.194* | | µg/L | 0.200 | | 96.9 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219524 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B219524-BLK1)** | | | | Prepared: 12/18/18 Analyzed: 12/19/18 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | L-03 |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219524 - SW-846 5030B** | | | | | | | | | | | |
| **Blank (B219524-BLK1)** | | | | Prepared: 12/18/18 Analyzed: 12/19/18 | | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *24.1* | | µg/L | 25.0 | | 96.4 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *24.7* | | µg/L | 25.0 | | 98.8 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *24.5* | | µg/L | 25.0 | | 98.0 | | 70-130 | | | |
| **LCS (B219524-BS1)** | | | | Prepared & Analyzed: 12/18/18 | | | | | | | |
| **Acetone** | 154 | 10 | µg/L | 100 | | **154** | * | 70-130 | | | L-01, V-36 |
| Acrylonitrile | 12.9 | 2.0 | µg/L | 10.0 | | 129 | | 70-130 | | | |
| Benzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| Bromobenzene | 10.0 | 0.50 | µg/L | 10.0 | | 100 | | 70-130 | | | |
| Bromodichloromethane | 9.27 | 0.50 | µg/L | 10.0 | | 92.7 | | 70-130 | | | |
| Bromoform | 9.24 | 0.50 | µg/L | 10.0 | | 92.4 | | 70-130 | | | |
| **Bromomethane** | 4.84 | 1.0 | µg/L | 10.0 | | **48.4** | * | 70-130 | | | L-03 |
| 2-Butanone (MEK) | 129 | 5.0 | µg/L | 100 | | 129 | | 70-130 | | | |
| n-Butylbenzene | 9.13 | 1.0 | µg/L | 10.0 | | 91.3 | | 70-130 | | | |
| sec-Butylbenzene | 9.89 | 1.0 | µg/L | 10.0 | | 98.9 | | 70-130 | | | |
| tert-Butylbenzene | 9.83 | 1.0 | µg/L | 10.0 | | 98.3 | | 70-130 | | | |
| Carbon Disulfide | 12.5 | 5.0 | µg/L | 10.0 | | 125 | | 70-130 | | | V-36 |
| Carbon Tetrachloride | 9.31 | 0.50 | µg/L | 10.0 | | 93.1 | | 70-130 | | | |
| Chlorobenzene | 11.0 | 0.50 | µg/L | 10.0 | | 110 | | 70-130 | | | |
| Chlorodibromomethane | 9.78 | 0.50 | µg/L | 10.0 | | 97.8 | | 70-130 | | | |
| Chloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| Chloroform | 9.70 | 0.50 | µg/L | 10.0 | | 97.0 | | 70-130 | | | |
| **Chloromethane** | 13.2 | 0.60 | µg/L | 10.0 | | **132** | * | 70-130 | | | L-01, V-20 |
| 2-Chlorotoluene | 10.8 | 0.50 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 4-Chlorotoluene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 8.20 | 0.50 | µg/L | 10.0 | | 82.0 | | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 9.72 | 0.50 | µg/L | 10.0 | | 97.2 | | 70-130 | | | |
| Dibromomethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.5 | 0.50 | µg/L | 10.0 | | 105 | | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.7 | 0.50 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| 1,4-Dichlorobenzene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 11.1 | 2.0 | µg/L | 10.0 | | 111 | | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 10.5 | 0.50 | µg/L | 10.0 | | 105 | | 70-130 | | | |
| 1,1-Dichloroethane | 11.0 | 0.50 | µg/L | 10.0 | | 110 | | 70-130 | | | |
| 1,2-Dichloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| 1,1-Dichloroethylene | 10.9 | 0.50 | µg/L | 10.0 | | 109 | | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219524 - SW-846 5030B** | | | | | | | | | | | |
| **LCS (B219524-BS1)** | | | | Prepared & Analyzed: 12/18/18 | | | | | | | |
| cis-1,2-Dichloroethylene | 10.6 | 0.50 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| trans-1,2-Dichloroethylene | 11.5 | 1.0 | µg/L | 10.0 | | 115 | | 70-130 | | | |
| 1,2-Dichloropropane | 11.1 | 0.50 | µg/L | 10.0 | | 111 | | 70-130 | | | |
| 1,3-Dichloropropane | 9.82 | 0.50 | µg/L | 10.0 | | 98.2 | | 70-130 | | | |
| 2,2-Dichloropropane | 7.90 | 0.50 | µg/L | 10.0 | | 79.0 | | 70-130 | | | |
| 1,1-Dichloropropene | 9.53 | 0.50 | µg/L | 10.0 | | 95.3 | | 70-130 | | | |
| cis-1,3-Dichloropropene | 9.53 | 0.50 | µg/L | 10.0 | | 95.3 | | 70-130 | | | |
| trans-1,3-Dichloropropene | 9.41 | 0.50 | µg/L | 10.0 | | 94.1 | | 70-130 | | | |
| Ethylbenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| Hexachlorobutadiene | 11.2 | 0.60 | µg/L | 10.0 | | 112 | | 70-130 | | | |
| 2-Hexanone (MBK) | 120 | 5.0 | µg/L | 100 | | 120 | | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.5 | 0.50 | µg/L | 10.0 | | 105 | | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 9.46 | 0.50 | µg/L | 10.0 | | 94.6 | | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 9.36 | 0.50 | µg/L | 10.0 | | 93.6 | | 70-130 | | | |
| Methylene Chloride | 12.8 | 5.0 | µg/L | 10.0 | | 128 | | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 121 | 5.0 | µg/L | 100 | | 121 | | 70-130 | | | |
| Naphthalene | 7.77 | 2.0 | µg/L | 10.0 | | 77.7 | | 70-130 | | | |
| n-Propylbenzene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| Styrene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| Tetrachloroethylene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| **Tetrahydrofuran** | 13.1 | 10 | µg/L | 10.0 | | **131** | * | 70-130 | | | L-01 |
| Toluene | 10.0 | 1.0 | µg/L | 10.0 | | 100 | | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 9.50 | 0.50 | µg/L | 10.0 | | 95.0 | | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 9.97 | 0.50 | µg/L | 10.0 | | 99.7 | | 70-130 | | | |
| 1,1,1-Trichloroethane | 8.84 | 0.50 | µg/L | 10.0 | | 88.4 | | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| Trichloroethylene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 9.40 | 2.0 | µg/L | 10.0 | | 94.0 | | 70-130 | | | |
| 1,2,3-Trichloropropane | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 11.0 | 0.50 | µg/L | 10.0 | | 110 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.35 | 0.50 | µg/L | 10.0 | | 93.5 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| Vinyl Chloride | 11.0 | 1.0 | µg/L | 10.0 | | 110 | | 70-130 | | | |
| m+p Xylene | 20.9 | 2.0 | µg/L | 20.0 | | 104 | | 70-130 | | | |
| o-Xylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *22.9* | | µg/L | 25.0 | | 91.4 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *24.7* | | µg/L | 25.0 | | 98.9 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.3* | | µg/L | 25.0 | | 101 | | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219592 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219592-BLK1)** | | | | Prepared: 12/18/18 Analyzed: 12/19/18 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *85.2* | | µg/L | 100 | | 85.2 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *53.5* | | µg/L | 100 | | 53.5 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *69.0* | | µg/L | 100 | | 69.0 | 30-130 | | | |
| **LCS (B219592-BS1)** | | | | Prepared: 12/18/18 Analyzed: 12/19/18 | | | | | | |
| Acenaphthene (SIM) | 31.8 | 7.5 | µg/L | 50.0 | | 63.5 | 40-140 | | | |
| Acenaphthylene (SIM) | 32.6 | 5.0 | µg/L | 50.0 | | 65.2 | 40-140 | | | |
| Anthracene (SIM) | 34.0 | 5.0 | µg/L | 50.0 | | 68.0 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 32.8 | 1.2 | µg/L | 50.0 | | 65.6 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 34.8 | 2.5 | µg/L | 50.0 | | 69.5 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 35.7 | 1.2 | µg/L | 50.0 | | 71.4 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 34.8 | 12 | µg/L | 50.0 | | 69.7 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 35.4 | 5.0 | µg/L | 50.0 | | 70.8 | 40-140 | | | |
| Chrysene (SIM) | 32.2 | 5.0 | µg/L | 50.0 | | 64.5 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 35.4 | 2.5 | µg/L | 50.0 | | 70.7 | 40-140 | | | |
| Fluoranthene (SIM) | 33.5 | 12 | µg/L | 50.0 | | 67.0 | 40-140 | | | |
| Fluorene (SIM) | 32.4 | 25 | µg/L | 50.0 | | 64.9 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 36.8 | 2.5 | µg/L | 50.0 | | 73.5 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 33.2 | 25 | µg/L | 50.0 | | 66.4 | 40-140 | | | |
| Naphthalene (SIM) | 30.6 | 25 | µg/L | 50.0 | | 61.2 | 40-140 | | | |
| Phenanthrene (SIM) | 32.6 | 1.2 | µg/L | 50.0 | | 65.2 | 40-140 | | | |
| Pyrene (SIM) | 31.4 | 25 | µg/L | 50.0 | | 62.9 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *67.5* | | µg/L | 100 | | 67.5 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *51.4* | | µg/L | 100 | | 51.4 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *52.5* | | µg/L | 100 | | 52.5 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219592 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219592-BSD1)** | | | | Prepared: 12/18/18 Analyzed: 12/19/18 | | | | | | |
| Acenaphthene (SIM) | 34.0 | 7.5 | µg/L | 50.0 | | 68.0 | 40-140 | 6.92 | 20 | |
| Acenaphthylene (SIM) | 35.0 | 5.0 | µg/L | 50.0 | | 70.0 | 40-140 | 7.11 | 20 | |
| Anthracene (SIM) | 36.2 | 5.0 | µg/L | 50.0 | | 72.4 | 40-140 | 6.34 | 20 | |
| Benzo(a)anthracene (SIM) | 35.4 | 1.2 | µg/L | 50.0 | | 70.8 | 40-140 | 7.70 | 20 | |
| Benzo(a)pyrene (SIM) | 37.8 | 2.5 | µg/L | 50.0 | | 75.6 | 40-140 | 8.34 | 20 | |
| Benzo(b)fluoranthene (SIM) | 38.7 | 1.2 | µg/L | 50.0 | | 77.4 | 40-140 | 8.13 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 38.0 | 12 | µg/L | 50.0 | | 75.9 | 40-140 | 8.52 | 20 | |
| Benzo(k)fluoranthene (SIM) | 39.0 | 5.0 | µg/L | 50.0 | | 77.9 | 40-140 | 9.62 | 20 | |
| Chrysene (SIM) | 34.8 | 5.0 | µg/L | 50.0 | | 69.5 | 40-140 | 7.46 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 39.4 | 2.5 | µg/L | 50.0 | | 78.7 | 40-140 | 10.7 | 20 | |
| Fluoranthene (SIM) | 35.1 | 12 | µg/L | 50.0 | | 70.2 | 40-140 | 4.59 | 20 | |
| Fluorene (SIM) | 35.1 | 25 | µg/L | 50.0 | | 70.2 | 40-140 | 7.92 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 40.3 | 2.5 | µg/L | 50.0 | | 80.6 | 40-140 | 9.21 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 36.7 | 25 | µg/L | 50.0 | | 73.4 | 40-140 | 9.87 | 20 | |
| Naphthalene (SIM) | 33.0 | 25 | µg/L | 50.0 | | 66.1 | 40-140 | 7.62 | 20 | |
| Phenanthrene (SIM) | 35.2 | 1.2 | µg/L | 50.0 | | 70.4 | 40-140 | 7.74 | 20 | |
| Pyrene (SIM) | 35.0 | 25 | µg/L | 50.0 | | 70.0 | 40-140 | 10.6 | 20 | |
| Surrogate: Nitrobenzene-d5 | *71.4* | | µg/L | 100 | | 71.4 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *53.7* | | µg/L | 100 | | 53.7 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *58.6* | | µg/L | 100 | | 58.6 | 30-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219423 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219423-BLK1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| alpha-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| Alachlor | ND | 0.20 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.20 | µg/L | | | | | | | |
| Aldrin | ND | 0.050 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.030 | µg/L | | | | | | | |
| gamma-BHC (Lindane) [2C] | ND | 0.030 | µg/L | | | | | | | |
| Chlordane | ND | 0.20 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.20 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.040 | µg/L | | | | | | | |
| Dieldrin | ND | 0.0020 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.0020 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin | ND | 0.080 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.080 | µg/L | | | | | | | |
| Heptachlor | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.050 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.50 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.50 | µg/L | | | | | | | |
| Toxaphene | ND | 1.0 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.82* | | µg/L | 2.00 | | 90.9 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.79* | | µg/L | 2.00 | | 89.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.66* | | µg/L | 2.00 | | 83.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.78* | | µg/L | 2.00 | | 89.1 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219423 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B219423-BS1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| alpha-Chlordane | 0.99 | 0.050 | µg/L | 1.00 | | 98.8 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.99 | 0.050 | µg/L | 1.00 | | 98.5 | 0-200 | | | V-06 |
| gamma-Chlordane | 0.97 | 0.050 | µg/L | 1.00 | | 97.0 | 0-200 | | | |
| gamma-Chlordane [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 101 | 0-200 | | | |
| Alachlor | 0.92 | 0.20 | µg/L | 1.00 | | 91.8 | 40-140 | | | |
| Alachlor [2C] | 0.86 | 0.20 | µg/L | 1.00 | | 85.6 | 40-140 | | | |
| Aldrin | 0.99 | 0.050 | µg/L | 1.00 | | 98.5 | 40-140 | | | |
| Aldrin [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.4 | 40-140 | | | |
| alpha-BHC | 0.96 | 0.050 | µg/L | 1.00 | | 95.5 | 40-140 | | | |
| alpha-BHC [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| beta-BHC | 0.99 | 0.050 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| beta-BHC [2C] | 0.89 | 0.050 | µg/L | 1.00 | | 89.3 | 40-140 | | | |
| delta-BHC | 0.97 | 0.050 | µg/L | 1.00 | | 97.0 | 40-140 | | | |
| delta-BHC [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 97.8 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.99 | 0.030 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| gamma-BHC (Lindane) [2C] | 1.0 | 0.030 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 105 | 40-140 | | | |
| 4,4'-DDE [2C] | 1.1 | 0.040 | µg/L | 1.00 | | 105 | 40-140 | | | |
| 4,4'-DDT | 0.95 | 0.040 | µg/L | 1.00 | | 95.2 | 40-140 | | | |
| 4,4'-DDT [2C] | 0.94 | 0.040 | µg/L | 1.00 | | 94.1 | 40-140 | | | |
| Dieldrin | 0.99 | 0.0020 | µg/L | 1.00 | | 99.1 | 40-140 | | | |
| Dieldrin [2C] | 0.97 | 0.0020 | µg/L | 1.00 | | 96.9 | 40-140 | | | |
| Endosulfan I | 0.97 | 0.050 | µg/L | 1.00 | | 97.5 | 40-140 | | | |
| Endosulfan I [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Endosulfan II | 1.0 | 0.080 | µg/L | 1.00 | | 99.5 | 40-140 | | | |
| Endosulfan II [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.1 | 40-140 | | | |
| Endosulfan Sulfate | 0.99 | 0.080 | µg/L | 1.00 | | 98.7 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.96 | 0.080 | µg/L | 1.00 | | 95.7 | 40-140 | | | |
| Endrin | 0.94 | 0.080 | µg/L | 1.00 | | 94.5 | 40-140 | | | |
| Endrin [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 93.9 | 40-140 | | | |
| Endrin Aldehyde | 0.93 | 0.080 | µg/L | 1.00 | | 92.8 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.92 | 0.080 | µg/L | 1.00 | | 91.7 | 40-140 | | | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Heptachlor | 0.97 | 0.050 | µg/L | 1.00 | | 96.7 | 40-140 | | | |
| Heptachlor [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.2 | 40-140 | | | |
| Heptachlor Epoxide | 0.98 | 0.050 | µg/L | 1.00 | | 98.4 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.3 | 40-140 | | | |
| Hexachlorobenzene | 0.97 | 0.050 | µg/L | 1.00 | | 97.2 | 40-140 | | | |
| Hexachlorobenzene [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 96.9 | 40-140 | | | |
| Methoxychlor | 0.90 | 0.50 | µg/L | 1.00 | | 89.8 | 40-140 | | | |
| Methoxychlor [2C] | 0.90 | 0.50 | µg/L | 1.00 | | 89.7 | 40-140 | | | V-05 |
| Surrogate: Decachlorobiphenyl | *1.83* | | µg/L | 2.00 | | 91.5 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.80* | | µg/L | 2.00 | | 89.9 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.69* | | µg/L | 2.00 | | 84.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.81* | | µg/L | 2.00 | | 90.4 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219423 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B219423-BSD1)** | | | | Prepared: 12/18/18 Analyzed: 12/20/18 | | | | | | |
| alpha-Chlordane | 0.97 | 0.050 | µg/L | 1.00 | | 96.8 | 0-200 | 2.04 | | |
| alpha-Chlordane [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 96.1 | 0-200 | 2.46 | | V-06 |
| gamma-Chlordane | 0.95 | 0.050 | µg/L | 1.00 | | 95.0 | 0-200 | 2.14 | | |
| gamma-Chlordane [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 98.4 | 0-200 | 2.32 | | |
| Alachlor | 0.91 | 0.20 | µg/L | 1.00 | | 91.4 | 40-140 | 0.449 | 20 | |
| Alachlor [2C] | 0.84 | 0.20 | µg/L | 1.00 | | 83.8 | 40-140 | 2.10 | 20 | |
| Aldrin | 0.96 | 0.050 | µg/L | 1.00 | | 96.2 | 40-140 | 2.41 | 20 | |
| Aldrin [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 95.1 | 40-140 | 2.32 | 20 | |
| alpha-BHC | 0.93 | 0.050 | µg/L | 1.00 | | 92.7 | 40-140 | 3.04 | 20 | |
| alpha-BHC [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 95.6 | 40-140 | 4.88 | 20 | |
| beta-BHC | 0.98 | 0.050 | µg/L | 1.00 | | 97.6 | 40-140 | 1.25 | 20 | |
| beta-BHC [2C] | 0.87 | 0.050 | µg/L | 1.00 | | 86.6 | 40-140 | 3.11 | 20 | |
| delta-BHC | 0.95 | 0.050 | µg/L | 1.00 | | 94.6 | 40-140 | 2.53 | 20 | |
| delta-BHC [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.1 | 40-140 | 3.85 | 20 | |
| gamma-BHC (Lindane) | 0.96 | 0.030 | µg/L | 1.00 | | 95.8 | 40-140 | 3.01 | 20 | |
| gamma-BHC (Lindane) [2C] | 0.97 | 0.030 | µg/L | 1.00 | | 96.6 | 40-140 | 4.01 | 20 | |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 1.94 | 20 | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 2.01 | 20 | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 1.57 | 20 | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 2.26 | 20 | |
| 4,4'-DDT | 0.94 | 0.040 | µg/L | 1.00 | | 94.1 | 40-140 | 1.11 | 20 | |
| 4,4'-DDT [2C] | 0.92 | 0.040 | µg/L | 1.00 | | 92.1 | 40-140 | 2.08 | 20 | |
| Dieldrin | 0.97 | 0.0020 | µg/L | 1.00 | | 97.0 | 40-140 | 2.08 | 20 | |
| Dieldrin [2C] | 0.95 | 0.0020 | µg/L | 1.00 | | 94.7 | 40-140 | 2.22 | 20 | |
| Endosulfan I | 0.95 | 0.050 | µg/L | 1.00 | | 95.5 | 40-140 | 2.07 | 20 | |
| Endosulfan I [2C] | 0.99 | 0.050 | µg/L | 1.00 | | 99.1 | 40-140 | 0.960 | 20 | |
| Endosulfan II | 0.97 | 0.080 | µg/L | 1.00 | | 97.4 | 40-140 | 2.19 | 20 | |
| Endosulfan II [2C] | 0.96 | 0.080 | µg/L | 1.00 | | 95.9 | 40-140 | 2.27 | 20 | |
| Endosulfan Sulfate | 0.96 | 0.080 | µg/L | 1.00 | | 96.0 | 40-140 | 2.75 | 20 | |
| Endosulfan Sulfate [2C] | 0.93 | 0.080 | µg/L | 1.00 | | 93.0 | 40-140 | 2.78 | 20 | |
| Endrin | 0.91 | 0.080 | µg/L | 1.00 | | 91.4 | 40-140 | 3.31 | 20 | |
| Endrin [2C] | 0.91 | 0.080 | µg/L | 1.00 | | 91.0 | 40-140 | 3.19 | 20 | |
| Endrin Aldehyde | 0.91 | 0.080 | µg/L | 1.00 | | 91.0 | 40-140 | 1.93 | 20 | |
| Endrin Aldehyde [2C] | 0.90 | 0.080 | µg/L | 1.00 | | 89.9 | 40-140 | 1.90 | 20 | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | 1.85 | 20 | |
| Endrin Ketone [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 99.2 | 40-140 | 1.91 | 20 | |
| Heptachlor | 0.93 | 0.050 | µg/L | 1.00 | | 93.3 | 40-140 | 3.60 | 20 | |
| Heptachlor [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 95.2 | 40-140 | 2.06 | 20 | |
| Heptachlor Epoxide | 0.96 | 0.050 | µg/L | 1.00 | | 96.2 | 40-140 | 2.23 | 20 | |
| Heptachlor Epoxide [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 92.1 | 40-140 | 2.42 | 20 | |
| Hexachlorobenzene | 0.96 | 0.050 | µg/L | 1.00 | | 95.9 | 40-140 | 1.39 | 20 | |
| Hexachlorobenzene [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.0 | 40-140 | 3.11 | 20 | |
| Methoxychlor | 0.88 | 0.50 | µg/L | 1.00 | | 88.5 | 40-140 | 1.53 | 20 | |
| Methoxychlor [2C] | 0.88 | 0.50 | µg/L | 1.00 | | 88.3 | 40-140 | 1.62 | 20 | V-05 |
| Surrogate: Decachlorobiphenyl | *1.79* | | µg/L | 2.00 | | 89.3 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.75* | | µg/L | 2.00 | | 87.6 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.67* | | µg/L | 2.00 | | 83.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.74* | | µg/L | 2.00 | | 87.2 | 30-150 | | | |

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**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219339 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B219339-BLK1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | ND | 0.075 | mg/L | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0786* | | mg/L | 0.100 | | 78.6 | 50-150 | | | |
| **LCS (B219339-BS1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | 0.678 | 0.075 | mg/L | 1.00 | | 67.8 | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0803* | | mg/L | 0.100 | | 80.3 | 50-150 | | | |
| **LCS Dup (B219339-BSD1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| CT ETPH | 0.687 | 0.075 | mg/L | 1.00 | | 68.7 | 60-120 | 1.38 | 30 | |
| Surrogate: 2-Fluorobiphenyl | *0.0790* | | mg/L | 0.100 | | 79.0 | 50-150 | | | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219408 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B219408-BLK1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| Antimony | ND | 5.0 | µg/L | | | | | | | |
| Arsenic | ND | 2.0 | µg/L | | | | | | | |
| Barium | ND | 50 | µg/L | | | | | | | |
| Beryllium | ND | 2.0 | µg/L | | | | | | | |
| Cadmium | ND | 2.5 | µg/L | | | | | | | |
| Chromium | ND | 5.0 | µg/L | | | | | | | |
| Copper | ND | 25 | µg/L | | | | | | | |
| Lead | ND | 5.0 | µg/L | | | | | | | |
| Nickel | ND | 25 | µg/L | | | | | | | |
| Selenium | ND | 25 | µg/L | | | | | | | |
| Silver | ND | 2.5 | µg/L | | | | | | | |
| Thallium | ND | 1.0 | µg/L | | | | | | | |
| Vanadium | ND | 25 | µg/L | | | | | | | |
| Zinc | ND | 50 | µg/L | | | | | | | |
| **LCS (B219408-BS1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| Antimony | 529 | 10 | µg/L | 500 | | 106 | 80-120 | | | |
| Arsenic | 525 | 4.0 | µg/L | 500 | | 105 | 80-120 | | | |
| Barium | 528 | 100 | µg/L | 500 | | 106 | 80-120 | | | |
| Beryllium | 511 | 4.0 | µg/L | 500 | | 102 | 80-120 | | | |
| Cadmium | 532 | 5.0 | µg/L | 500 | | 106 | 80-120 | | | |
| Chromium | 533 | 10 | µg/L | 500 | | 107 | 80-120 | | | |
| Copper | 1030 | 50 | µg/L | 1000 | | 103 | 80-120 | | | |
| Lead | 531 | 10 | µg/L | 500 | | 106 | 80-120 | | | |
| Nickel | 532 | 50 | µg/L | 500 | | 106 | 80-120 | | | |
| Selenium | 514 | 50 | µg/L | 500 | | 103 | 80-120 | | | |
| Silver | 521 | 5.0 | µg/L | 500 | | 104 | 80-120 | | | |
| Thallium | 526 | 2.0 | µg/L | 500 | | 105 | 80-120 | | | |
| Vanadium | 527 | 50 | µg/L | 500 | | 105 | 80-120 | | | |
| Zinc | 1040 | 100 | µg/L | 1000 | | 104 | 80-120 | | | |
| **LCS Dup (B219408-BSD1)** | | | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| Antimony | 525 | 10 | µg/L | 500 | | 105 | 80-120 | 0.687 | 20 | |
| Arsenic | 517 | 4.0 | µg/L | 500 | | 103 | 80-120 | 1.61 | 20 | |
| Barium | 524 | 100 | µg/L | 500 | | 105 | 80-120 | 0.778 | 20 | |
| Beryllium | 505 | 4.0 | µg/L | 500 | | 101 | 80-120 | 1.15 | 20 | |
| Cadmium | 521 | 5.0 | µg/L | 500 | | 104 | 80-120 | 2.15 | 20 | |
| Chromium | 530 | 10 | µg/L | 500 | | 106 | 80-120 | 0.479 | 20 | |
| Copper | 1030 | 50 | µg/L | 1000 | | 103 | 80-120 | 0.0326 | 20 | |
| Lead | 523 | 10 | µg/L | 500 | | 105 | 80-120 | 1.43 | 20 | |
| Nickel | 529 | 50 | µg/L | 500 | | 106 | 80-120 | 0.702 | 20 | |
| Selenium | 505 | 50 | µg/L | 500 | | 101 | 80-120 | 1.71 | 20 | |
| Silver | 517 | 5.0 | µg/L | 500 | | 103 | 80-120 | 0.856 | 20 | |
| Thallium | 516 | 2.0 | µg/L | 500 | | 103 | 80-120 | 1.90 | 20 | |
| Vanadium | 525 | 50 | µg/L | 500 | | 105 | 80-120 | 0.336 | 20 | |
| Zinc | 1040 | 100 | µg/L | 1000 | | 104 | 80-120 | 0.593 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B219408 - SW-846 3005A** | | | | | | | | | | |
| **Duplicate (B219408-DUP1)** | | **Source: 18L0583-03** | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| Antimony | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Arsenic | ND | 2.0 | µg/L | | 2.01 | | | NC | 20 | |
| Barium | 643 | 50 | µg/L | | 649 | | | 0.955 | 20 | |
| Beryllium | ND | 2.0 | µg/L | | ND | | | NC | 20 | |
| Cadmium | ND | 2.5 | µg/L | | ND | | | NC | 20 | |
| Chromium | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Copper | ND | 25 | µg/L | | ND | | | NC | 20 | |
| Lead | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Nickel | ND | 25 | µg/L | | ND | | | NC | 20 | |
| Selenium | ND | 25 | µg/L | | ND | | | NC | 20 | |
| Silver | ND | 2.5 | µg/L | | ND | | | NC | 20 | |
| Thallium | ND | 1.0 | µg/L | | ND | | | NC | 20 | |
| Vanadium | ND | 25 | µg/L | | ND | | | NC | 20 | |
| Zinc | ND | 50 | µg/L | | ND | | | NC | 20 | |
| **Matrix Spike (B219408-MS1)** | | **Source: 18L0583-03** | | Prepared: 12/17/18 Analyzed: 12/18/18 | | | | | | |
| Antimony | 537 | 10 | µg/L | 500 | ND | 107 | 75-125 | | | |
| Arsenic | 535 | 4.0 | µg/L | 500 | ND | 107 | 75-125 | | | |
| Barium | 1210 | 100 | µg/L | 500 | 649 | 112 | 75-125 | | | |
| Beryllium | 505 | 4.0 | µg/L | 500 | ND | 101 | 75-125 | | | |
| Cadmium | 527 | 5.0 | µg/L | 500 | ND | 105 | 75-125 | | | |
| Chromium | 539 | 10 | µg/L | 500 | ND | 108 | 75-125 | | | |
| Copper | 1030 | 50 | µg/L | 1000 | ND | 103 | 75-125 | | | |
| Lead | 553 | 10 | µg/L | 500 | 2.78 | 110 | 75-125 | | | |
| Nickel | 533 | 50 | µg/L | 500 | ND | 107 | 75-125 | | | |
| Selenium | 516 | 50 | µg/L | 500 | ND | 103 | 75-125 | | | |
| Silver | 384 | 5.0 | µg/L | 500 | ND | 76.7 | 75-125 | | | |
| Thallium | 562 | 2.0 | µg/L | 500 | ND | 112 | 75-125 | | | |
| Vanadium | 547 | 50 | µg/L | 500 | ND | 109 | 75-125 | | | |
| Zinc | 1040 | 100 | µg/L | 1000 | ND | 104 | 75-125 | | | |
| **Batch B219714 - SW-846 7470A Prep** | | | | | | | | | | |
| **Blank (B219714-BLK1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | |
| **LCS (B219714-BS1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Mercury | 0.00204 | 0.00010 | mg/L | 0.00200 | | 102 | 80-120 | | | |
| **LCS Dup (B219714-BSD1)** | | | | Prepared: 12/20/18 Analyzed: 12/21/18 | | | | | | |
| Mercury | 0.00201 | 0.00010 | mg/L | 0.00200 | | 100 | 80-120 | 1.70 | 20 | |

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BREAKDOWN REPORT

**Lab Sample ID:** **S030580-PEM1** **Analyzed:** **12/20/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 8.27 |
| Endrin [1] | 6.39 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.91 |
| Endrin [2] | 5.68 |

BREAKDOWN REPORT

**Lab Sample ID:** **S030580-PEM2** **Analyzed:** **12/21/2018**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 8.69 |
| Endrin [1] | 6.61 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 8.01 |
| Endrin [2] | 6.70 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B219423-BS1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 7.429 | 7.398 | 7.458 | 1.0 | |
| | 2 | 7.442 | 7.412 | 7.472 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.980 | 6.950 | 7.010 | 1.0 | |
| | 2 | 7.003 | 6.973 | 7.033 | 1.1 | 0.0 |
| 4,4'-DDT | 1 | 7.645 | 7.614 | 7.674 | 0.95 | |
| | 2 | 7.684 | 7.654 | 7.714 | 0.94 | 1.1 |
| Alachlor | 1 | 6.399 | 6.369 | 6.429 | 0.92 | |
| | 2 | 6.165 | 6.135 | 6.195 | 0.86 | 6.7 |
| Aldrin | 1 | 6.310 | 6.280 | 6.340 | 0.99 | |
| | 2 | 6.232 | 6.203 | 6.263 | 0.97 | 2.0 |
| alpha-BHC | 1 | 5.573 | 5.543 | 5.603 | 0.96 | |
| | 2 | 5.504 | 5.474 | 5.534 | 1.0 | 4.1 |
| alpha-Chlordane | 1 | 6.927 | 6.897 | 6.957 | 0.99 | |
| | 2 | 6.876 | 6.846 | 6.906 | 0.99 | 0.0 |
| beta-BHC | 1 | 5.833 | 5.803 | 5.863 | 0.99 | |
| | 2 | 5.782 | 5.752 | 5.812 | 0.89 | 10.6 |
| delta-BHC | 1 | 5.955 | 5.924 | 5.984 | 0.97 | |
| | 2 | 5.975 | 5.945 | 6.005 | 0.98 | 1.0 |
| Dieldrin | 1 | 7.208 | 7.177 | 7.237 | 0.99 | |
| | 2 | 7.121 | 7.090 | 7.150 | 0.97 | 2.0 |
| Endosulfan I | 1 | 7.029 | 6.998 | 7.058 | 0.97 | |
| | 2 | 6.918 | 6.888 | 6.948 | 1.0 | 2.0 |
| Endosulfan II | 1 | 7.553 | 7.522 | 7.582 | 1.0 | |
| | 2 | 7.514 | 7.483 | 7.543 | 0.98 | 2.0 |
| Endosulfan Sulfate | 1 | 8.188 | 8.158 | 8.218 | 0.99 | |
| | 2 | 7.991 | 7.962 | 8.022 | 0.96 | 3.1 |
| Endrin | 1 | 7.384 | 7.353 | 7.413 | 0.94 | |
| | 2 | 7.350 | 7.320 | 7.380 | 0.94 | 1.1 |
| Endrin Aldehyde | 1 | 7.876 | 7.846 | 7.906 | 0.93 | |
| | 2 | 7.778 | 7.748 | 7.808 | 0.92 | 1.1 |
| Endrin Ketone | 1 | 8.373 | 8.343 | 8.403 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B219423-BS1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 8.353 | 8.323 | 8.383 | 1.0 | 9.5 |
| gamma-BHC (Lindane) | 1 | 5.780 | 5.749 | 5.809 | 0.99 | |
| | 2 | 5.729 | 5.699 | 5.759 | 1.0 | 1.0 |
| gamma-Chlordane | 1 | 6.830 | 6.799 | 6.859 | 0.97 | |
| | 2 | 6.769 | 6.739 | 6.799 | 1.0 | 3.1 |
| Heptachlor | 1 | 6.100 | 6.070 | 6.130 | 0.97 | |
| | 2 | 6.014 | 5.984 | 6.044 | 0.97 | 0.0 |
| Heptachlor Epoxide | 1 | 6.739 | 6.709 | 6.769 | 0.98 | |
| | 2 | 6.634 | 6.604 | 6.664 | 0.94 | 4.2 |
| Hexachlorobenzene | 1 | 5.466 | 5.436 | 5.496 | 0.97 | |
| | 2 | 5.415 | 5.385 | 5.445 | 0.97 | 0.0 |
| Methoxychlor | 1 | 8.015 | 7.985 | 8.045 | 0.90 | |
| | 2 | 8.203 | 8.174 | 8.234 | 0.90 | 0.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B219423-BSD1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 7.427 | 7.398 | 7.458 | 1.0 | |
| | 2 | 7.442 | 7.412 | 7.472 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.979 | 6.950 | 7.010 | 1.0 | |
| | 2 | 7.003 | 6.973 | 7.033 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.644 | 7.614 | 7.674 | 0.94 | |
| | 2 | 7.685 | 7.654 | 7.714 | 0.92 | 2.2 |
| Alachlor | 1 | 6.398 | 6.369 | 6.429 | 0.91 | |
| | 2 | 6.165 | 6.135 | 6.195 | 0.84 | 8.0 |
| Aldrin | 1 | 6.309 | 6.280 | 6.340 | 0.96 | |
| | 2 | 6.232 | 6.203 | 6.263 | 0.95 | 1.1 |
| alpha-BHC | 1 | 5.572 | 5.543 | 5.603 | 0.93 | |
| | 2 | 5.504 | 5.474 | 5.534 | 0.96 | 3.2 |
| alpha-Chlordane | 1 | 6.926 | 6.897 | 6.957 | 0.97 | |
| | 2 | 6.876 | 6.846 | 6.906 | 0.96 | 1.0 |
| beta-BHC | 1 | 5.833 | 5.803 | 5.863 | 0.98 | |
| | 2 | 5.782 | 5.752 | 5.812 | 0.87 | 11.9 |
| delta-BHC | 1 | 5.954 | 5.924 | 5.984 | 0.95 | |
| | 2 | 5.975 | 5.945 | 6.005 | 0.94 | 1.1 |
| Dieldrin | 1 | 7.206 | 7.177 | 7.237 | 0.97 | |
| | 2 | 7.120 | 7.090 | 7.150 | 0.95 | 2.1 |
| Endosulfan I | 1 | 7.028 | 6.998 | 7.058 | 0.95 | |
| | 2 | 6.918 | 6.888 | 6.948 | 0.99 | 3.1 |
| Endosulfan II | 1 | 7.552 | 7.522 | 7.582 | 0.97 | |
| | 2 | 7.513 | 7.483 | 7.543 | 0.96 | 1.0 |
| Endosulfan Sulfate | 1 | 8.188 | 8.158 | 8.218 | 0.96 | |
| | 2 | 7.991 | 7.962 | 8.022 | 0.93 | 3.2 |
| Endrin | 1 | 7.383 | 7.353 | 7.413 | 0.91 | |
| | 2 | 7.350 | 7.320 | 7.380 | 0.91 | 0.0 |
| Endrin Aldehyde | 1 | 7.875 | 7.846 | 7.906 | 0.91 | |
| | 2 | 7.778 | 7.748 | 7.808 | 0.90 | 1.1 |
| Endrin Ketone | 1 | 8.372 | 8.343 | 8.403 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B219423-BSD1 Date(s) Analyzed 12/20/2018 12/20/2018

Instrument ID (1): ECD6 Instrument ID (2): ECD6

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 8.353 | 8.323 | 8.383 | 0.99 | 1.0 |
| gamma-BHC (Lindane) | 1 | 5.779 | 5.749 | 5.809 | 0.96 | |
| | 2 | 5.729 | 5.699 | 5.759 | 0.97 | 1.0 |
| gamma-Chlordane | 1 | 6.828 | 6.799 | 6.859 | 0.95 | |
| | 2 | 6.769 | 6.739 | 6.799 | 0.98 | 3.1 |
| Heptachlor | 1 | 6.099 | 6.070 | 6.130 | 0.93 | |
| | 2 | 6.015 | 5.984 | 6.044 | 0.95 | 2.1 |
| Heptachlor Epoxide | 1 | 6.738 | 6.709 | 6.769 | 0.96 | |
| | 2 | 6.634 | 6.604 | 6.664 | 0.92 | 4.3 |
| Hexachlorobenzene | 1 | 5.466 | 5.436 | 5.496 | 0.96 | |
| | 2 | 5.415 | 5.385 | 5.445 | 0.94 | 2.1 |
| Methoxychlor | 1 | 8.014 | 7.985 | 8.045 | 0.88 | |
| | 2 | 8.203 | 8.174 | 8.234 | 0.88 | 1.1 |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| DL-01 | Elevated reporting limits for all volatile compounds due to foaming sample matrix. |
| L-01 | Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side. |
| L-03 | Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side. |
| V-05 | Continuing calibration did not meet method specifications and was biased on the low side for this compound. |
| V-06 | Continuing calibration did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Soil*** | |
| CT ETPH | CT |
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 7471B in Soil*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |
| 1,1-Dichloroethane | CT,NH,NY,ME |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2019 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2019 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

1810585

# Con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

## CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



Rev 04.05.12

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Telephone:
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticides | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | # of Containers | | | | | | | 18 | 4 | 6 | 6 | 11 | 2 | | | | | | |
| | ** Preservation | | | | | | | I | N | I | I | H | I | | | | | | |
| | ***Container Code | | | | | | | A | P | A | A | V | A | | | | | | |
| 1 | MW-AG30-121218-1 | 12/12/18 | 0720 | | X | GW | U | X | | | | | | | | | | | |
| 2 | MW-AJ13D-121218-1 | 12/12/18 | 0855 | | X | GW | U | X | | | | | | | | | | | |
| 3 | MW-Y15-121218-1 | 12/12/18 | 0920 | | X | GW | U | X | X | | | | | | | | | | |
| 4 | MW-Y15D-121218-1 | 12/12/18 | 0815 | | X | GW | U | X | | | | | | | | | | | |
| 5 | MW-AJ13-121218-1 | 12/12/18 | 1015 | | X | GW | U | X | X | X | X | X | | | | | | | |
| 6 | MW-Y9-121218-1 | 12/12/18 | 1120 | | X | GW | U | X | X | X | X | X | X | | | | | | |
| 7 | Trip Blank | 12/12/18 | LAB | | | | | | | | | X | | | | | | | |
| 8 | MW-AH16D-121218-1 | 12/12/18 | 1225 | | X | GW | U | X | | | | | | | | | | | |
| 9 | MW-AH16-121218-1 | 12/12/18 | 1315 | | X | GW | U | X | X | X | X | X | | | | | | | |
| 10 | MW-Y9D-121218-1 | 12/12/18 | | | X | GW | U | X | | | | | | | | | | | |

ANALYSIS REQUESTED

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| Relinquished by: (signature) | Date/Time: |
|---|---|
| 12/12/18 | 1500 |
| Received by: (signature) Tom Mace 12/12/18 | Date/Time: 1500 |
| Relinquished by: (signature) Tom Mace 12/12/18 | Date/Time: 1835 |
| Received by: (signature) 5.6 / 4.2 / 4.7 / 4.6 | Date/Time: 12/12/18 1835 |

Turnaround ††
◉ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut: GWPC/SWPC
Other:

Is your project MCP or RCP ?
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

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ACCREDITED IN ACCORDANCE WITH nelac
NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

1810585

# CHAIN OF CUSTODY RECORD

con-test® ANALYTICAL LABORATORY
Phone: 413-525-2332
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www.contestlabs.com
39 Spruce Street
East longmeadow, MA 01028

Rev 04.05.12



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / J. Crespo

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | MW-AA12D-121218-1 | 12/12/18 | 1415 | | X | GW | U | X | | | | |
| 12 | MW-Y26-121218-1 | 12/12/18 | 1450 | | X | GW | U | X | | | | |

| | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 |
|---|---|---|---|---|---|
| # of Containers | 4 | | | | |
| ** Preservation | I | N | I | I | H |
| ***Container Code | A | P | A | A | V |

ANALYSIS REQUESTED

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| 12/12/18 | 1500 |
| Received by: (signature) 10 M Mase 12/12/18 | 1500 |
| Relinquished by: (signature) 10 M Mase 12/12/18 | 1835 |
| Received by: (signature) 5.6/4.2/4.7/4.6 12/12/18 | 1835 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

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ACCREDITED IN ACCORDANCE WITH nelac
NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** Aecom

**Received By** RAP Date 12/12/18 Time 1835

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 1 Actual Temp - 5.6/4.2/4.7/4.6
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? f
Proper Media/Containers Used? T Is splitting samples required? f
Were trip blanks received? T On COC? T
Do all samples have the proper pH? Acid pH<2 Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 38 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 14 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 4 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

X:\HPCHEM\1\DATA\A121918.SEC\A1219007.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | A1219007.D |
| Data File Path | X:\HPCHEM\1\DATA\A121918.SEC\ |
| Operator | RMW |
| Date Acquired | 12/19/2018 2:52 |
| Acq. Method File | ETPH18.M |
| Sample Name | ETPH 1500 |
| Instrument Name | 5890DFID |

| Name | Ret Time | Target Response | Avg response | *%D+/-20 |
|---|---|---|---|---|
| c - 9 | 1.15 | 327606 | 350752 | 7 |
| c - 10 | 1.51 | 334495 | 350752 | 5 |
| c - 12 | 2.24 | 339447 | 350752 | 3 |
| c - 14 | 2.90 | 353794 | 350752 | -1 |
| c - 16 | 3.50 | 360218 | 350752 | -3 |
| c - 18 | 4.08 | 361246 | 350752 | -3 |
| c - 20 | 4.70 | 364842 | 350752 | -4 |
| c - 22 | 5.21 | 365996 | 350752 | -4 |
| c - 24 | 5.65 | 362893 | 350752 | -3 |
| c - 26 | 6.05 | 360251 | 350752 | -3 |
| c - 28 | 6.40 | 360731 | 350752 | -3 |
| c - 30 | 6.74 | 362820 | 350752 | -3 |
| c - 32 | 7.05 | 346583 | 350752 | 1 |
| c - 34 | 7.34 | 333347 | 350752 | 5 |
| c - 36 | 7.62 | 327015 | 350752 | 7 |

*One compound allowed %D </=50%

**Samples**

18L0583-05
18L0583-06
18L0583-09
18L0729-01

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** Antea USA, Inc. - MA

***Project Location:*** 411 West Main St., Avon, CT

***Project Number:*** 18L0717

***Laboratory Sample ID(s):***
18L0717-01 thru 18L0717-09

***Sample Date(s):***
12/12/2018

*List RCP Methods Used:*
SW-846 8260C

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington **Position:** **Project Manager**

**Printed Name:** **Lisa A. Worthington** **Date:** **12/21/18**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 29, 2019

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19D0971

Enclosed are results of analyses for samples received by the laboratory on April 18, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 7

19D0971-01 7

19D0971-02 9

19D0971-03 11

19D0971-04 17

19D0971-05 18

19D0971-06 19

19D0971-07 21

19D0971-08 22

19D0971-09 26

19D0971-10 27

Sample Preparation Information 28

QC Data 29

PCB Homologues by GC/MS Water 29

B229101 29

Volatile Organic Compounds by GC/MS 30

B228877 30

Semivolatile Organic Compounds by GC/MS 33

B229257 33

Organochloride Pesticides by GC/ECD 35

B229105 35

Petroleum Hydrocarbons Analyses 38

B228884 38

# Table of Contents (continued)


Metals Analyses (Total) 39

B229042 39

B229201 40

Pesticides Degradation Report 41

Dual Column RPD Report 43

Flag/Qualifier Summary 47

Certifications 48

Chain of Custody/Sample Receipt 52

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 4/29/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 19D0971

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| VOC Trip Blank | 19D0971-01 | Trip Blank Water | | SW-846 8260C | |
| MW-AM16-041819-1 | 19D0971-02 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 8081B | |
| MW-AJ13-041819-1 | 19D0971-03 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-AM16D-041819-1 | 19D0971-04 | Ground Water | | EPA 680 Modified | |
| MW-AJ13D-041819-1 | 19D0971-05 | Ground Water | | EPA 680 Modified | |
| MW-AV17-041819-1 | 19D0971-06 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 8081B | |
| MW-U20-041719-1 | 19D0971-07 | Ground Water | | CTDEP ETPH | |
| MW-AA12-041819-1 | 19D0971-08 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| MW-AG10-041819-1 | 19D0971-09 | Ground Water | | EPA 680 Modified | |
| MW-AA12D-041819-1 | 19D0971-10 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

**CTDEP ETPH**

**Qualifications:**

**L-07**

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

**CT ETPH**

B228884-BSD1

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Pentachlorobiphenyls**

19D0971-02[MW-AM16-041819-1], 19D0971-03[MW-AJ13-041819-1], 19D0971-04[MW-AM16D-041819-1], 19D0971-05[MW-AJ13D-041819-1], 19D0971-06[MW-AV17-041819-1], 19D0971-08[MW-AA12-041819-1], 19D0971-09[MW-AG10-041819-1], 19D0971-10[MW-AA12D-041819-1], B229101-BLK1, B229101-BS1, B229101-BSD1, S035219-CCV1

**SW-846 8081B**

**Qualifications:**

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Hexachlorobenzene**

19D0971-02[MW-AM16-041819-1], 19D0971-06[MW-AV17-041819-1]

**SW-846 8260C**

**Qualifications:**

**V-34**

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Bromomethane**

19D0971-01[VOC Trip Blank], 19D0971-03[MW-AJ13-041819-1], 19D0971-08[MW-AA12-041819-1], B228877-BLK1, B228877-BS1, S035037-CCV1

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**

B228877-BS1, S035037-CCV1

**Carbon Disulfide**

B228877-BS1, S035037-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/18/2019 00:00
**Sample ID: 19D0971-01**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/18/2019 00:00
**Sample ID: 19D0971-01**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:58 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/23/19 18:58 |
| Toluene-d8 | 102 | 70-130 | | 4/23/19 18:58 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/23/19 18:58 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AM16-041819-1**
Sampled: 4/18/2019 07:47

**Sample ID: 19D0971-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Dichlorobiphenyls | 0.0019 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Trichlorobiphenyls | 0.0061 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Tetrachlorobiphenyls | 0.013 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |
| Total Polychlorinated biphenyls | 0.021 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:04 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 59.2 | 50-125 | | 4/26/19 20:04 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AM16-041819-1**
Sampled: 4/18/2019 07:47
**Sample ID: 19D0971-02**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Aldrin [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| alpha-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| beta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| delta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.029 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| 4,4'-DDD [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| 4,4'-DDE [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| 4,4'-DDT [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Endosulfan I [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Endosulfan II [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Endosulfan sulfate [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Endrin [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Endrin aldehyde [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Endrin ketone [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Heptachlor [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Heptachlor epoxide [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Hexachlorobenzene [1] | ND | 0.049 | µg/L | 1 | V-20 | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Methoxychlor [1] | ND | 0.49 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |
| Toxaphene [1] | ND | 0.98 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 0:47 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 59.5 | 30-150 | | 4/27/19 0:47 |
| Decachlorobiphenyl [2] | 81.2 | 30-150 | | 4/27/19 0:47 |
| Tetrachloro-m-xylene [1] | 72.6 | 30-150 | | 4/27/19 0:47 |
| Tetrachloro-m-xylene [2] | 71.6 | 30-150 | | 4/27/19 0:47 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AJ13-041819-1**
Sampled: 4/18/2019 08:25

**Sample ID: 19D0971-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Dichlorobiphenyls | 0.12 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Trichlorobiphenyls | 1.2 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Tetrachlorobiphenyls | 0.36 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Pentachlorobiphenyls | 0.052 | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Hexachlorobiphenyls | 0.0036 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |
| Total Polychlorinated biphenyls | 1.7 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 20:41 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 60.8 | 50-125 | | 4/26/19 20:41 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AJ13-041819-1**
Sampled: 4/18/2019 08:25
**Sample ID: 19D0971-03**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AJ13-041819-1**
Sampled: 4/18/2019 08:25
**Sample ID: 19D0971-03**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:04 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/23/19 23:04 |
| Toluene-d8 | 102 | 70-130 | | 4/23/19 23:04 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/23/19 23:04 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AJ13-041819-1**
Sampled: 4/18/2019 08:25

**Sample ID: 19D0971-03**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Benzo(a)anthracene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Benzo(b)fluoranthene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Benzo(g,h,i)perylene (SIM) | ND | 0.51 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Fluoranthene (SIM) | ND | 0.51 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Phenanthrene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/25/19 | 4/26/19 19:21 | IMR |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 105 | 30-130 | | 4/26/19 19:21 |
| 2-Fluorobiphenyl | 68.9 | 30-130 | | 4/26/19 19:21 |
| p-Terphenyl-d14 | 65.9 | 30-130 | | 4/26/19 19:21 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AJ13-041819-1**
Sampled: 4/18/2019 08:25
**Sample ID: 19D0971-03**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.20 | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/25/19 14:23 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 68.7 | 50-150 | | 4/25/19 14:23 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AJ13-041819-1**
Sampled: 4/18/2019 08:25
**Sample ID: 19D0971-03**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Arsenic | 1.2 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Barium | 50 | 10 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/26/19 10:46 | MJH |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/26/19 | 4/26/19 13:30 | AJL |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:04 | MJH |
| Zinc | 4000 | 500 | µg/L | 50 | | SW-846 6020B | 4/24/19 | 4/26/19 10:42 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AM16D-041819-1**
Sampled: 4/18/2019 09:30

**Sample ID: 19D0971-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Trichlorobiphenyls | 0.0028 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Tetrachlorobiphenyls | 0.011 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Pentachlorobiphenyls | 0.0023 | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |
| Total Polychlorinated biphenyls | 0.016 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:19 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 54.3 | 50-125 | | 4/26/19 21:19 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AJ13D-041819-1**
Sampled: 4/18/2019 09:45

**Sample ID: 19D0971-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Dichlorobiphenyls | 0.024 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Trichlorobiphenyls | 0.026 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Tetrachlorobiphenyls | 0.0081 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Pentachlorobiphenyls | 0.0038 | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |
| Total Polychlorinated biphenyls | 0.062 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 21:56 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 50.6 | 50-125 | | 4/26/19 21:56 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AV17-041819-1**
Sampled: 4/18/2019 10:37
**Sample ID: 19D0971-06**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 22:34 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 61.9 | 50-125 | | 4/26/19 22:34 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AV17-041819-1**
Sampled: 4/18/2019 10:37
**Sample ID: 19D0971-06**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Aldrin [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| alpha-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| beta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| delta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.029 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Chlordane [1] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| 4,4'-DDD [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| 4,4'-DDE [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| 4,4'-DDT [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Dieldrin [1] | ND | 0.0019 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Endosulfan I [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Endosulfan II [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Endosulfan sulfate [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Endrin [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Endrin aldehyde [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Endrin ketone [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Heptachlor [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Heptachlor epoxide [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Hexachlorobenzene [1] | ND | 0.049 | µg/L | 1 | V-20 | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Methoxychlor [1] | ND | 0.49 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |
| Toxaphene [1] | ND | 0.97 | µg/L | 1 | | SW-846 8081B | 4/25/19 | 4/27/19 1:14 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 71.1 | 30-150 | | 4/27/19 1:14 |
| Decachlorobiphenyl [2] | 95.1 | 30-150 | | 4/27/19 1:14 |
| Tetrachloro-m-xylene [1] | 74.0 | 30-150 | | 4/27/19 1:14 |
| Tetrachloro-m-xylene [2] | 72.9 | 30-150 | | 4/27/19 1:14 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-U20-041719-1**
Sampled: 4/17/2019 07:15
**Sample ID: 19D0971-07**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/25/19 14:43 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 83.3 | 50-150 | | 4/25/19 14:43 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AA12-041819-1**
Sampled: 4/18/2019 11:55

**Sample ID: 19D0971-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0097 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Dichlorobiphenyls | 0.28 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Trichlorobiphenyls | 0.35 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Tetrachlorobiphenyls | 0.12 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Pentachlorobiphenyls | 0.016 | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |
| Total Polychlorinated biphenyls | 0.77 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:11 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 60.3 | 50-125 | | 4/26/19 23:11 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AA12-041819-1**
Sampled: 4/18/2019 11:55
**Sample ID: 19D0971-08**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AA12-041819-1**
Sampled: 4/18/2019 11:55
**Sample ID: 19D0971-08**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 23:34 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 4/23/19 23:34 |
| Toluene-d8 | 101 | 70-130 | | 4/23/19 23:34 |
| 4-Bromofluorobenzene | 103 | 70-130 | | 4/23/19 23:34 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AA12-041819-1**
Sampled: 4/18/2019 11:55
**Sample ID: 19D0971-08**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Arsenic | 0.97 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Barium | 220 | 10 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/26/19 10:49 | MJH |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Lead | 1.8 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/26/19 | 4/26/19 13:31 | AJL |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |
| Zinc | 840 | 10 | µg/L | 1 | | SW-846 6020B | 4/24/19 | 4/25/19 17:08 | MJH |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971

Date Received: 4/18/2019

**Field Sample #: MW-AG10-041819-1**
Sampled: 4/18/2019 12:02

**Sample ID: 19D0971-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0098 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Dichlorobiphenyls | 0.085 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Trichlorobiphenyls | 0.036 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Tetrachlorobiphenyls | 0.026 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |
| Total Polychlorinated biphenyls | 0.16 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/26/19 23:49 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 57.3 | 50-125 | | 4/26/19 23:49 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0971
Date Received: 4/18/2019
**Field Sample #: MW-AA12D-041819-1**
Sampled: 4/18/2019 10:45
**Sample ID: 19D0971-10**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Dichlorobiphenyls | 0.0056 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Trichlorobiphenyls | 0.016 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Tetrachlorobiphenyls | 0.024 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Pentachlorobiphenyls | 0.0042 | 0.0020 | µg/L | 1 | V-06 | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |
| Total Polychlorinated biphenyls | 0.050 | | µg/L | 1 | | EPA 680 Modified | 4/25/19 | 4/27/19 0:26 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 81.3 | 50-125 | | 4/27/19 0:26 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-03 [MW-AJ13-041819-1] | B228884 | 980 | 1.00 | 04/23/19 |
| 19D0971-07 [MW-U20-041719-1] | B228884 | 980 | 1.00 | 04/23/19 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-02 [MW-AM16-041819-1] | B229101 | 1020 | 1.00 | 04/25/19 |
| 19D0971-03 [MW-AJ13-041819-1] | B229101 | 1020 | 1.00 | 04/25/19 |
| 19D0971-04 [MW-AM16D-041819-1] | B229101 | 1020 | 1.00 | 04/25/19 |
| 19D0971-05 [MW-AJ13D-041819-1] | B229101 | 1000 | 1.00 | 04/25/19 |
| 19D0971-06 [MW-AV17-041819-1] | B229101 | 1020 | 1.00 | 04/25/19 |
| 19D0971-08 [MW-AA12-041819-1] | B229101 | 990 | 1.00 | 04/25/19 |
| 19D0971-09 [MW-AG10-041819-1] | B229101 | 1030 | 1.00 | 04/25/19 |
| 19D0971-10 [MW-AA12D-041819-1] | B229101 | 980 | 1.00 | 04/25/19 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-03 [MW-AJ13-041819-1] | B229042 | 50.0 | 50.0 | 04/24/19 |
| 19D0971-08 [MW-AA12-041819-1] | B229042 | 50.0 | 50.0 | 04/24/19 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-03 [MW-AJ13-041819-1] | B229201 | 6.00 | 6.00 | 04/26/19 |
| 19D0971-08 [MW-AA12-041819-1] | B229201 | 6.00 | 6.00 | 04/26/19 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-02 [MW-AM16-041819-1] | B229105 | 1020 | 10.0 | 04/25/19 |
| 19D0971-06 [MW-AV17-041819-1] | B229105 | 1030 | 10.0 | 04/25/19 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-01 [VOC Trip Blank] | B228877 | 5 | 5.00 | 04/23/19 |
| 19D0971-03 [MW-AJ13-041819-1] | B228877 | 5 | 5.00 | 04/23/19 |
| 19D0971-08 [MW-AA12-041819-1] | B228877 | 5 | 5.00 | 04/23/19 |

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0971-03 [MW-AJ13-041819-1] | B229257 | 990 | 1.00 | 04/25/19 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229101 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B229101-BLK1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | V-06 |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.118* | | µg/L | 0.200 | | 59.0 | 50-125 | | | |
| **LCS (B229101-BS1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| Monochlorobiphenyls | 0.13 | 0.0010 | µg/L | 0.200 | | 65.7 | 40-140 | | | |
| Dichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 78.1 | 40-140 | | | |
| Trichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 78.9 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 82.4 | 40-140 | | | |
| Pentachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 91.8 | 40-140 | | | V-06 |
| Hexachlorobiphenyls | 0.32 | 0.0020 | µg/L | 0.400 | | 79.4 | 40-140 | | | |
| Heptachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 78.2 | 40-140 | | | |
| Octachlorobiphenyls | 0.49 | 0.0030 | µg/L | 0.600 | | 82.2 | 40-140 | | | |
| Nonachlorobiphenyls | 0.98 | 0.0050 | µg/L | 1.00 | | 98.4 | 40-140 | | | |
| Decachlorobiphenyl | 0.91 | 0.0050 | µg/L | 1.00 | | 91.2 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.128* | | µg/L | 0.200 | | 63.9 | 50-125 | | | |
| **LCS Dup (B229101-BSD1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| Monochlorobiphenyls | 0.12 | 0.0010 | µg/L | 0.200 | | 59.7 | 40-140 | 9.62 | 50 | |
| Dichlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 71.1 | 40-140 | 9.40 | 50 | |
| Trichlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 73.4 | 40-140 | 7.23 | 50 | |
| Tetrachlorobiphenyls | 0.31 | 0.0020 | µg/L | 0.400 | | 76.3 | 40-140 | 7.65 | 50 | |
| Pentachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 86.3 | 40-140 | 6.14 | 50 | V-06 |
| Hexachlorobiphenyls | 0.30 | 0.0020 | µg/L | 0.400 | | 75.7 | 40-140 | 4.66 | 50 | |
| Heptachlorobiphenyls | 0.45 | 0.0030 | µg/L | 0.600 | | 74.9 | 40-140 | 4.42 | 50 | |
| Octachlorobiphenyls | 0.47 | 0.0030 | µg/L | 0.600 | | 78.9 | 40-140 | 3.98 | 50 | |
| Nonachlorobiphenyls | 0.86 | 0.0050 | µg/L | 1.00 | | 85.7 | 40-140 | 13.8 | 50 | |
| Decachlorobiphenyl | 0.88 | 0.0050 | µg/L | 1.00 | | 88.4 | 40-140 | 3.20 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.119* | | µg/L | 0.200 | | 59.5 | 50-125 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228877 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228877-BLK1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | V-34 |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228877 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228877-BLK1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.7* | | µg/L | 25.0 | | 103 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.5* | | µg/L | 25.0 | | 102 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *26.2* | | µg/L | 25.0 | | 105 | 70-130 | | | |
| **LCS (B228877-BS1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| Acetone | 98.4 | 10 | µg/L | 100 | | 98.4 | 70-130 | | | V-36 |
| Acrylonitrile | 9.76 | 2.0 | µg/L | 10.0 | | 97.6 | 70-130 | | | |
| Benzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Bromobenzene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Bromodichloromethane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Bromoform | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| Bromomethane | 10.9 | 1.0 | µg/L | 10.0 | | 109 | 70-130 | | | V-34 |
| 2-Butanone (MEK) | 98.9 | 5.0 | µg/L | 100 | | 98.9 | 70-130 | | | |
| n-Butylbenzene | 9.32 | 1.0 | µg/L | 10.0 | | 93.2 | 70-130 | | | |
| sec-Butylbenzene | 9.59 | 1.0 | µg/L | 10.0 | | 95.9 | 70-130 | | | |
| tert-Butylbenzene | 9.66 | 1.0 | µg/L | 10.0 | | 96.6 | 70-130 | | | |
| Carbon Disulfide | 102 | 5.0 | µg/L | 100 | | 102 | 70-130 | | | V-36 |
| Carbon Tetrachloride | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Chlorodibromomethane | 11.0 | 0.50 | µg/L | 10.0 | | 110 | 70-130 | | | |
| Chloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Chloroform | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Chloromethane | 9.01 | 0.60 | µg/L | 10.0 | | 90.1 | 70-130 | | | |
| 2-Chlorotoluene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 4-Chlorotoluene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.82 | 1.0 | µg/L | 10.0 | | 98.2 | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Dibromomethane | 11.6 | 0.50 | µg/L | 10.0 | | 116 | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 1,4-Dichlorobenzene | 9.97 | 0.50 | µg/L | 10.0 | | 99.7 | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 9.20 | 2.0 | µg/L | 10.0 | | 92.0 | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,1-Dichloroethane | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,2-Dichloroethane | 10.9 | 0.50 | µg/L | 10.0 | | 109 | 70-130 | | | |
| 1,1-Dichloroethylene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228877 - SW-846 5030B** | | | | | | | | | | |
| **LCS (B228877-BS1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| cis-1,2-Dichloroethylene | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| trans-1,2-Dichloroethylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,2-Dichloropropane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,3-Dichloropropane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 2,2-Dichloropropane | 9.44 | 0.50 | µg/L | 10.0 | | 94.4 | 70-130 | | | |
| 1,1-Dichloropropene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| cis-1,3-Dichloropropene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| trans-1,3-Dichloropropene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| Ethylbenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Hexachlorobutadiene | 11.1 | 0.60 | µg/L | 10.0 | | 111 | 70-130 | | | |
| 2-Hexanone (MBK) | 97.0 | 5.0 | µg/L | 100 | | 97.0 | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 9.59 | 0.50 | µg/L | 10.0 | | 95.9 | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 9.88 | 0.50 | µg/L | 10.0 | | 98.8 | 70-130 | | | |
| Methylene Chloride | 10.4 | 5.0 | µg/L | 10.0 | | 104 | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 98.5 | 5.0 | µg/L | 100 | | 98.5 | 70-130 | | | |
| Naphthalene | 10.2 | 2.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| n-Propylbenzene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Styrene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 9.82 | 0.50 | µg/L | 10.0 | | 98.2 | 70-130 | | | |
| Tetrachloroethylene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Tetrahydrofuran | 9.58 | 10 | µg/L | 10.0 | | 95.8 | 70-130 | | | |
| Toluene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,1,1-Trichloroethane | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Trichloroethylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 10.6 | 2.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,2,3-Trichloropropane | 9.69 | 0.50 | µg/L | 10.0 | | 96.9 | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.32 | 0.50 | µg/L | 10.0 | | 93.2 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 9.62 | 0.50 | µg/L | 10.0 | | 96.2 | 70-130 | | | |
| Vinyl Chloride | 10.3 | 1.0 | µg/L | 10.0 | | 103 | 70-130 | | | |
| m+p Xylene | 20.2 | 2.0 | µg/L | 20.0 | | 101 | 70-130 | | | |
| o-Xylene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.0* | | µg/L | 25.0 | | 100 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.0* | | µg/L | 25.0 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.4* | | µg/L | 25.0 | | 102 | 70-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229257 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B229257-BLK1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *97.4* | | µg/L | 100 | | 97.4 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *64.5* | | µg/L | 100 | | 64.5 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *84.5* | | µg/L | 100 | | 84.5 | 30-130 | | | |
| **LCS (B229257-BS1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| Acenaphthene (SIM) | 38.6 | 6.0 | µg/L | 50.0 | | 77.2 | 40-140 | | | |
| Acenaphthylene (SIM) | 39.8 | 4.0 | µg/L | 50.0 | | 79.5 | 40-140 | | | |
| Anthracene (SIM) | 41.8 | 4.0 | µg/L | 50.0 | | 83.6 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 39.9 | 1.0 | µg/L | 50.0 | | 79.8 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 45.5 | 2.0 | µg/L | 50.0 | | 91.0 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 44.5 | 1.0 | µg/L | 50.0 | | 89.0 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 41.7 | 10 | µg/L | 50.0 | | 83.4 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 45.1 | 4.0 | µg/L | 50.0 | | 90.2 | 40-140 | | | |
| Chrysene (SIM) | 40.9 | 4.0 | µg/L | 50.0 | | 81.8 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 43.5 | 2.0 | µg/L | 50.0 | | 87.0 | 40-140 | | | |
| Fluoranthene (SIM) | 39.9 | 10 | µg/L | 50.0 | | 79.9 | 40-140 | | | |
| Fluorene (SIM) | 40.9 | 20 | µg/L | 50.0 | | 81.8 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 43.5 | 2.0 | µg/L | 50.0 | | 86.9 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 40.8 | 20 | µg/L | 50.0 | | 81.6 | 40-140 | | | |
| Naphthalene (SIM) | 38.1 | 20 | µg/L | 50.0 | | 76.2 | 40-140 | | | |
| Phenanthrene (SIM) | 40.3 | 1.0 | µg/L | 50.0 | | 80.6 | 40-140 | | | |
| Pyrene (SIM) | 39.5 | 20 | µg/L | 50.0 | | 79.1 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *84.5* | | µg/L | 100 | | 84.5 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *63.2* | | µg/L | 100 | | 63.2 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *65.1* | | µg/L | 100 | | 65.1 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229257 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B229257-BSD1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| Acenaphthene (SIM) | 38.0 | 6.0 | µg/L | 50.0 | | 76.0 | 40-140 | 1.67 | 20 | |
| Acenaphthylene (SIM) | 39.3 | 4.0 | µg/L | 50.0 | | 78.6 | 40-140 | 1.21 | 20 | |
| Anthracene (SIM) | 42.0 | 4.0 | µg/L | 50.0 | | 83.9 | 40-140 | 0.430 | 20 | |
| Benzo(a)anthracene (SIM) | 39.8 | 1.0 | µg/L | 50.0 | | 79.6 | 40-140 | 0.251 | 20 | |
| Benzo(a)pyrene (SIM) | 45.3 | 2.0 | µg/L | 50.0 | | 90.6 | 40-140 | 0.397 | 20 | |
| Benzo(b)fluoranthene (SIM) | 44.4 | 1.0 | µg/L | 50.0 | | 88.8 | 40-140 | 0.315 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 41.2 | 10 | µg/L | 50.0 | | 82.4 | 40-140 | 1.25 | 20 | |
| Benzo(k)fluoranthene (SIM) | 45.2 | 4.0 | µg/L | 50.0 | | 90.4 | 40-140 | 0.221 | 20 | |
| Chrysene (SIM) | 40.9 | 4.0 | µg/L | 50.0 | | 81.9 | 40-140 | 0.0977 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 42.8 | 2.0 | µg/L | 50.0 | | 85.7 | 40-140 | 1.57 | 20 | |
| Fluoranthene (SIM) | 40.9 | 10 | µg/L | 50.0 | | 81.8 | 40-140 | 2.42 | 20 | |
| Fluorene (SIM) | 41.5 | 20 | µg/L | 50.0 | | 83.0 | 40-140 | 1.55 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 42.9 | 2.0 | µg/L | 50.0 | | 85.7 | 40-140 | 1.39 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 40.4 | 20 | µg/L | 50.0 | | 80.9 | 40-140 | 0.935 | 20 | |
| Naphthalene (SIM) | 37.7 | 20 | µg/L | 50.0 | | 75.4 | 40-140 | 1.16 | 20 | |
| Phenanthrene (SIM) | 40.0 | 1.0 | µg/L | 50.0 | | 80.0 | 40-140 | 0.797 | 20 | |
| Pyrene (SIM) | 39.5 | 20 | µg/L | 50.0 | | 79.0 | 40-140 | 0.0506 | 20 | |
| Surrogate: Nitrobenzene-d5 | *80.6* | | µg/L | 100 | | 80.6 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *57.9* | | µg/L | 100 | | 57.9 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *63.8* | | µg/L | 100 | | 63.8 | 30-130 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229105 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B229105-BLK1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| alpha-Chlordane | ND | 0.0050 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.0050 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.0050 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.0050 | µg/L | | | | | | | |
| Alachlor | ND | 0.020 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.020 | µg/L | | | | | | | |
| Aldrin | ND | 0.0050 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.0050 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.0050 | µg/L | | | | | | | |
| alpha-BHC [2C] | ND | 0.0050 | µg/L | | | | | | | |
| beta-BHC | ND | 0.0050 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.0050 | µg/L | | | | | | | |
| delta-BHC | ND | 0.0050 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.0050 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.0020 | µg/L | | | | | | | |
| gamma-BHC (Lindane) [2C] | ND | 0.0020 | µg/L | | | | | | | |
| Chlordane | ND | 0.020 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.020 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.0040 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.0040 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.0040 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.0040 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.0040 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.0040 | µg/L | | | | | | | |
| Dieldrin | ND | 0.0040 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.0040 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.0050 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.0050 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.0080 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.0080 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Endrin | ND | 0.0080 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.0080 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.0080 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.0080 | µg/L | | | | | | | |
| Heptachlor | ND | 0.0050 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.0050 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.0050 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.0050 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.0060 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.0060 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.050 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.050 | µg/L | | | | | | | |
| Toxaphene | ND | 0.10 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 0.10 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.65* | | µg/L | 2.00 | | 82.5 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.16* | | µg/L | 2.00 | | 108 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.74* | | µg/L | 2.00 | | 87.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.74* | | µg/L | 2.00 | | 87.1 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229105 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B229105-BS1)** | | | | Prepared: 04/25/19 Analyzed: 04/26/19 | | | | | | |
| alpha-Chlordane | 0.94 | 0.0050 | µg/L | 1.00 | | 93.6 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.96 | 0.0050 | µg/L | 1.00 | | 95.8 | 0-200 | | | |
| gamma-Chlordane | 0.93 | 0.0050 | µg/L | 1.00 | | 92.8 | 0-200 | | | |
| gamma-Chlordane [2C] | 0.96 | 0.0050 | µg/L | 1.00 | | 95.9 | 0-200 | | | |
| Alachlor | 0.89 | 0.020 | µg/L | 1.00 | | 88.9 | 40-140 | | | |
| Alachlor [2C] | 0.87 | 0.020 | µg/L | 1.00 | | 87.2 | 40-140 | | | |
| Aldrin | 0.91 | 0.0050 | µg/L | 1.00 | | 91.1 | 40-140 | | | |
| Aldrin [2C] | 0.91 | 0.0050 | µg/L | 1.00 | | 90.8 | 40-140 | | | |
| alpha-BHC | 0.83 | 0.0050 | µg/L | 1.00 | | 82.7 | 40-140 | | | |
| alpha-BHC [2C] | 0.84 | 0.0050 | µg/L | 1.00 | | 83.8 | 40-140 | | | |
| beta-BHC | 0.93 | 0.0050 | µg/L | 1.00 | | 92.6 | 40-140 | | | |
| beta-BHC [2C] | 0.96 | 0.0050 | µg/L | 1.00 | | 95.5 | 40-140 | | | |
| delta-BHC | 0.92 | 0.0050 | µg/L | 1.00 | | 92.4 | 40-140 | | | |
| delta-BHC [2C] | 0.92 | 0.0050 | µg/L | 1.00 | | 92.5 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.86 | 0.0020 | µg/L | 1.00 | | 86.2 | 40-140 | | | |
| gamma-BHC (Lindane) [2C] | 0.86 | 0.0020 | µg/L | 1.00 | | 85.9 | 40-140 | | | |
| 4,4'-DDD | 1.0 | 0.0040 | µg/L | 1.00 | | 102 | 40-140 | | | |
| 4,4'-DDD [2C] | 1.0 | 0.0040 | µg/L | 1.00 | | 100 | 40-140 | | | |
| 4,4'-DDE | 1.0 | 0.0040 | µg/L | 1.00 | | 99.8 | 40-140 | | | |
| 4,4'-DDE [2C] | 0.98 | 0.0040 | µg/L | 1.00 | | 98.1 | 40-140 | | | |
| 4,4'-DDT | 0.97 | 0.0040 | µg/L | 1.00 | | 96.6 | 40-140 | | | |
| 4,4'-DDT [2C] | 0.98 | 0.0040 | µg/L | 1.00 | | 98.4 | 40-140 | | | |
| Dieldrin | 0.92 | 0.0040 | µg/L | 1.00 | | 92.3 | 40-140 | | | |
| Dieldrin [2C] | 0.91 | 0.0040 | µg/L | 1.00 | | 90.6 | 40-140 | | | |
| Endosulfan I | 0.90 | 0.0050 | µg/L | 1.00 | | 90.0 | 40-140 | | | |
| Endosulfan I [2C] | 0.93 | 0.0050 | µg/L | 1.00 | | 93.0 | 40-140 | | | |
| Endosulfan II | 0.94 | 0.0080 | µg/L | 1.00 | | 94.4 | 40-140 | | | |
| Endosulfan II [2C] | 0.97 | 0.0080 | µg/L | 1.00 | | 97.1 | 40-140 | | | |
| Endosulfan Sulfate | 0.97 | 0.0080 | µg/L | 1.00 | | 97.4 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.98 | 0.0080 | µg/L | 1.00 | | 97.5 | 40-140 | | | |
| Endrin | 0.94 | 0.0080 | µg/L | 1.00 | | 94.3 | 40-140 | | | |
| Endrin [2C] | 0.96 | 0.0080 | µg/L | 1.00 | | 95.6 | 40-140 | | | |
| Endrin Aldehyde | 0.92 | 0.0080 | µg/L | 1.00 | | 91.6 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.95 | 0.0080 | µg/L | 1.00 | | 95.0 | 40-140 | | | |
| Endrin Ketone | 1.0 | 0.0080 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.0080 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Heptachlor | 0.84 | 0.0050 | µg/L | 1.00 | | 83.6 | 40-140 | | | |
| Heptachlor [2C] | 0.85 | 0.0050 | µg/L | 1.00 | | 85.1 | 40-140 | | | |
| Heptachlor Epoxide | 0.91 | 0.0050 | µg/L | 1.00 | | 90.8 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.92 | 0.0050 | µg/L | 1.00 | | 91.5 | 40-140 | | | |
| Hexachlorobenzene | 1.0 | 0.0060 | µg/L | 1.00 | | 100 | 40-140 | | | |
| Hexachlorobenzene [2C] | 1.0 | 0.0060 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Methoxychlor | 0.99 | 0.050 | µg/L | 1.00 | | 99.4 | 40-140 | | | |
| Methoxychlor [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Surrogate: Decachlorobiphenyl | *1.33* | | µg/L | 2.00 | | 66.4 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.76* | | µg/L | 2.00 | | 88.2 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.49* | | µg/L | 2.00 | | 74.7 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.49* | | µg/L | 2.00 | | 74.6 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229105 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B229105-BSD1)** | | | | Prepared: 04/25/19 Analyzed: 04/27/19 | | | | | | |
| alpha-Chlordane | 0.97 | 0.0050 | µg/L | 1.00 | | 96.9 | 0-200 | 3.50 | | |
| alpha-Chlordane [2C] | 0.99 | 0.0050 | µg/L | 1.00 | | 99.3 | 0-200 | 3.54 | | |
| gamma-Chlordane | 0.96 | 0.0050 | µg/L | 1.00 | | 96.2 | 0-200 | 3.68 | | |
| gamma-Chlordane [2C] | 0.99 | 0.0050 | µg/L | 1.00 | | 99.4 | 0-200 | 3.65 | | |
| Alachlor | 0.91 | 0.020 | µg/L | 1.00 | | 91.3 | 40-140 | 2.72 | 20 | |
| Alachlor [2C] | 0.90 | 0.020 | µg/L | 1.00 | | 90.5 | 40-140 | 3.65 | 20 | |
| Aldrin | 0.95 | 0.0050 | µg/L | 1.00 | | 95.3 | 40-140 | 4.46 | 20 | |
| Aldrin [2C] | 0.95 | 0.0050 | µg/L | 1.00 | | 94.6 | 40-140 | 4.08 | 20 | |
| alpha-BHC | 0.91 | 0.0050 | µg/L | 1.00 | | 91.2 | 40-140 | 9.78 | 20 | |
| alpha-BHC [2C] | 0.93 | 0.0050 | µg/L | 1.00 | | 92.6 | 40-140 | 9.90 | 20 | |
| beta-BHC | 0.97 | 0.0050 | µg/L | 1.00 | | 97.2 | 40-140 | 4.85 | 20 | |
| beta-BHC [2C] | 1.0 | 0.0050 | µg/L | 1.00 | | 101 | 40-140 | 5.23 | 20 | |
| delta-BHC | 0.98 | 0.0050 | µg/L | 1.00 | | 98.1 | 40-140 | 6.07 | 20 | |
| delta-BHC [2C] | 0.98 | 0.0050 | µg/L | 1.00 | | 98.4 | 40-140 | 6.14 | 20 | |
| gamma-BHC (Lindane) | 0.94 | 0.0020 | µg/L | 1.00 | | 93.7 | 40-140 | 8.30 | 20 | |
| gamma-BHC (Lindane) [2C] | 0.94 | 0.0020 | µg/L | 1.00 | | 93.6 | 40-140 | 8.57 | 20 | |
| 4,4'-DDD | 1.1 | 0.0040 | µg/L | 1.00 | | 106 | 40-140 | 4.13 | 20 | |
| 4,4'-DDD [2C] | 1.0 | 0.0040 | µg/L | 1.00 | | 104 | 40-140 | 4.18 | 20 | |
| 4,4'-DDE | 1.0 | 0.0040 | µg/L | 1.00 | | 104 | 40-140 | 3.87 | 20 | |
| 4,4'-DDE [2C] | 1.0 | 0.0040 | µg/L | 1.00 | | 102 | 40-140 | 4.16 | 20 | |
| 4,4'-DDT | 1.0 | 0.0040 | µg/L | 1.00 | | 101 | 40-140 | 4.20 | 20 | |
| 4,4'-DDT [2C] | 1.0 | 0.0040 | µg/L | 1.00 | | 102 | 40-140 | 3.57 | 20 | |
| Dieldrin | 0.95 | 0.0040 | µg/L | 1.00 | | 95.2 | 40-140 | 3.09 | 20 | |
| Dieldrin [2C] | 0.93 | 0.0040 | µg/L | 1.00 | | 93.3 | 40-140 | 2.86 | 20 | |
| Endosulfan I | 0.93 | 0.0050 | µg/L | 1.00 | | 93.2 | 40-140 | 3.47 | 20 | |
| Endosulfan I [2C] | 0.96 | 0.0050 | µg/L | 1.00 | | 96.0 | 40-140 | 3.12 | 20 | |
| Endosulfan II | 0.98 | 0.0080 | µg/L | 1.00 | | 97.9 | 40-140 | 3.71 | 20 | |
| Endosulfan II [2C] | 1.0 | 0.0080 | µg/L | 1.00 | | 101 | 40-140 | 3.52 | 20 | |
| Endosulfan Sulfate | 1.0 | 0.0080 | µg/L | 1.00 | | 101 | 40-140 | 3.97 | 20 | |
| Endosulfan Sulfate [2C] | 1.0 | 0.0080 | µg/L | 1.00 | | 102 | 40-140 | 4.08 | 20 | |
| Endrin | 0.98 | 0.0080 | µg/L | 1.00 | | 97.6 | 40-140 | 3.48 | 20 | |
| Endrin [2C] | 0.99 | 0.0080 | µg/L | 1.00 | | 98.8 | 40-140 | 3.30 | 20 | |
| Endrin Aldehyde | 0.96 | 0.0080 | µg/L | 1.00 | | 95.7 | 40-140 | 4.37 | 20 | |
| Endrin Aldehyde [2C] | 0.99 | 0.0080 | µg/L | 1.00 | | 99.1 | 40-140 | 4.24 | 20 | |
| Endrin Ketone | 1.0 | 0.0080 | µg/L | 1.00 | | 104 | 40-140 | 3.62 | 20 | |
| Endrin Ketone [2C] | 1.0 | 0.0080 | µg/L | 1.00 | | 105 | 40-140 | 3.04 | 20 | |
| Heptachlor | 0.90 | 0.0050 | µg/L | 1.00 | | 90.4 | 40-140 | 7.90 | 20 | |
| Heptachlor [2C] | 0.92 | 0.0050 | µg/L | 1.00 | | 91.9 | 40-140 | 7.71 | 20 | |
| Heptachlor Epoxide | 0.94 | 0.0050 | µg/L | 1.00 | | 94.2 | 40-140 | 3.72 | 20 | |
| Heptachlor Epoxide [2C] | 0.95 | 0.0050 | µg/L | 1.00 | | 94.9 | 40-140 | 3.67 | 20 | |
| Hexachlorobenzene | 1.1 | 0.0060 | µg/L | 1.00 | | 107 | 40-140 | 6.94 | 20 | |
| Hexachlorobenzene [2C] | 1.1 | 0.0060 | µg/L | 1.00 | | 108 | 40-140 | 6.57 | 20 | |
| Methoxychlor | 1.0 | 0.050 | µg/L | 1.00 | | 103 | 40-140 | 3.74 | 20 | |
| Methoxychlor [2C] | 1.1 | 0.050 | µg/L | 1.00 | | 106 | 40-140 | 3.68 | 20 | |
| Surrogate: Decachlorobiphenyl | *1.47* | | µg/L | 2.00 | | 73.7 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.04* | | µg/L | 2.00 | | 102 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.55* | | µg/L | 2.00 | | 77.3 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.54* | | µg/L | 2.00 | | 77.2 | 30-150 | | | |

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**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228884 - SW-846 3510C** | | | | | | | | | | | |
| **Blank (B228884-BLK1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| CT ETPH | ND | 0.15 | mg/L | | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0754* | | mg/L | 0.100 | | 75.4 | | 50-150 | | | |
| **LCS (B228884-BS1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| CT ETPH | 0.638 | 0.15 | mg/L | 1.00 | | 63.8 | | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0788* | | mg/L | 0.100 | | 78.8 | | 50-150 | | | |
| **LCS Dup (B228884-BSD1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| **CT ETPH** | 0.568 | 0.15 | mg/L | 1.00 | | **56.8** | * | 60-120 | 11.6 | 30 | L-07 |
| Surrogate: 2-Fluorobiphenyl | *0.0666* | | mg/L | 0.100 | | 66.6 | | 50-150 | | | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229042 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B229042-BLK1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Antimony | ND | 1.0 | µg/L | | | | | | | |
| Arsenic | ND | 0.40 | µg/L | | | | | | | |
| Barium | ND | 10 | µg/L | | | | | | | |
| Beryllium | ND | 0.40 | µg/L | | | | | | | |
| Cadmium | ND | 0.50 | µg/L | | | | | | | |
| Chromium | ND | 1.0 | µg/L | | | | | | | |
| Copper | ND | 5.0 | µg/L | | | | | | | |
| Lead | ND | 1.0 | µg/L | | | | | | | |
| Nickel | ND | 5.0 | µg/L | | | | | | | |
| Selenium | ND | 5.0 | µg/L | | | | | | | |
| Silver | ND | 0.50 | µg/L | | | | | | | |
| Thallium | ND | 0.20 | µg/L | | | | | | | |
| Vanadium | ND | 5.0 | µg/L | | | | | | | |
| Zinc | ND | 10 | µg/L | | | | | | | |
| **LCS (B229042-BS1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Antimony | 522 | 10 | µg/L | 500 | | 104 | 80-120 | | | |
| Arsenic | 521 | 4.0 | µg/L | 500 | | 104 | 80-120 | | | |
| Barium | 516 | 100 | µg/L | 500 | | 103 | 80-120 | | | |
| Beryllium | 515 | 4.0 | µg/L | 500 | | 103 | 80-120 | | | |
| Cadmium | 515 | 5.0 | µg/L | 500 | | 103 | 80-120 | | | |
| Chromium | 508 | 10 | µg/L | 500 | | 102 | 80-120 | | | |
| Copper | 1030 | 50 | µg/L | 1000 | | 103 | 80-120 | | | |
| Lead | 515 | 10 | µg/L | 500 | | 103 | 80-120 | | | |
| Nickel | 525 | 50 | µg/L | 500 | | 105 | 80-120 | | | |
| Selenium | 515 | 50 | µg/L | 500 | | 103 | 80-120 | | | |
| Silver | 517 | 5.0 | µg/L | 500 | | 103 | 80-120 | | | |
| Thallium | 503 | 2.0 | µg/L | 500 | | 101 | 80-120 | | | |
| Vanadium | 487 | 50 | µg/L | 500 | | 97.5 | 80-120 | | | |
| Zinc | 1040 | 100 | µg/L | 1000 | | 104 | 80-120 | | | |
| **LCS Dup (B229042-BSD1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Antimony | 519 | 10 | µg/L | 500 | | 104 | 80-120 | 0.572 | 20 | |
| Arsenic | 518 | 4.0 | µg/L | 500 | | 104 | 80-120 | 0.651 | 20 | |
| Barium | 508 | 100 | µg/L | 500 | | 102 | 80-120 | 1.47 | 20 | |
| Beryllium | 514 | 4.0 | µg/L | 500 | | 103 | 80-120 | 0.282 | 20 | |
| Cadmium | 510 | 5.0 | µg/L | 500 | | 102 | 80-120 | 0.889 | 20 | |
| Chromium | 506 | 10 | µg/L | 500 | | 101 | 80-120 | 0.382 | 20 | |
| Copper | 1020 | 50 | µg/L | 1000 | | 102 | 80-120 | 1.18 | 20 | |
| Lead | 509 | 10 | µg/L | 500 | | 102 | 80-120 | 1.18 | 20 | |
| Nickel | 520 | 50 | µg/L | 500 | | 104 | 80-120 | 0.936 | 20 | |
| Selenium | 513 | 50 | µg/L | 500 | | 103 | 80-120 | 0.281 | 20 | |
| Silver | 517 | 5.0 | µg/L | 500 | | 103 | 80-120 | 0.0701 | 20 | |
| Thallium | 498 | 2.0 | µg/L | 500 | | 99.6 | 80-120 | 0.923 | 20 | |
| Vanadium | 485 | 50 | µg/L | 500 | | 97.1 | 80-120 | 0.413 | 20 | |
| Zinc | 1020 | 100 | µg/L | 1000 | | 102 | 80-120 | 1.52 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229201 - SW-846 7470A Prep** | | | | | | | | | | |
| **Blank (B229201-BLK1)** | | | | Prepared & Analyzed: 04/26/19 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | |
| **LCS (B229201-BS1)** | | | | Prepared & Analyzed: 04/26/19 | | | | | | |
| Mercury | 0.00397 | 0.00010 | mg/L | 0.00400 | | 99.2 | 80-120 | | | |
| **LCS Dup (B229201-BSD1)** | | | | Prepared & Analyzed: 04/26/19 | | | | | | |
| Mercury | 0.00409 | 0.00010 | mg/L | 0.00400 | | 102 | 80-120 | 2.94 | 20 | |

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BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM1** **Analyzed:** **04/25/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 6.43 |
| Endrin [1] | 5.07 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.66 |
| Endrin [2] | 5.83 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM2** **Analyzed:** **04/25/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 6.15 |
| Endrin [1] | 4.87 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.46 |
| Endrin [2] | 5.83 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM3** **Analyzed:** **04/25/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 5.71 |
| Endrin [1] | 4.02 |

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BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM3** **Analyzed:** **04/25/2019**

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 6.93 |
| Endrin [2] | 4.75 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM4** **Analyzed:** **04/26/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 6.33 |
| Endrin [1] | 5.04 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.72 |
| Endrin [2] | 5.82 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM6** **Analyzed:** **04/26/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 4.32 |
| Endrin [1] | 4.04 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 5.50 |
| Endrin [2] | 5.20 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS**

Lab Sample ID: B229105-BS1 Date(s) Analyzed: 04/26/2019 04/26/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.922 | 6.893 | 6.953 | 1.0 | |
| | 2 | 6.836 | 6.805 | 6.865 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.498 | 6.469 | 6.529 | 1.0 | |
| | 2 | 6.429 | 6.399 | 6.459 | 0.98 | 2.0 |
| 4,4'-DDT | 1 | 7.128 | 7.099 | 7.159 | 0.97 | |
| | 2 | 7.062 | 7.032 | 7.092 | 0.98 | 1.0 |
| Alachlor | 1 | 5.963 | 5.932 | 5.992 | 0.89 | |
| | 2 | 5.680 | 5.649 | 5.709 | 0.87 | 2.3 |
| Aldrin | 1 | 5.862 | 5.832 | 5.892 | 0.91 | |
| | 2 | 5.721 | 5.691 | 5.751 | 0.91 | 0.0 |
| alpha-BHC | 1 | 5.205 | 5.175 | 5.235 | 0.83 | |
| | 2 | 5.102 | 5.072 | 5.132 | 0.84 | 1.2 |
| alpha-Chlordane | 1 | 6.434 | 6.405 | 6.465 | 0.94 | |
| | 2 | 6.299 | 6.268 | 6.328 | 0.96 | 2.1 |
| beta-BHC | 1 | 5.442 | 5.412 | 5.472 | 0.93 | |
| | 2 | 5.342 | 5.312 | 5.372 | 0.96 | 3.2 |
| delta-BHC | 1 | 5.547 | 5.517 | 5.577 | 0.92 | |
| | 2 | 5.503 | 5.473 | 5.533 | 0.92 | 0.0 |
| Dieldrin | 1 | 6.694 | 6.665 | 6.725 | 0.92 | |
| | 2 | 6.515 | 6.485 | 6.545 | 0.91 | 1.1 |
| Endosulfan I | 1 | 6.525 | 6.495 | 6.555 | 0.90 | |
| | 2 | 6.329 | 6.299 | 6.359 | 0.93 | 3.3 |
| Endosulfan II | 1 | 7.020 | 6.990 | 7.050 | 0.94 | |
| | 2 | 6.876 | 6.845 | 6.905 | 0.97 | 3.1 |
| Endosulfan Sulfate | 1 | 7.663 | 7.633 | 7.693 | 0.97 | |
| | 2 | 7.334 | 7.303 | 7.363 | 0.98 | 1.0 |
| Endrin | 1 | 6.857 | 6.827 | 6.887 | 0.94 | |
| | 2 | 6.721 | 6.690 | 6.750 | 0.96 | 2.1 |
| Endrin Aldehyde | 1 | 7.332 | 7.301 | 7.361 | 0.92 | |
| | 2 | 7.124 | 7.093 | 7.153 | 0.95 | 3.2 |
| Endrin Ketone | 1 | 7.873 | 7.843 | 7.903 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B229105-BS1 Date(s) Analyzed: 04/26/2019 04/26/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.724 | 7.694 | 7.754 | 1.0 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.388 | 5.358 | 5.418 | 0.86 | |
| | 2 | 5.290 | 5.261 | 5.321 | 0.86 | 0.0 |
| gamma-Chlordane | 1 | 6.344 | 6.315 | 6.375 | 0.93 | |
| | 2 | 6.202 | 6.172 | 6.232 | 0.96 | 3.2 |
| Heptachlor | 1 | 5.674 | 5.645 | 5.705 | 0.84 | |
| | 2 | 5.535 | 5.505 | 5.565 | 0.85 | 1.2 |
| Heptachlor Epoxide | 1 | 6.259 | 6.229 | 6.289 | 0.91 | |
| | 2 | 6.077 | 6.046 | 6.106 | 0.92 | 1.1 |
| Hexachlorobenzene | 1 | 5.107 | 5.077 | 5.137 | 1.0 | |
| | 2 | 5.027 | 4.997 | 5.057 | 1.0 | 0.0 |
| Methoxychlor | 1 | 7.512 | 7.481 | 7.541 | 0.99 | |
| | 2 | 7.601 | 7.570 | 7.630 | 1.0 | 1.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B229105-BSD1 Date(s) Analyzed: 04/27/2019 04/27/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.922 | 6.893 | 6.953 | 1.1 | |
| | 2 | 6.835 | 6.805 | 6.865 | 1.0 | 9.5 |
| 4,4'-DDE | 1 | 6.498 | 6.469 | 6.529 | 1.0 | |
| | 2 | 6.430 | 6.399 | 6.459 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.128 | 7.099 | 7.159 | 1.0 | |
| | 2 | 7.062 | 7.032 | 7.092 | 1.0 | 0.0 |
| Alachlor | 1 | 5.962 | 5.932 | 5.992 | 0.91 | |
| | 2 | 5.680 | 5.649 | 5.709 | 0.90 | 1.1 |
| Aldrin | 1 | 5.862 | 5.832 | 5.892 | 0.95 | |
| | 2 | 5.722 | 5.691 | 5.751 | 0.95 | 0.0 |
| alpha-BHC | 1 | 5.205 | 5.175 | 5.235 | 0.91 | |
| | 2 | 5.102 | 5.072 | 5.132 | 0.93 | 2.2 |
| alpha-Chlordane | 1 | 6.435 | 6.405 | 6.465 | 0.97 | |
| | 2 | 6.299 | 6.268 | 6.328 | 0.99 | 2.0 |
| beta-BHC | 1 | 5.441 | 5.412 | 5.472 | 0.97 | |
| | 2 | 5.342 | 5.312 | 5.372 | 1.0 | 3.1 |
| delta-BHC | 1 | 5.547 | 5.517 | 5.577 | 0.98 | |
| | 2 | 5.503 | 5.473 | 5.533 | 0.98 | 0.0 |
| Dieldrin | 1 | 6.694 | 6.665 | 6.725 | 0.95 | |
| | 2 | 6.515 | 6.485 | 6.545 | 0.93 | 2.1 |
| Endosulfan I | 1 | 6.525 | 6.495 | 6.555 | 0.93 | |
| | 2 | 6.329 | 6.299 | 6.359 | 0.96 | 3.2 |
| Endosulfan II | 1 | 7.020 | 6.990 | 7.050 | 0.98 | |
| | 2 | 6.875 | 6.845 | 6.905 | 1.0 | 2.0 |
| Endosulfan Sulfate | 1 | 7.663 | 7.633 | 7.693 | 1.0 | |
| | 2 | 7.333 | 7.303 | 7.363 | 1.0 | 0.0 |
| Endrin | 1 | 6.857 | 6.827 | 6.887 | 0.98 | |
| | 2 | 6.721 | 6.690 | 6.750 | 0.99 | 1.0 |
| Endrin Aldehyde | 1 | 7.332 | 7.301 | 7.361 | 0.96 | |
| | 2 | 7.123 | 7.093 | 7.153 | 0.99 | 3.1 |
| Endrin Ketone | 1 | 7.873 | 7.843 | 7.903 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B229105-BSD1 Date(s) Analyzed: 04/27/2019 04/27/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.725 | 7.694 | 7.754 | 1.0 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.388 | 5.358 | 5.418 | 0.94 | |
| | 2 | 5.291 | 5.261 | 5.321 | 0.94 | 0.0 |
| gamma-Chlordane | 1 | 6.344 | 6.315 | 6.375 | 0.96 | |
| | 2 | 6.203 | 6.172 | 6.232 | 0.99 | 3.1 |
| Heptachlor | 1 | 5.674 | 5.645 | 5.705 | 0.90 | |
| | 2 | 5.536 | 5.505 | 5.565 | 0.92 | 2.2 |
| Heptachlor Epoxide | 1 | 6.259 | 6.229 | 6.289 | 0.94 | |
| | 2 | 6.077 | 6.046 | 6.106 | 0.95 | 1.1 |
| Hexachlorobenzene | 1 | 5.107 | 5.077 | 5.137 | 1.1 | |
| | 2 | 5.027 | 4.997 | 5.057 | 1.1 | 0.0 |
| Methoxychlor | 1 | 7.511 | 7.481 | 7.541 | 1.0 | |
| | 2 | 7.601 | 7.570 | 7.630 | 1.1 | 9.5 |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| L-07 | Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria. |
| V-06 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |
| V-34 | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Soil*** | |
| CT ETPH | CT |
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 7471B in Soil*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |
| 1,1-Dichloroethane | CT,NH,NY,ME |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2020 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2020 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

AUB

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Phone: 413-525-2332
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Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

19D971

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Telephone:
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticides | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 19 | 2 | 2 | 3 | 8 | 4 | | | | | |
| | | | | | | | | I | N | I | I | H | I | | | | | |
| | | | | | | | | A | P | A | A | V | A | | | | | |
| 1 | VOC Trip Blank | 4/18/19 | LAB | (ED) | X | GW | U | | | | | X | | | | | | |
| 2 | MW-AM16-041819-1 | 4/18/19 | 0747 | | X | GW | U | X | | | | | X | | | | | |
| 3 | MW-AJ13-041819-1 | 4/18/19 | 0825 | | X | GW | U | X | X | X | X | X | | | | | | |
| 4 | MW-AM16D-041819-1 | 4/18/19 | 0930 | | X | GW | U | X | | | | | | | | | | |
| | ~~MW-AM16~~ | | | | | | | | | | | | | | | | | |
| 5 6 | MW-AJ13D-041819-1 | 4/18/19 | 0945 | | X | GW | U | X | | | | | | | | | | |
| 6 7 | MW-AW17-041819-1 | 4/18/19 | 1037 | | X | GW | U | X | | | | | X | | | | | |
| 7 8 | MW-U20-041719-1 | 4/17/19 | 0715 | | X | GW | U | | | | X | | | | | | | |
| 8 9 | MW-AA12-041819-1 | 4/18/19 | 1155 | | X | GW | U | X | X | | | X | | | | | | |
| 9 10 MS | MW-AG10-~~BD~~ 041819-1 | 4/18/19 | 1202 | | X | GW | U | X | | | | | | | | | | |

ANALYSIS REQUESTED

# of Containers
** Preservation
***Container Code

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

| | Date/Time |
|---|---|
| Relinquished by: (signature) | 4/18/19 |
| Received by: (signature) | 4/18/19 1:00 |
| Relinquished by: (signature) | 4/18/19 7:15 |
| Received by: (signature) | 4/18/19 19:15 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
Massachusetts:
Connecticut: GWPC/SWPC
Other:

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

4/18/19 20:40 2.7, 2.8 4/18/19 20:46



Table of Contents

ALB

**con-test®** ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

1904971

Rev. 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | | | | | | | | | # of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | I | N | I | I | H | | | | | | | | | ** Preservation |
| | | | | | | | | A | P | A | A | V | | | | | | | | | ***Container Code |
| 10 Hp | MW-AA12D-041819-1 | 4/18/19 | 10:45 | | X | GW | U | X | | | | | | | | | | | | | |

ANALYSIS REQUESTED

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

| | Date/Time |
|---|---|
| Relinquished by: (signature) | 4/18/19 |
| Received by: (signature) Amalia Cross | 4/18/19 1:00 |
| Relinquished by: (signature) Amalia Cross | 4/18/19 7:15 |
| Received by: (signature) Gaston Lafler | 4/18/19 19:15 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
**Require lab approval**

**Detection Limit Requirements**
Massachusetts:
Connecticut: GWPC/SWPC
Other:

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
**WBE/DBE Certified**

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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Gaston Lafler 4/18/19 20:40 2-7, 2-8 4/18/19 20:40



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** [illegible] Date 4/18/19 Time 20:40

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 2.7, 2.8 By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Project T Analysis ID's T Sampler Name T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? T Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid T L 2 Base ____

| Vials | # | Containers: | # | | # | | |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 24 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 8 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 2 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

C:\MSDChem\2\DATA\B042519\B0425006.D

## CT ETPH Discrimination Check

Data File Name B0425006.D
Data File Path C:\MSDChem\2\DATA\B042519\
Operator RMW
Date Acquired 4/25/2019 11:47
Acq. Method File EPH04.M
Sample Name ETPH 1500
Instrument Name GCFID2

| Name | Ret Time | Target Response | Average Response | *%D+/-20 |
|---|---|---|---|---|
| n-Nonane | 1.74 | 9119329 | 9714678 | 6 |
| n-Decane | 2.34 | 9329592 | 9714678 | 4 |
| n-Dodecane | 3.26 | 9599897 | 9714678 | 1 |
| n-Tetradecane | 3.98 | 9907296 | 9714678 | -2 |
| n-Hexadecane | 4.59 | 10049923 | 9714678 | -3 |
| n-Octadecane | 5.15 | 9908238 | 9714678 | -2 |
| n-Eicosane | 5.79 | 10206115 | 9714678 | -5 |
| n-Docosane | 6.57 | 10424524 | 9714678 | -7 |
| n-Tetracosane | 7.42 | 9487775 | 9714678 | 2 |
| n-Hexacosane | 8.23 | 10301931 | 9714678 | -6 |
| n-Octacosane | 8.97 | 10036601 | 9714678 | -3 |
| n-Triacontane | 9.65 | 9852491 | 9714678 | -1 |
| n-Dotriacontane | 10.29 | 9587831 | 9714678 | 1 |
| n-Tetratriacontane | 10.89 | 9078218 | 9714678 | 7 |
| n-Hexatriacontane | 11.53 | 8830410 | 9714678 | 9 |

**Samples**
19D0928-06
19D0971-03
19D0971-07

*One compound allowed %D</=50

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 19D0971

***Laboratory Sample ID(s):***

19D0971-01 thru 19D0971-10

***Sample Date(s):***

04/17/2019,
04/18/2019

*List RCP Methods Used:*

CTDEP ETPH, SW-846 6020B, SW-846 7470A, SW-846 8081B, SW-846 8260C, SW-846 8270D

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington **Position:** **Technical Representative**

**Printed Name:** **Lisa A. Worthington** **Date:** **04/29/19**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 24, 2019

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19D0788

Enclosed are results of analyses for samples received by the laboratory on April 15, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 8

19D0788-01 8

19D0788-02 15

19D0788-03 21

19D0788-04 23

19D0788-05 29

Sample Preparation Information 36

QC Data 38

PCB Homologues by GC/MS Water 38

B228768 38

Volatile Organic Compounds by GC/MS 40

B228644 40

Semivolatile Organic Compounds by GC/MS 46

B228876 46

Organochloride Pesticides by GC/ECD 49

B228767 49

Petroleum Hydrocarbons Analyses 54

B228769 54

Metals Analyses (Total) 55

B228607 55

B228782 56

Pesticides Degradation Report 58

Dual Column RPD Report 59

# Table of Contents (continued)

Flag/Qualifier Summary 67

Certifications 68

Chain of Custody/Sample Receipt 73

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 4/24/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 19D0788

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-28-041519-1 | 19D0788-01 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-35-041519-1 | 19D0788-02 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| VOC Trip Blank | 19D0788-03 | Trip Blank Water | | SW-846 8260C | |
| MW-D4-041519-1 | 19D0788-04 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-H29-041519-1 | 19D0788-05 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270, only PAHs were requested and reported.

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**SW-846 6020B**

**Qualifications:**

**MS-07A**

Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.

**Analyte & Samples(s) Qualified:**

**Silver**

19D0788-01[MW-28-041519-1], B228607-MS1, B228607-MSD1

**SW-846 8081B**

**Qualifications:**

**R-05**

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

**Analyte & Samples(s) Qualified:**

**alpha-BHC**

19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1

**alpha-BHC [2C]**

19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1

**gamma-BHC (Lindane)**

19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1

**gamma-BHC (Lindane) [2C]**

19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1

**V-06**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Hexachlorobenzene [2C]**

B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1

**SW-846 8260C**

**Qualifications:**

**MS-07A**

Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.

**Analyte & Samples(s) Qualified:**

**2,2-Dichloropropane**

19D0788-01[MW-28-041519-1], B228644-MS1, B228644-MSD1

**Bromomethane**

19D0788-01[MW-28-041519-1], B228644-MS1, B228644-MSD1

**MS-24**

Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.

**Analyte & Samples(s) Qualified:**

**Chloromethane**

B228644-MS1

**V-34**

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Bromomethane**

19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-03[ VOC Trip Blank], 19D0788-04[MW-D4-041519-1], 19D0788-05[MW-H29-041519-1], B228644-BLK1, B228644-BS1, B228644-MS1, B228644-MSD1, S035025-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**

B228644-BS1, B228644-MS1, B228644-MSD1, S035025-CCV1

**Carbon Disulfide**

B228644-BS1, B228644-MS1, B228644-MSD1, S035025-CCV1

**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25

**Sample ID: 19D0788-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Dichlorobiphenyls | ND | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Trichlorobiphenyls | ND | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 12:31 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 81.3 | 50-125 | | 4/23/19 12:31 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25
**Sample ID: 19D0788-01**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | MS-07A, V-34 | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | MS-07A | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25
**Sample ID: 19D0788-01**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:45 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/20/19 2:45 |
| Toluene-d8 | 100 | 70-130 | | 4/20/19 2:45 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/20/19 2:45 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25
**Sample ID: 19D0788-01**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 10:32 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 104 | 30-130 | | 4/23/19 10:32 |
| 2-Fluorobiphenyl | 69.9 | 30-130 | | 4/23/19 10:32 |
| p-Terphenyl-d14 | 96.6 | 30-130 | | 4/23/19 10:32 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25
**Sample ID: 19D0788-01**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Aldrin [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| alpha-BHC [1] | ND | 0.050 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| beta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| delta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| 4,4'-DDE [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Endosulfan I [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Endosulfan II [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Endosulfan sulfate [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Endrin [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Endrin aldehyde [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Endrin ketone [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Heptachlor [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Heptachlor epoxide [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Hexachlorobenzene [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Methoxychlor [1] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |
| Toxaphene [1] | ND | 1.0 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:20 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 62.3 | 30-150 | | 4/23/19 21:20 |
| Decachlorobiphenyl [2] | 81.2 | 30-150 | | 4/23/19 21:20 |
| Tetrachloro-m-xylene [1] | 63.7 | 30-150 | | 4/23/19 21:20 |
| Tetrachloro-m-xylene [2] | 63.2 | 30-150 | | 4/23/19 21:20 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25
**Sample ID: 19D0788-01**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/22/19 | 4/23/19 15:47 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 88.1 | 50-150 | | 4/23/19 15:47 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-28-041519-1**
Sampled: 4/15/2019 09:25
**Sample ID: 19D0788-01**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Arsenic | 0.83 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Barium | 45 | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/23/19 | 4/24/19 12:17 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | MS-07A | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:11 | QNW |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-35-041519-1**
Sampled: 4/15/2019 11:51
**Sample ID: 19D0788-02**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Dichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:08 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.4 | 50-125 | | 4/23/19 13:08 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-35-041519-1**
Sampled: 4/15/2019 11:51

**Sample ID: 19D0788-02**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-35-041519-1**
Sampled: 4/15/2019 11:51
**Sample ID: 19D0788-02**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:16 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 | | 4/20/19 3:16 |
| Toluene-d8 | 102 | 70-130 | | 4/20/19 3:16 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/20/19 3:16 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-35-041519-1**
Sampled: 4/15/2019 11:51

**Sample ID: 19D0788-02**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.31 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Acenaphthylene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Anthracene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.52 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Chrysene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Fluoranthene (SIM) | ND | 0.52 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Phenanthrene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:02 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 101 | 30-130 | | 4/23/19 11:02 |
| 2-Fluorobiphenyl | 68.1 | 30-130 | | 4/23/19 11:02 |
| p-Terphenyl-d14 | 91.9 | 30-130 | | 4/23/19 11:02 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-35-041519-1**
Sampled: 4/15/2019 11:51
**Sample ID: 19D0788-02**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Aldrin [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| alpha-BHC [1] | ND | 0.050 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| beta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| delta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| 4,4'-DDE [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Endosulfan I [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Endosulfan II [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Endosulfan sulfate [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Endrin [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Endrin aldehyde [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Endrin ketone [1] | ND | 0.079 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Heptachlor [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Heptachlor epoxide [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Hexachlorobenzene [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Methoxychlor [1] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |
| Toxaphene [1] | ND | 0.99 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 21:47 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 50.3 | 30-150 | | 4/23/19 21:47 |
| Decachlorobiphenyl [2] | 68.3 | 30-150 | | 4/23/19 21:47 |
| Tetrachloro-m-xylene [1] | 42.4 | 30-150 | | 4/23/19 21:47 |
| Tetrachloro-m-xylene [2] | 42.5 | 30-150 | | 4/23/19 21:47 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-35-041519-1**
Sampled: 4/15/2019 11:51
**Sample ID: 19D0788-02**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Arsenic | 2.9 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Barium | 160 | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Chromium | 2.0 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Copper | 11 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Lead | 29 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/23/19 | 4/24/19 12:18 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Thallium | 0.35 | 0.20 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Vanadium | 5.6 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |
| Zinc | 24 | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:15 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/15/2019 00:00
**Sample ID: 19D0788-03**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/15/2019 00:00
**Sample ID: 19D0788-03**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 0:42 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 4/20/19 0:42 |
| Toluene-d8 | 102 | 70-130 | | 4/20/19 0:42 |
| 4-Bromofluorobenzene | 101 | 70-130 | | 4/20/19 0:42 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-D4-041519-1**
Sampled: 4/15/2019 13:50

**Sample ID: 19D0788-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Dichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Trichlorobiphenyls | ND | 0.00096 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Tetrachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Pentachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Nonachlorobiphenyls | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Decachlorobiphenyl | ND | 0.0048 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 13:46 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 99.2 | 50-125 | | 4/23/19 13:46 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-D4-041519-1**
Sampled: 4/15/2019 13:50

**Sample ID: 19D0788-04**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-D4-041519-1**
Sampled: 4/15/2019 13:50
**Sample ID: 19D0788-04**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 3:46 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/20/19 3:46 |
| Toluene-d8 | 102 | 70-130 | | 4/20/19 3:46 |
| 4-Bromofluorobenzene | 104 | 70-130 | | 4/20/19 3:46 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-D4-041519-1**
Sampled: 4/15/2019 13:50

**Sample ID: 19D0788-04**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.31 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.51 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Fluoranthene (SIM) | ND | 0.51 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Phenanthrene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 11:31 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 116 | 30-130 | | 4/23/19 11:31 |
| 2-Fluorobiphenyl | 75.5 | 30-130 | | 4/23/19 11:31 |
| p-Terphenyl-d14 | 88.7 | 30-130 | | 4/23/19 11:31 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-D4-041519-1**
Sampled: 4/15/2019 13:50
**Sample ID: 19D0788-04**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/22/19 | 4/23/19 19:34 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 74.8 | 50-150 | | 4/23/19 19:34 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-D4-041519-1**
Sampled: 4/15/2019 13:50
**Sample ID: 19D0788-04**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Arsenic | 0.58 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Barium | 210 | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/23/19 | 4/24/19 12:20 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:18 | QNW |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20
**Sample ID: 19D0788-05**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Dichlorobiphenyls | 0.0022 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |
| Total Polychlorinated biphenyls | 0.0022 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 14:23 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 93.3 | 50-125 | | 4/23/19 14:23 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20
**Sample ID: 19D0788-05**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788

Date Received: 4/15/2019

**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20

**Sample ID: 19D0788-05**

Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 4:17 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 104 | 70-130 | | 4/20/19 4:17 |
| Toluene-d8 | 101 | 70-130 | | 4/20/19 4:17 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/20/19 4:17 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20
**Sample ID: 19D0788-05**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/20/19 | 4/23/19 12:00 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 31.8 | 30-130 | | 4/23/19 12:00 |
| 2-Fluorobiphenyl | 54.5 | 30-130 | | 4/23/19 12:00 |
| p-Terphenyl-d14 | 78.5 | 30-130 | | 4/23/19 12:00 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20
**Sample ID: 19D0788-05**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Aldrin [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| alpha-BHC [1] | ND | 0.049 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| beta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| delta-BHC [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.029 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Chlordane [1] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| 4,4'-DDD [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| 4,4'-DDE [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| 4,4'-DDT [1] | ND | 0.039 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Dieldrin [1] | ND | 0.0019 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Endosulfan I [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Endosulfan II [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Endosulfan sulfate [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Endrin [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Endrin aldehyde [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Endrin ketone [1] | ND | 0.078 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Heptachlor [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Heptachlor epoxide [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Hexachlorobenzene [1] | ND | 0.049 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Methoxychlor [1] | ND | 0.49 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |
| Toxaphene [1] | ND | 0.97 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:13 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 41.5 | 30-150 | | 4/23/19 22:13 |
| Decachlorobiphenyl [2] | 54.0 | 30-150 | | 4/23/19 22:13 |
| Tetrachloro-m-xylene [1] | 71.1 | 30-150 | | 4/23/19 22:13 |
| Tetrachloro-m-xylene [2] | 69.8 | 30-150 | | 4/23/19 22:13 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20
**Sample ID: 19D0788-05**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.21 | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/22/19 | 4/23/19 19:54 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 70.2 | 50-150 | | 4/23/19 19:54 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0788
Date Received: 4/15/2019
**Field Sample #: MW-H29-041519-1**
Sampled: 4/15/2019 14:20
**Sample ID: 19D0788-05**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Arsenic | 14 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Barium | 330 | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Chromium | 1.5 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Lead | 1.3 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/23/19 | 4/24/19 12:22 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/18/19 | 4/19/19 13:29 | QNW |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228769 | 1000 | 1.00 | 04/22/19 |
| 19D0788-04 [MW-D4-041519-1] | B228769 | 980 | 1.00 | 04/22/19 |
| 19D0788-05 [MW-H29-041519-1] | B228769 | 1000 | 1.00 | 04/22/19 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228768 | 1030 | 1.00 | 04/22/19 |
| 19D0788-02 [MW-35-041519-1] | B228768 | 1020 | 1.00 | 04/22/19 |
| 19D0788-04 [MW-D4-041519-1] | B228768 | 1040 | 1.00 | 04/22/19 |
| 19D0788-05 [MW-H29-041519-1] | B228768 | 1020 | 1.00 | 04/22/19 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228607 | 50.0 | 50.0 | 04/18/19 |
| 19D0788-02 [MW-35-041519-1] | B228607 | 50.0 | 50.0 | 04/18/19 |
| 19D0788-04 [MW-D4-041519-1] | B228607 | 50.0 | 50.0 | 04/18/19 |
| 19D0788-05 [MW-H29-041519-1] | B228607 | 50.0 | 50.0 | 04/18/19 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228782 | 6.00 | 6.00 | 04/23/19 |
| 19D0788-02 [MW-35-041519-1] | B228782 | 6.00 | 6.00 | 04/23/19 |
| 19D0788-04 [MW-D4-041519-1] | B228782 | 6.00 | 6.00 | 04/23/19 |
| 19D0788-05 [MW-H29-041519-1] | B228782 | 6.00 | 6.00 | 04/23/19 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228767 | 1000 | 10.0 | 04/22/19 |
| 19D0788-02 [MW-35-041519-1] | B228767 | 1010 | 10.0 | 04/22/19 |
| 19D0788-05 [MW-H29-041519-1] | B228767 | 1030 | 10.0 | 04/22/19 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0788-02 [MW-35-041519-1] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0788-03 [VOC Trip Blank] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0788-04 [MW-D4-041519-1] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0788-05 [MW-H29-041519-1] | B228644 | 5 | 5.00 | 04/19/19 |

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0788-01 [MW-28-041519-1] | B228876 | 1000 | 1.00 | 04/20/19 |
| 19D0788-02 [MW-35-041519-1] | B228876 | 960 | 1.00 | 04/20/19 |
| 19D0788-04 [MW-D4-041519-1] | B228876 | 980 | 1.00 | 04/20/19 |
| 19D0788-05 [MW-H29-041519-1] | B228876 | 1000 | 1.00 | 04/20/19 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228768 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228768-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.187* | | µg/L | 0.200 | | 93.6 | 50-125 | | | |
| **LCS (B228768-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 83.9 | 40-140 | | | |
| Dichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 85.4 | 40-140 | | | |
| Trichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 79.9 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.7 | 40-140 | | | |
| Pentachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 82.4 | 40-140 | | | |
| Hexachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 81.9 | 40-140 | | | |
| Heptachlorobiphenyls | 0.49 | 0.0030 | µg/L | 0.600 | | 81.8 | 40-140 | | | |
| Octachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 85.7 | 40-140 | | | |
| Nonachlorobiphenyls | 1.0 | 0.0050 | µg/L | 1.00 | | 99.8 | 40-140 | | | |
| Decachlorobiphenyl | 0.98 | 0.0050 | µg/L | 1.00 | | 97.9 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.176* | | µg/L | 0.200 | | 87.8 | 50-125 | | | |
| **LCS Dup (B228768-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 92.5 | 40-140 | 9.78 | 50 | |
| Dichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 88.2 | 40-140 | 3.23 | 50 | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 83.3 | 40-140 | 4.09 | 50 | |
| Tetrachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 87.1 | 40-140 | 3.93 | 50 | |
| Pentachlorobiphenyls | 0.40 | 0.0020 | µg/L | 0.400 | | 101 | 40-140 | 20.4 | 50 | |
| Hexachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.1 | 40-140 | 1.49 | 50 | |
| Heptachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 84.8 | 40-140 | 3.57 | 50 | |
| Octachlorobiphenyls | 0.52 | 0.0030 | µg/L | 0.600 | | 86.9 | 40-140 | 1.48 | 50 | |
| Nonachlorobiphenyls | 0.90 | 0.0050 | µg/L | 1.00 | | 90.3 | 40-140 | 10.0 | 50 | |
| Decachlorobiphenyl | 0.99 | 0.0050 | µg/L | 1.00 | | 99.0 | 40-140 | 1.07 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.200* | | µg/L | 0.200 | | 100 | 50-125 | | | |
| **Matrix Spike (B228768-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.172 | 0.00096 | µg/L | 0.192 | ND | 89.7 | 0-200 | | | |
| Dichlorobiphenyls | 0.167 | 0.00096 | µg/L | 0.192 | ND | 86.6 | 0-200 | | | |
| Trichlorobiphenyls | 0.158 | 0.00096 | µg/L | 0.192 | ND | 82.1 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.331 | 0.0019 | µg/L | 0.385 | ND | 86.0 | 0-200 | | | |
| Pentachlorobiphenyls | 0.358 | 0.0019 | µg/L | 0.385 | ND | 93.0 | 0-200 | | | |
| Hexachlorobiphenyls | 0.324 | 0.0019 | µg/L | 0.385 | ND | 84.2 | 0-200 | | | |
| Heptachlorobiphenyls | 0.469 | 0.0029 | µg/L | 0.577 | ND | 81.3 | 0-200 | | | |
| Octachlorobiphenyls | 0.475 | 0.0029 | µg/L | 0.577 | ND | 82.4 | 0-200 | | | |
| Nonachlorobiphenyls | 0.868 | 0.0048 | µg/L | 0.962 | ND | 90.3 | 0-200 | | | |
| Decachlorobiphenyl | 0.895 | 0.0048 | µg/L | 0.962 | ND | 93.1 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.194* | | µg/L | 0.192 | | 101 | 50-125 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228768 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B228768-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.134 | 0.00096 | µg/L | 0.192 | ND | 69.8 | 0-200 | 25.0 | | |
| Dichlorobiphenyls | 0.152 | 0.00096 | µg/L | 0.192 | ND | 78.9 | 0-200 | 9.29 | | |
| Trichlorobiphenyls | 0.144 | 0.00096 | µg/L | 0.192 | ND | 74.7 | 0-200 | 9.36 | | |
| Tetrachlorobiphenyls | 0.297 | 0.0019 | µg/L | 0.385 | ND | 77.2 | 0-200 | 10.8 | | |
| Pentachlorobiphenyls | 0.313 | 0.0019 | µg/L | 0.385 | ND | 81.4 | 0-200 | 13.3 | | |
| Hexachlorobiphenyls | 0.279 | 0.0019 | µg/L | 0.385 | ND | 72.4 | 0-200 | 15.0 | | |
| Heptachlorobiphenyls | 0.404 | 0.0029 | µg/L | 0.577 | ND | 70.0 | 0-200 | 14.9 | | |
| Octachlorobiphenyls | 0.417 | 0.0029 | µg/L | 0.577 | ND | 72.2 | 0-200 | 13.2 | | |
| Nonachlorobiphenyls | 0.736 | 0.0048 | µg/L | 0.962 | ND | 76.6 | 0-200 | 16.4 | | |
| Decachlorobiphenyl | 0.703 | 0.0048 | µg/L | 0.962 | ND | 73.1 | 0-200 | 24.1 | | |
| Surrogate: Tetrachloro-m-xylene | *0.148* | | µg/L | 0.192 | | 76.9 | 50-125 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228644-BLK1)** | | | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | V-34 |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228644-BLK1)** | | | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.2* | | µg/L | 25.0 | | 101 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.2* | | µg/L | 25.0 | | 101 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.6* | | µg/L | 25.0 | | 102 | 70-130 | | | |
| **LCS (B228644-BS1)** | | | | Prepared & Analyzed: 04/19/19 | | | | | | |
| Acetone | 97.2 | 10 | µg/L | 100 | | 97.2 | 70-130 | | | V-36 |
| Acrylonitrile | 9.73 | 2.0 | µg/L | 10.0 | | 97.3 | 70-130 | | | |
| Benzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Bromobenzene | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Bromodichloromethane | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Bromoform | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Bromomethane | 9.30 | 1.0 | µg/L | 10.0 | | 93.0 | 70-130 | | | V-34 |
| 2-Butanone (MEK) | 100 | 5.0 | µg/L | 100 | | 100 | 70-130 | | | |
| n-Butylbenzene | 9.68 | 1.0 | µg/L | 10.0 | | 96.8 | 70-130 | | | |
| sec-Butylbenzene | 10.0 | 1.0 | µg/L | 10.0 | | 100 | 70-130 | | | |
| tert-Butylbenzene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Carbon Disulfide | 103 | 5.0 | µg/L | 100 | | 103 | 70-130 | | | V-36 |
| Carbon Tetrachloride | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chlorobenzene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chlorodibromomethane | 11.0 | 0.50 | µg/L | 10.0 | | 110 | 70-130 | | | |
| Chloroethane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Chloroform | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Chloromethane | 9.18 | 0.60 | µg/L | 10.0 | | 91.8 | 70-130 | | | |
| 2-Chlorotoluene | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| 4-Chlorotoluene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Dibromomethane | 11.2 | 0.50 | µg/L | 10.0 | | 112 | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 1,4-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 8.90 | 2.0 | µg/L | 10.0 | | 89.0 | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,1-Dichloroethane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2-Dichloroethane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,1-Dichloroethylene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | | |
| **LCS (B228644-BS1)** | | | | Prepared & Analyzed: 04/19/19 | | | | | | | |
| cis-1,2-Dichloroethylene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| trans-1,2-Dichloroethylene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| 1,2-Dichloropropane | 10.9 | 0.50 | µg/L | 10.0 | | 109 | | 70-130 | | | |
| 1,3-Dichloropropane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 2,2-Dichloropropane | 7.97 | 0.50 | µg/L | 10.0 | | 79.7 | | 70-130 | | | |
| 1,1-Dichloropropene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| cis-1,3-Dichloropropene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| trans-1,3-Dichloropropene | 9.94 | 0.50 | µg/L | 10.0 | | 99.4 | | 70-130 | | | |
| Ethylbenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| Hexachlorobutadiene | 10.8 | 0.60 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 2-Hexanone (MBK) | 100 | 5.0 | µg/L | 100 | | 100 | | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 10.0 | 0.50 | µg/L | 10.0 | | 100 | | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 10.0 | 0.50 | µg/L | 10.0 | | 100 | | 70-130 | | | |
| Methylene Chloride | 10.3 | 5.0 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 102 | 5.0 | µg/L | 100 | | 102 | | 70-130 | | | |
| Naphthalene | 10.4 | 2.0 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| n-Propylbenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| Styrene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 9.14 | 0.50 | µg/L | 10.0 | | 91.4 | | 70-130 | | | |
| Tetrachloroethylene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| Tetrahydrofuran | 9.47 | 10 | µg/L | 10.0 | | 94.7 | | 70-130 | | | |
| Toluene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| 1,1,1-Trichloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | | 70-130 | | | |
| Trichloroethylene | 11.3 | 1.0 | µg/L | 10.0 | | 113 | | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 10.8 | 2.0 | µg/L | 10.0 | | 108 | | 70-130 | | | |
| 1,2,3-Trichloropropane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 9.96 | 0.50 | µg/L | 10.0 | | 99.6 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.74 | 0.50 | µg/L | 10.0 | | 97.4 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| Vinyl Chloride | 10.1 | 1.0 | µg/L | 10.0 | | 101 | | 70-130 | | | |
| m+p Xylene | 20.4 | 2.0 | µg/L | 20.0 | | 102 | | 70-130 | | | |
| o-Xylene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *24.8* | | µg/L | 25.0 | | 99.0 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.2* | | µg/L | 25.0 | | 101 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.1* | | µg/L | 25.0 | | 100 | | 70-130 | | | |
| **Matrix Spike (B228644-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | | |
| Acetone | 102 | 10 | µg/L | 100 | ND | 102 | | 70-130 | | | V-36 |
| Acrylonitrile | 10.2 | 2.0 | µg/L | 10.0 | ND | 102 | | 70-130 | | | |
| Benzene | 9.06 | 0.50 | µg/L | 10.0 | ND | 90.6 | | 70-130 | | | |
| Bromobenzene | 8.94 | 0.50 | µg/L | 10.0 | ND | 89.4 | | 70-130 | | | |
| Bromodichloromethane | 9.30 | 0.50 | µg/L | 10.0 | ND | 93.0 | | 70-130 | | | |
| Bromoform | 8.88 | 0.50 | µg/L | 10.0 | ND | 88.8 | | 70-130 | | | |
| **Bromomethane** | 5.00 | 1.0 | µg/L | 10.0 | ND | **50.0** | * | 70-130 | | | MS-07A, V-34 |
| 2-Butanone (MEK) | 94.7 | 5.0 | µg/L | 100 | ND | 94.7 | | 70-130 | | | |
| n-Butylbenzene | 8.43 | 1.0 | µg/L | 10.0 | ND | 84.3 | | 70-130 | | | |
| sec-Butylbenzene | 9.23 | 1.0 | µg/L | 10.0 | ND | 92.3 | | 70-130 | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | | |
| **Matrix Spike (B228644-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | | |
| tert-Butylbenzene | 9.05 | 1.0 | µg/L | 10.0 | ND | 90.5 | | 70-130 | | | |
| Carbon Disulfide | 10.7 | 5.0 | µg/L | 10.0 | ND | 107 | | 70-130 | | | V-36 |
| Carbon Tetrachloride | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | | 70-130 | | | |
| Chlorobenzene | 9.08 | 0.50 | µg/L | 10.0 | ND | 90.8 | | 70-130 | | | |
| Chlorodibromomethane | 9.42 | 0.50 | µg/L | 10.0 | ND | 94.2 | | 70-130 | | | |
| Chloroethane | 10.5 | 0.50 | µg/L | 10.0 | ND | 105 | | 70-130 | | | |
| Chloroform | 9.21 | 0.50 | µg/L | 10.0 | ND | 92.1 | | 70-130 | | | |
| **Chloromethane** | 6.59 | 0.60 | µg/L | 10.0 | ND | **65.9** | * | 70-130 | | | MS-24 |
| 2-Chlorotoluene | 9.09 | 0.50 | µg/L | 10.0 | ND | 90.9 | | 70-130 | | | |
| 4-Chlorotoluene | 8.94 | 0.50 | µg/L | 10.0 | ND | 89.4 | | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.36 | 1.0 | µg/L | 10.0 | ND | 93.6 | | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 8.96 | 0.50 | µg/L | 10.0 | ND | 89.6 | | 70-130 | | | |
| Dibromomethane | 9.98 | 0.50 | µg/L | 10.0 | ND | 99.8 | | 70-130 | | | |
| 1,2-Dichlorobenzene | 8.94 | 0.50 | µg/L | 10.0 | ND | 89.4 | | 70-130 | | | |
| 1,3-Dichlorobenzene | 8.91 | 0.50 | µg/L | 10.0 | ND | 89.1 | | 70-130 | | | |
| 1,4-Dichlorobenzene | 8.74 | 0.50 | µg/L | 10.0 | ND | 87.4 | | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 7.76 | 2.0 | µg/L | 10.0 | ND | 77.6 | | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 7.98 | 0.50 | µg/L | 10.0 | ND | 79.8 | | 70-130 | | | |
| 1,1-Dichloroethane | 9.31 | 0.50 | µg/L | 10.0 | ND | 93.1 | | 70-130 | | | |
| 1,2-Dichloroethane | 9.46 | 0.50 | µg/L | 10.0 | ND | 94.6 | | 70-130 | | | |
| 1,1-Dichloroethylene | 9.78 | 0.50 | µg/L | 10.0 | ND | 97.8 | | 70-130 | | | |
| cis-1,2-Dichloroethylene | 8.78 | 0.50 | µg/L | 10.0 | ND | 87.8 | | 70-130 | | | |
| trans-1,2-Dichloroethylene | 9.77 | 1.0 | µg/L | 10.0 | ND | 97.7 | | 70-130 | | | |
| 1,2-Dichloropropane | 9.10 | 0.50 | µg/L | 10.0 | ND | 91.0 | | 70-130 | | | |
| 1,3-Dichloropropane | 8.87 | 0.50 | µg/L | 10.0 | ND | 88.7 | | 70-130 | | | |
| **2,2-Dichloropropane** | 5.48 | 0.50 | µg/L | 10.0 | ND | **54.8** | * | 70-130 | | | MS-07A |
| 1,1-Dichloropropene | 9.17 | 0.50 | µg/L | 10.0 | ND | 91.7 | | 70-130 | | | |
| cis-1,3-Dichloropropene | 7.98 | 0.50 | µg/L | 10.0 | ND | 79.8 | | 70-130 | | | |
| trans-1,3-Dichloropropene | 7.65 | 0.50 | µg/L | 10.0 | ND | 76.5 | | 70-130 | | | |
| Ethylbenzene | 9.03 | 0.50 | µg/L | 10.0 | ND | 90.3 | | 70-130 | | | |
| Hexachlorobutadiene | 9.75 | 0.60 | µg/L | 10.0 | ND | 97.5 | | 70-130 | | | |
| 2-Hexanone (MBK) | 95.8 | 5.0 | µg/L | 100 | ND | 95.8 | | 70-130 | | | |
| Isopropylbenzene (Cumene) | 9.39 | 0.50 | µg/L | 10.0 | ND | 93.9 | | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 8.88 | 0.50 | µg/L | 10.0 | ND | 88.8 | | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 9.32 | 0.50 | µg/L | 10.0 | ND | 93.2 | | 70-130 | | | |
| Methylene Chloride | 8.94 | 5.0 | µg/L | 10.0 | ND | 89.4 | | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 94.9 | 5.0 | µg/L | 100 | ND | 94.9 | | 70-130 | | | |
| Naphthalene | 8.71 | 2.0 | µg/L | 10.0 | ND | 87.1 | | 70-130 | | | |
| n-Propylbenzene | 9.21 | 1.0 | µg/L | 10.0 | ND | 92.1 | | 70-130 | | | |
| Styrene | 8.92 | 1.0 | µg/L | 10.0 | ND | 89.2 | | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 9.19 | 0.50 | µg/L | 10.0 | ND | 91.9 | | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 9.58 | 0.50 | µg/L | 10.0 | ND | 95.8 | | 70-130 | | | |
| Tetrachloroethylene | 9.72 | 1.0 | µg/L | 10.0 | ND | 97.2 | | 70-130 | | | |
| Tetrahydrofuran | 10.7 | 10 | µg/L | 10.0 | ND | 107 | | 70-130 | | | |
| Toluene | 9.07 | 1.0 | µg/L | 10.0 | ND | 90.7 | | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 8.61 | 1.0 | µg/L | 10.0 | ND | 86.1 | | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 8.37 | 0.50 | µg/L | 10.0 | ND | 83.7 | | 70-130 | | | |
| 1,1,1-Trichloroethane | 9.41 | 0.50 | µg/L | 10.0 | ND | 94.1 | | 70-130 | | | |
| 1,1,2-Trichloroethane | 9.06 | 0.50 | µg/L | 10.0 | ND | 90.6 | | 70-130 | | | |
| Trichloroethylene | 9.02 | 1.0 | µg/L | 10.0 | ND | 90.2 | | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 9.56 | 2.0 | µg/L | 10.0 | ND | 95.6 | | 70-130 | | | |
| 1,2,3-Trichloropropane | 9.24 | 0.50 | µg/L | 10.0 | ND | 92.4 | | 70-130 | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | | |
| **Matrix Spike (B228644-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 11.5 | 0.50 | µg/L | 10.0 | ND | 115 | | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 8.16 | 0.50 | µg/L | 10.0 | ND | 81.6 | | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 8.69 | 0.50 | µg/L | 10.0 | ND | 86.9 | | 70-130 | | | |
| Vinyl Chloride | 8.69 | 1.0 | µg/L | 10.0 | ND | 86.9 | | 70-130 | | | |
| m+p Xylene | 18.2 | 2.0 | µg/L | 20.0 | ND | 91.0 | | 70-130 | | | |
| o-Xylene | 8.98 | 1.0 | µg/L | 10.0 | ND | 89.8 | | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.3* | | µg/L | 25.0 | | 101 | | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.0* | | µg/L | 25.0 | | 99.8 | | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.4* | | µg/L | 25.0 | | 102 | | 70-130 | | | |
| **Matrix Spike Dup (B228644-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | | |
| Acetone | 104 | 10 | µg/L | 100 | ND | 104 | | 70-130 | 1.80 | 30 | V-36 |
| Acrylonitrile | 11.0 | 2.0 | µg/L | 10.0 | ND | 110 | | 70-130 | 7.83 | 30 | |
| Benzene | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | | 70-130 | 13.9 | 30 | |
| Bromobenzene | 10.8 | 0.50 | µg/L | 10.0 | ND | 108 | | 70-130 | 18.5 | 30 | |
| Bromodichloromethane | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | | 70-130 | 17.0 | 30 | |
| Bromoform | 10.3 | 0.50 | µg/L | 10.0 | ND | 103 | | 70-130 | 14.7 | 30 | |
| **Bromomethane** | 6.32 | 1.0 | µg/L | 10.0 | ND | **63.2** | * | 70-130 | 23.3 | 30 | MS-07A, V-34 |
| 2-Butanone (MEK) | 100 | 5.0 | µg/L | 100 | ND | 100 | | 70-130 | 5.87 | 30 | |
| n-Butylbenzene | 9.86 | 1.0 | µg/L | 10.0 | ND | 98.6 | | 70-130 | 15.6 | 30 | |
| sec-Butylbenzene | 10.5 | 1.0 | µg/L | 10.0 | ND | 105 | | 70-130 | 12.8 | 30 | |
| tert-Butylbenzene | 10.4 | 1.0 | µg/L | 10.0 | ND | 104 | | 70-130 | 14.2 | 30 | |
| Carbon Disulfide | 11.5 | 5.0 | µg/L | 10.0 | ND | 115 | | 70-130 | 6.57 | 30 | V-36 |
| Carbon Tetrachloride | 10.8 | 0.50 | µg/L | 10.0 | ND | 108 | | 70-130 | 6.24 | 30 | |
| Chlorobenzene | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | 17.9 | 30 | |
| Chlorodibromomethane | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | | 70-130 | 18.0 | 30 | |
| Chloroethane | 10.8 | 0.50 | µg/L | 10.0 | ND | 108 | | 70-130 | 3.10 | 30 | |
| Chloroform | 10.5 | 0.50 | µg/L | 10.0 | ND | 105 | | 70-130 | 13.3 | 30 | |
| Chloromethane | 7.07 | 0.60 | µg/L | 10.0 | ND | 70.7 | | 70-130 | 7.03 | 30 | |
| 2-Chlorotoluene | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | 18.3 | 30 | |
| 4-Chlorotoluene | 10.7 | 0.50 | µg/L | 10.0 | ND | 107 | | 70-130 | 18.3 | 30 | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 10.7 | 1.0 | µg/L | 10.0 | ND | 107 | | 70-130 | 13.3 | 30 | |
| 1,2-Dibromoethane (EDB) | 10.6 | 0.50 | µg/L | 10.0 | ND | 106 | | 70-130 | 17.2 | 30 | |
| Dibromomethane | 11.4 | 0.50 | µg/L | 10.0 | ND | 114 | | 70-130 | 13.6 | 30 | |
| 1,2-Dichlorobenzene | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | | 70-130 | 19.8 | 30 | |
| 1,3-Dichlorobenzene | 10.7 | 0.50 | µg/L | 10.0 | ND | 107 | | 70-130 | 18.2 | 30 | |
| 1,4-Dichlorobenzene | 10.6 | 0.50 | µg/L | 10.0 | ND | 106 | | 70-130 | 19.0 | 30 | |
| trans-1,4-Dichloro-2-butene | 9.25 | 2.0 | µg/L | 10.0 | ND | 92.5 | | 70-130 | 17.5 | 30 | |
| Dichlorodifluoromethane (Freon 12) | 8.06 | 0.50 | µg/L | 10.0 | ND | 80.6 | | 70-130 | 0.998 | 30 | |
| 1,1-Dichloroethane | 10.7 | 0.50 | µg/L | 10.0 | ND | 107 | | 70-130 | 14.0 | 30 | |
| 1,2-Dichloroethane | 10.8 | 0.50 | µg/L | 10.0 | ND | 108 | | 70-130 | 13.1 | 30 | |
| 1,1-Dichloroethylene | 10.6 | 0.50 | µg/L | 10.0 | ND | 106 | | 70-130 | 8.24 | 30 | |
| cis-1,2-Dichloroethylene | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | | 70-130 | 13.9 | 30 | |
| trans-1,2-Dichloroethylene | 10.9 | 1.0 | µg/L | 10.0 | ND | 109 | | 70-130 | 11.3 | 30 | |
| 1,2-Dichloropropane | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | | 70-130 | 21.4 | 30 | |
| 1,3-Dichloropropane | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | | 70-130 | 15.7 | 30 | |
| **2,2-Dichloropropane** | 5.86 | 0.50 | µg/L | 10.0 | ND | **58.6** | * | 70-130 | 6.70 | 30 | MS-07A |
| 1,1-Dichloropropene | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | | 70-130 | 9.65 | 30 | |
| cis-1,3-Dichloropropene | 9.79 | 0.50 | µg/L | 10.0 | ND | 97.9 | | 70-130 | 20.4 | 30 | |
| trans-1,3-Dichloropropene | 9.41 | 0.50 | µg/L | 10.0 | ND | 94.1 | | 70-130 | 20.6 | 30 | |
| Ethylbenzene | 10.6 | 0.50 | µg/L | 10.0 | ND | 106 | | 70-130 | 15.8 | 30 | |
| Hexachlorobutadiene | 11.6 | 0.60 | µg/L | 10.0 | ND | 116 | | 70-130 | 17.3 | 30 | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | |
| **Matrix Spike Dup (B228644-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | |
| 2-Hexanone (MBK) | 106 | 5.0 | µg/L | 100 | ND | 106 | 70-130 | 10.2 | 30 | |
| Isopropylbenzene (Cumene) | 11.0 | 0.50 | µg/L | 10.0 | ND | 110 | 70-130 | 15.5 | 30 | |
| p-Isopropyltoluene (p-Cymene) | 10.3 | 0.50 | µg/L | 10.0 | ND | 103 | 70-130 | 14.7 | 30 | |
| Methyl tert-Butyl Ether (MTBE) | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | 70-130 | 15.3 | 30 | |
| Methylene Chloride | 10.3 | 5.0 | µg/L | 10.0 | ND | 103 | 70-130 | 14.5 | 30 | |
| 4-Methyl-2-pentanone (MIBK) | 107 | 5.0 | µg/L | 100 | ND | 107 | 70-130 | 11.5 | 30 | |
| Naphthalene | 10.5 | 2.0 | µg/L | 10.0 | ND | 105 | 70-130 | 18.4 | 30 | |
| n-Propylbenzene | 10.6 | 1.0 | µg/L | 10.0 | ND | 106 | 70-130 | 14.5 | 30 | |
| Styrene | 10.5 | 1.0 | µg/L | 10.0 | ND | 105 | 70-130 | 16.6 | 30 | |
| 1,1,1,2-Tetrachloroethane | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | 70-130 | 20.4 | 30 | |
| 1,1,2,2-Tetrachloroethane | 11.3 | 0.50 | µg/L | 10.0 | ND | 113 | 70-130 | 16.7 | 30 | |
| Tetrachloroethylene | 10.8 | 1.0 | µg/L | 10.0 | ND | 108 | 70-130 | 10.4 | 30 | |
| Tetrahydrofuran | 10.7 | 10 | µg/L | 10.0 | ND | 107 | 70-130 | 0.0932 | 30 | |
| Toluene | 10.7 | 1.0 | µg/L | 10.0 | ND | 107 | 70-130 | 16.3 | 30 | |
| 1,2,3-Trichlorobenzene | 10.8 | 1.0 | µg/L | 10.0 | ND | 108 | 70-130 | 22.1 | 30 | |
| 1,2,4-Trichlorobenzene | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | 70-130 | 21.4 | 30 | |
| 1,1,1-Trichloroethane | 10.6 | 0.50 | µg/L | 10.0 | ND | 106 | 70-130 | 11.6 | 30 | |
| 1,1,2-Trichloroethane | 10.9 | 0.50 | µg/L | 10.0 | ND | 109 | 70-130 | 18.5 | 30 | |
| Trichloroethylene | 10.4 | 1.0 | µg/L | 10.0 | ND | 104 | 70-130 | 14.2 | 30 | |
| Trichlorofluoromethane (Freon 11) | 10.1 | 2.0 | µg/L | 10.0 | ND | 101 | 70-130 | 5.49 | 30 | |
| 1,2,3-Trichloropropane | 10.1 | 0.50 | µg/L | 10.0 | ND | 101 | 70-130 | 9.09 | 30 | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 11.8 | 0.50 | µg/L | 10.0 | ND | 118 | 70-130 | 1.97 | 30 | |
| 1,2,4-Trimethylbenzene | 9.70 | 0.50 | µg/L | 10.0 | ND | 97.0 | 70-130 | 17.2 | 30 | |
| 1,3,5-Trimethylbenzene | 10.4 | 0.50 | µg/L | 10.0 | ND | 104 | 70-130 | 17.7 | 30 | |
| Vinyl Chloride | 9.13 | 1.0 | µg/L | 10.0 | ND | 91.3 | 70-130 | 4.94 | 30 | |
| m+p Xylene | 21.1 | 2.0 | µg/L | 20.0 | ND | 106 | 70-130 | 14.8 | 30 | |
| o-Xylene | 10.8 | 1.0 | µg/L | 10.0 | ND | 108 | 70-130 | 18.3 | 30 | |
| Surrogate: 1,2-Dichloroethane-d4 | *24.5* | | µg/L | 25.0 | | 97.9 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.1* | | µg/L | 25.0 | | 101 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.4* | | µg/L | 25.0 | | 102 | 70-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228876 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228876-BLK1)** | | | | Prepared: 04/20/19 Analyzed: 04/23/19 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *120* | | µg/L | 100 | | 120 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *79.2* | | µg/L | 100 | | 79.2 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *101* | | µg/L | 100 | | 101 | 30-130 | | | |
| **LCS (B228876-BS1)** | | | | Prepared: 04/20/19 Analyzed: 04/23/19 | | | | | | |
| Acenaphthene (SIM) | 50.8 | 6.0 | µg/L | 50.0 | | 102 | 40-140 | | | |
| Acenaphthylene (SIM) | 52.9 | 4.0 | µg/L | 50.0 | | 106 | 40-140 | | | |
| Anthracene (SIM) | 55.0 | 4.0 | µg/L | 50.0 | | 110 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 51.9 | 1.0 | µg/L | 50.0 | | 104 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 59.7 | 2.0 | µg/L | 50.0 | | 119 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 58.1 | 1.0 | µg/L | 50.0 | | 116 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 57.1 | 10 | µg/L | 50.0 | | 114 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 59.3 | 4.0 | µg/L | 50.0 | | 119 | 40-140 | | | |
| Chrysene (SIM) | 53.5 | 4.0 | µg/L | 50.0 | | 107 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 58.7 | 2.0 | µg/L | 50.0 | | 117 | 40-140 | | | |
| Fluoranthene (SIM) | 51.7 | 10 | µg/L | 50.0 | | 103 | 40-140 | | | |
| Fluorene (SIM) | 54.5 | 20 | µg/L | 50.0 | | 109 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 59.2 | 2.0 | µg/L | 50.0 | | 118 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 51.9 | 20 | µg/L | 50.0 | | 104 | 40-140 | | | |
| Naphthalene (SIM) | 50.6 | 20 | µg/L | 50.0 | | 101 | 40-140 | | | |
| Phenanthrene (SIM) | 52.7 | 1.0 | µg/L | 50.0 | | 105 | 40-140 | | | |
| Pyrene (SIM) | 50.9 | 20 | µg/L | 50.0 | | 102 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *107* | | µg/L | 100 | | 107 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *81.5* | | µg/L | 100 | | 81.5 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *84.4* | | µg/L | 100 | | 84.4 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228876 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B228876-BSD1)** | | | | Prepared: 04/20/19 Analyzed: 04/23/19 | | | | | | |
| Acenaphthene (SIM) | 44.4 | 6.0 | µg/L | 50.0 | | 88.8 | 40-140 | 13.5 | 20 | |
| Acenaphthylene (SIM) | 45.9 | 4.0 | µg/L | 50.0 | | 91.8 | 40-140 | 14.2 | 20 | |
| Anthracene (SIM) | 47.7 | 4.0 | µg/L | 50.0 | | 95.5 | 40-140 | 14.1 | 20 | |
| Benzo(a)anthracene (SIM) | 44.3 | 1.0 | µg/L | 50.0 | | 88.6 | 40-140 | 15.8 | 20 | |
| Benzo(a)pyrene (SIM) | 50.6 | 2.0 | µg/L | 50.0 | | 101 | 40-140 | 16.5 | 20 | |
| Benzo(b)fluoranthene (SIM) | 49.4 | 1.0 | µg/L | 50.0 | | 98.8 | 40-140 | 16.3 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 47.7 | 10 | µg/L | 50.0 | | 95.4 | 40-140 | 18.0 | 20 | |
| Benzo(k)fluoranthene (SIM) | 50.0 | 4.0 | µg/L | 50.0 | | 100 | 40-140 | 17.1 | 20 | |
| Chrysene (SIM) | 45.4 | 4.0 | µg/L | 50.0 | | 90.9 | 40-140 | 16.4 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 48.6 | 2.0 | µg/L | 50.0 | | 97.3 | 40-140 | 18.7 | 20 | |
| Fluoranthene (SIM) | 45.8 | 10 | µg/L | 50.0 | | 91.7 | 40-140 | 12.0 | 20 | |
| Fluorene (SIM) | 48.5 | 20 | µg/L | 50.0 | | 97.0 | 40-140 | 11.7 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 49.3 | 2.0 | µg/L | 50.0 | | 98.5 | 40-140 | 18.4 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 45.6 | 20 | µg/L | 50.0 | | 91.3 | 40-140 | 12.9 | 20 | |
| Naphthalene (SIM) | 44.0 | 20 | µg/L | 50.0 | | 88.0 | 40-140 | 13.9 | 20 | |
| Phenanthrene (SIM) | 45.2 | 1.0 | µg/L | 50.0 | | 90.4 | 40-140 | 15.4 | 20 | |
| Pyrene (SIM) | 43.4 | 20 | µg/L | 50.0 | | 86.8 | 40-140 | 16.0 | 20 | |
| Surrogate: Nitrobenzene-d5 | *95.5* | | µg/L | 100 | | 95.5 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *69.7* | | µg/L | 100 | | 69.7 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *69.2* | | µg/L | 100 | | 69.2 | 30-130 | | | |
| **Matrix Spike (B228876-MS1)** | **Source: 19D0788-01** | | | Prepared: 04/20/19 Analyzed: 04/23/19 | | | | | | |
| Acenaphthene (SIM) | 44.7 | 6.0 | µg/L | 50.0 | ND | 89.3 | 40-140 | | | |
| Acenaphthylene (SIM) | 46.4 | 4.0 | µg/L | 50.0 | ND | 92.8 | 40-140 | | | |
| Anthracene (SIM) | 47.7 | 4.0 | µg/L | 50.0 | ND | 95.4 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 44.9 | 1.0 | µg/L | 50.0 | ND | 89.8 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 51.4 | 2.0 | µg/L | 50.0 | ND | 103 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 49.4 | 1.0 | µg/L | 50.0 | ND | 98.9 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 48.6 | 10 | µg/L | 50.0 | ND | 97.2 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 50.1 | 4.0 | µg/L | 50.0 | ND | 100 | 40-140 | | | |
| Chrysene (SIM) | 45.9 | 4.0 | µg/L | 50.0 | ND | 91.8 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 50.1 | 2.0 | µg/L | 50.0 | ND | 100 | 40-140 | | | |
| Fluoranthene (SIM) | 45.3 | 10 | µg/L | 50.0 | ND | 90.6 | 40-140 | | | |
| Fluorene (SIM) | 47.8 | 20 | µg/L | 50.0 | ND | 95.7 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 50.5 | 2.0 | µg/L | 50.0 | ND | 101 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 45.2 | 20 | µg/L | 50.0 | ND | 90.4 | 40-140 | | | |
| Naphthalene (SIM) | 44.6 | 20 | µg/L | 50.0 | ND | 89.2 | 40-140 | | | |
| Phenanthrene (SIM) | 45.4 | 1.0 | µg/L | 50.0 | ND | 90.7 | 40-140 | | | |
| Pyrene (SIM) | 43.5 | 20 | µg/L | 50.0 | ND | 87.1 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *99.9* | | µg/L | 100 | | 99.9 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *70.0* | | µg/L | 100 | | 70.0 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *79.4* | | µg/L | 100 | | 79.4 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228876 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B228876-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/20/19 Analyzed: 04/23/19 | | | | | | |
| Acenaphthene (SIM) | 44.6 | 6.0 | µg/L | 50.0 | ND | 89.1 | 40-140 | 0.224 | 30 | |
| Acenaphthylene (SIM) | 46.3 | 4.0 | µg/L | 50.0 | ND | 92.6 | 40-140 | 0.129 | 30 | |
| Anthracene (SIM) | 48.0 | 4.0 | µg/L | 50.0 | ND | 96.0 | 40-140 | 0.627 | 30 | |
| Benzo(a)anthracene (SIM) | 45.0 | 1.0 | µg/L | 50.0 | ND | 89.9 | 40-140 | 0.134 | 30 | |
| Benzo(a)pyrene (SIM) | 51.3 | 2.0 | µg/L | 50.0 | ND | 103 | 40-140 | 0.312 | 30 | |
| Benzo(b)fluoranthene (SIM) | 50.0 | 1.0 | µg/L | 50.0 | ND | 99.9 | 40-140 | 1.05 | 30 | |
| Benzo(g,h,i)perylene (SIM) | 47.5 | 10 | µg/L | 50.0 | ND | 95.0 | 40-140 | 2.33 | 30 | |
| Benzo(k)fluoranthene (SIM) | 50.7 | 4.0 | µg/L | 50.0 | ND | 101 | 40-140 | 1.35 | 30 | |
| Chrysene (SIM) | 45.4 | 4.0 | µg/L | 50.0 | ND | 90.8 | 40-140 | 1.01 | 30 | |
| Dibenz(a,h)anthracene (SIM) | 49.1 | 2.0 | µg/L | 50.0 | ND | 98.1 | 40-140 | 2.10 | 30 | |
| Fluoranthene (SIM) | 45.7 | 10 | µg/L | 50.0 | ND | 91.5 | 40-140 | 1.01 | 30 | |
| Fluorene (SIM) | 47.8 | 20 | µg/L | 50.0 | ND | 95.6 | 40-140 | 0.125 | 30 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 49.5 | 2.0 | µg/L | 50.0 | ND | 99.0 | 40-140 | 2.12 | 30 | |
| 2-Methylnaphthalene (SIM) | 44.8 | 20 | µg/L | 50.0 | ND | 89.6 | 40-140 | 0.934 | 30 | |
| Naphthalene (SIM) | 44.3 | 20 | µg/L | 50.0 | ND | 88.6 | 40-140 | 0.675 | 30 | |
| Phenanthrene (SIM) | 45.5 | 1.0 | µg/L | 50.0 | ND | 90.9 | 40-140 | 0.220 | 30 | |
| Pyrene (SIM) | 43.6 | 20 | µg/L | 50.0 | ND | 87.2 | 40-140 | 0.0918 | 30 | |
| Surrogate: Nitrobenzene-d5 | *99.9* | | µg/L | 100 | | 99.9 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *72.0* | | µg/L | 100 | | 72.0 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *77.0* | | µg/L | 100 | | 77.0 | 30-130 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228767-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| alpha-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| Alachlor | ND | 0.20 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.20 | µg/L | | | | | | | |
| Aldrin | ND | 0.050 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.050 | µg/L | | | | | | | R-05 |
| alpha-BHC [2C] | ND | 0.050 | µg/L | | | | | | | R-05 |
| beta-BHC | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.030 | µg/L | | | | | | | R-05 |
| gamma-BHC (Lindane) [2C] | ND | 0.030 | µg/L | | | | | | | R-05 |
| Chlordane | ND | 0.20 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.20 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.040 | µg/L | | | | | | | |
| Dieldrin | ND | 0.0020 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.0020 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin | ND | 0.080 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.080 | µg/L | | | | | | | |
| Heptachlor | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.050 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.50 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.50 | µg/L | | | | | | | |
| Toxaphene | ND | 1.0 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.84* | | µg/L | 2.00 | | 92.0 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.08* | | µg/L | 2.00 | | 104 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.67* | | µg/L | 2.00 | | 83.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.69* | | µg/L | 2.00 | | 84.5 | 30-150 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B228767-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| alpha-Chlordane | 0.92 | 0.050 | µg/L | 1.00 | | 92.3 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 94.6 | 0-200 | | | |
| gamma-Chlordane | 0.91 | 0.050 | µg/L | 1.00 | | 91.0 | 0-200 | | | |
| gamma-Chlordane [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.1 | 0-200 | | | |
| Alachlor | 0.89 | 0.20 | µg/L | 1.00 | | 88.7 | 40-140 | | | |
| Alachlor [2C] | 0.84 | 0.20 | µg/L | 1.00 | | 84.2 | 40-140 | | | |
| Aldrin | 0.86 | 0.050 | µg/L | 1.00 | | 86.5 | 40-140 | | | |
| Aldrin [2C] | 0.87 | 0.050 | µg/L | 1.00 | | 87.0 | 40-140 | | | |
| alpha-BHC | 0.61 | 0.050 | µg/L | 1.00 | | 60.9 | 40-140 | | | R-05 |
| alpha-BHC [2C] | 0.63 | 0.050 | µg/L | 1.00 | | 63.3 | 40-140 | | | R-05 |
| beta-BHC | 0.84 | 0.050 | µg/L | 1.00 | | 83.7 | 40-140 | | | |
| beta-BHC [2C] | 0.88 | 0.050 | µg/L | 1.00 | | 87.9 | 40-140 | | | |
| delta-BHC | 0.81 | 0.050 | µg/L | 1.00 | | 81.1 | 40-140 | | | |
| delta-BHC [2C] | 0.81 | 0.050 | µg/L | 1.00 | | 81.3 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.67 | 0.030 | µg/L | 1.00 | | 67.2 | 40-140 | | | R-05 |
| gamma-BHC (Lindane) [2C] | 0.69 | 0.030 | µg/L | 1.00 | | 69.1 | 40-140 | | | R-05 |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDT | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Dieldrin | 0.92 | 0.0020 | µg/L | 1.00 | | 92.0 | 40-140 | | | |
| Dieldrin [2C] | 0.90 | 0.0020 | µg/L | 1.00 | | 90.0 | 40-140 | | | |
| Endosulfan I | 0.89 | 0.050 | µg/L | 1.00 | | 89.2 | 40-140 | | | |
| Endosulfan I [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 91.7 | 40-140 | | | |
| Endosulfan II | 0.97 | 0.080 | µg/L | 1.00 | | 96.9 | 40-140 | | | |
| Endosulfan II [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 98.6 | 40-140 | | | |
| Endosulfan Sulfate | 0.99 | 0.080 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.3 | 40-140 | | | |
| Endrin | 0.94 | 0.080 | µg/L | 1.00 | | 93.8 | 40-140 | | | |
| Endrin [2C] | 0.95 | 0.080 | µg/L | 1.00 | | 94.7 | 40-140 | | | |
| Endrin Aldehyde | 0.93 | 0.080 | µg/L | 1.00 | | 93.3 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.97 | 0.080 | µg/L | 1.00 | | 96.5 | 40-140 | | | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Heptachlor | 0.70 | 0.050 | µg/L | 1.00 | | 70.3 | 40-140 | | | |
| Heptachlor [2C] | 0.73 | 0.050 | µg/L | 1.00 | | 72.9 | 40-140 | | | |
| Heptachlor Epoxide | 0.86 | 0.050 | µg/L | 1.00 | | 86.1 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 86.1 | 40-140 | | | |
| Hexachlorobenzene | 0.90 | 0.050 | µg/L | 1.00 | | 89.6 | 40-140 | | | |
| Hexachlorobenzene [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 98.2 | 40-140 | | | V-06 |
| Methoxychlor | 1.1 | 0.50 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | | 107 | 40-140 | | | |
| Surrogate: Decachlorobiphenyl | *1.84* | | µg/L | 2.00 | | 92.1 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.08* | | µg/L | 2.00 | | 104 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.38* | | µg/L | 2.00 | | 69.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.40* | | µg/L | 2.00 | | 70.0 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | | |
| **LCS Dup (B228767-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | | |
| alpha-Chlordane | 0.95 | 0.050 | µg/L | 1.00 | | 95.1 | 0-200 | 3.00 | | | |
| alpha-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.1 | 0-200 | 2.56 | | | |
| gamma-Chlordane | 0.94 | 0.050 | µg/L | 1.00 | | 94.4 | 0-200 | 3.61 | | | |
| gamma-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.3 | 0-200 | 3.32 | | | |
| Alachlor | 0.88 | 0.20 | µg/L | 1.00 | | 88.3 | 40-140 | 0.445 | | 20 | |
| Alachlor [2C] | 0.88 | 0.20 | µg/L | 1.00 | | 88.4 | 40-140 | 4.87 | | 20 | |
| Aldrin | 0.94 | 0.050 | µg/L | 1.00 | | 93.7 | 40-140 | 8.02 | | 20 | |
| Aldrin [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 93.7 | 40-140 | 7.37 | | 20 | |
| alpha-BHC | 0.81 | 0.050 | µg/L | 1.00 | | 81.4 | 40-140 | **28.8** | * | 20 | R-05 |
| alpha-BHC [2C] | 0.83 | 0.050 | µg/L | 1.00 | | 83.1 | 40-140 | **27.0** | * | 20 | R-05 |
| beta-BHC | 0.91 | 0.050 | µg/L | 1.00 | | 91.3 | 40-140 | 8.61 | | 20 | |
| beta-BHC [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.4 | 40-140 | 7.18 | | 20 | |
| delta-BHC | 0.90 | 0.050 | µg/L | 1.00 | | 90.3 | 40-140 | 10.7 | | 20 | |
| delta-BHC [2C] | 0.91 | 0.050 | µg/L | 1.00 | | 91.2 | 40-140 | 11.5 | | 20 | |
| gamma-BHC (Lindane) | 0.84 | 0.030 | µg/L | 1.00 | | 84.4 | 40-140 | **22.7** | * | 20 | R-05 |
| gamma-BHC (Lindane) [2C] | 0.86 | 0.030 | µg/L | 1.00 | | 85.7 | 40-140 | **21.5** | * | 20 | R-05 |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 0.242 | | 20 | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 0.153 | | 20 | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 104 | 40-140 | 0.967 | | 20 | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 102 | 40-140 | 0.857 | | 20 | |
| 4,4'-DDT | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 0.342 | | 20 | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 0.368 | | 20 | |
| Dieldrin | 0.94 | 0.0020 | µg/L | 1.00 | | 93.6 | 40-140 | 1.72 | | 20 | |
| Dieldrin [2C] | 0.91 | 0.0020 | µg/L | 1.00 | | 91.4 | 40-140 | 1.64 | | 20 | |
| Endosulfan I | 0.93 | 0.050 | µg/L | 1.00 | | 92.9 | 40-140 | 4.15 | | 20 | |
| Endosulfan I [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 95.8 | 40-140 | 4.41 | | 20 | |
| Endosulfan II | 0.97 | 0.080 | µg/L | 1.00 | | 97.1 | 40-140 | 0.279 | | 20 | |
| Endosulfan II [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 99.4 | 40-140 | 0.815 | | 20 | |
| Endosulfan Sulfate | 0.99 | 0.080 | µg/L | 1.00 | | 98.9 | 40-140 | 0.102 | | 20 | |
| Endosulfan Sulfate [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.2 | 40-140 | 0.0560 | | 20 | |
| Endrin | 0.97 | 0.080 | µg/L | 1.00 | | 96.7 | 40-140 | 3.06 | | 20 | |
| Endrin [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 97.7 | 40-140 | 3.09 | | 20 | |
| Endrin Aldehyde | 0.91 | 0.080 | µg/L | 1.00 | | 91.0 | 40-140 | 2.48 | | 20 | |
| Endrin Aldehyde [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 94.2 | 40-140 | 2.45 | | 20 | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | 0.519 | | 20 | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | 0.215 | | 20 | |
| Heptachlor | 0.86 | 0.050 | µg/L | 1.00 | | 85.9 | 40-140 | 19.9 | | 20 | |
| Heptachlor [2C] | 0.88 | 0.050 | µg/L | 1.00 | | 87.7 | 40-140 | 18.5 | | 20 | |
| Heptachlor Epoxide | 0.92 | 0.050 | µg/L | 1.00 | | 91.5 | 40-140 | 6.13 | | 20 | |
| Heptachlor Epoxide [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 91.8 | 40-140 | 6.40 | | 20 | |
| Hexachlorobenzene | 0.98 | 0.050 | µg/L | 1.00 | | 98.2 | 40-140 | 9.11 | | 20 | |
| Hexachlorobenzene [2C] | 1.1 | 0.050 | µg/L | 1.00 | | 106 | 40-140 | 8.01 | | 20 | V-06 |
| Methoxychlor | 1.0 | 0.50 | µg/L | 1.00 | | 104 | 40-140 | 1.03 | | 20 | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | | 107 | 40-140 | 0.355 | | 20 | |
| Surrogate: Decachlorobiphenyl | *1.83* | | µg/L | 2.00 | | 91.3 | 30-150 | | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.07* | | µg/L | 2.00 | | 103 | 30-150 | | | | |
| Surrogate: Tetrachloro-m-xylene | *1.60* | | µg/L | 2.00 | | 79.8 | 30-150 | | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.61* | | µg/L | 2.00 | | 80.6 | 30-150 | | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike (B228767-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Alachlor | 0.83 | 0.20 | µg/L | 1.00 | ND | 82.7 | 30-150 | | | |
| Alachlor [2C] | 0.81 | 0.20 | µg/L | 1.00 | ND | 81.3 | 30-150 | | | |
| Aldrin | 0.88 | 0.050 | µg/L | 1.00 | ND | 87.7 | 30-150 | | | |
| Aldrin [2C] | 0.87 | 0.050 | µg/L | 1.00 | ND | 87.0 | 30-150 | | | |
| alpha-BHC | 0.72 | 0.050 | µg/L | 1.00 | ND | 72.5 | 30-150 | | | R-05 |
| alpha-BHC [2C] | 0.74 | 0.050 | µg/L | 1.00 | ND | 73.7 | 30-150 | | | R-05 |
| beta-BHC | 0.84 | 0.050 | µg/L | 1.00 | ND | 83.8 | 30-150 | | | |
| beta-BHC [2C] | 0.89 | 0.050 | µg/L | 1.00 | ND | 88.9 | 30-150 | | | |
| delta-BHC | 0.84 | 0.050 | µg/L | 1.00 | ND | 83.7 | 30-150 | | | |
| delta-BHC [2C] | 0.82 | 0.050 | µg/L | 1.00 | ND | 82.0 | 30-150 | | | |
| gamma-BHC (Lindane) | 0.76 | 0.030 | µg/L | 1.00 | ND | 76.0 | 30-150 | | | R-05 |
| gamma-BHC (Lindane) [2C] | 0.77 | 0.030 | µg/L | 1.00 | ND | 76.6 | 30-150 | | | R-05 |
| 4,4'-DDD | 0.97 | 0.040 | µg/L | 1.00 | ND | 96.6 | 30-150 | | | |
| 4,4'-DDD [2C] | 0.93 | 0.040 | µg/L | 1.00 | ND | 92.9 | 30-150 | | | |
| 4,4'-DDE | 0.99 | 0.040 | µg/L | 1.00 | ND | 99.2 | 30-150 | | | |
| 4,4'-DDE [2C] | 0.96 | 0.040 | µg/L | 1.00 | ND | 95.9 | 30-150 | | | |
| 4,4'-DDT | 0.96 | 0.040 | µg/L | 1.00 | ND | 95.6 | 30-150 | | | |
| 4,4'-DDT [2C] | 0.96 | 0.040 | µg/L | 1.00 | ND | 96.0 | 30-150 | | | |
| Dieldrin | 0.89 | 0.0020 | µg/L | 1.00 | ND | 88.9 | 30-150 | | | |
| Dieldrin [2C] | 0.86 | 0.0020 | µg/L | 1.00 | ND | 85.8 | 30-150 | | | |
| Endosulfan I | 0.88 | 0.050 | µg/L | 1.00 | ND | 87.7 | 30-150 | | | |
| Endosulfan I [2C] | 0.89 | 0.050 | µg/L | 1.00 | ND | 89.2 | 30-150 | | | |
| Endosulfan II | 0.91 | 0.080 | µg/L | 1.00 | ND | 91.1 | 30-150 | | | |
| Endosulfan II [2C] | 0.91 | 0.080 | µg/L | 1.00 | ND | 91.5 | 30-150 | | | |
| Endosulfan Sulfate | 0.92 | 0.080 | µg/L | 1.00 | ND | 92.1 | 30-150 | | | |
| Endosulfan Sulfate [2C] | 0.90 | 0.080 | µg/L | 1.00 | ND | 89.7 | 30-150 | | | |
| Endrin | 0.93 | 0.080 | µg/L | 1.00 | ND | 92.8 | 30-150 | | | |
| Endrin [2C] | 0.92 | 0.080 | µg/L | 1.00 | ND | 92.1 | 30-150 | | | |
| Endrin Aldehyde | 0.86 | 0.080 | µg/L | 1.00 | ND | 85.5 | 30-150 | | | |
| Endrin Aldehyde [2C] | 0.87 | 0.080 | µg/L | 1.00 | ND | 86.6 | 30-150 | | | |
| Endrin Ketone | 0.94 | 0.080 | µg/L | 1.00 | ND | 93.5 | 30-150 | | | |
| Endrin Ketone [2C] | 0.93 | 0.080 | µg/L | 1.00 | ND | 93.4 | 30-150 | | | |
| Heptachlor | 0.78 | 0.050 | µg/L | 1.00 | ND | 78.4 | 30-150 | | | |
| Heptachlor [2C] | 0.80 | 0.050 | µg/L | 1.00 | ND | 79.6 | 30-150 | | | |
| Heptachlor Epoxide | 0.86 | 0.050 | µg/L | 1.00 | ND | 86.4 | 30-150 | | | |
| Heptachlor Epoxide [2C] | 0.85 | 0.050 | µg/L | 1.00 | ND | 85.2 | 30-150 | | | |
| Hexachlorobenzene | 0.91 | 0.050 | µg/L | 1.00 | ND | 90.9 | 30-150 | | | |
| Hexachlorobenzene [2C] | 0.97 | 0.050 | µg/L | 1.00 | ND | 97.2 | 30-150 | | | V-06 |
| Methoxychlor | 1.0 | 0.50 | µg/L | 1.00 | ND | 100 | 30-150 | | | |
| Methoxychlor [2C] | 1.0 | 0.50 | µg/L | 1.00 | ND | 100 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl | *1.41* | | µg/L | 2.00 | | 70.7 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.60* | | µg/L | 2.00 | | 80.1 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.43* | | µg/L | 2.00 | | 71.7 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.43* | | µg/L | 2.00 | | 71.5 | 30-150 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B228767-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/22/19 Analyzed: 04/24/19 | | | | | | |
| Alachlor | 0.78 | 0.20 | µg/L | 1.00 | ND | 77.7 | 30-150 | 6.31 | 30 | |
| Alachlor [2C] | 0.73 | 0.20 | µg/L | 1.00 | ND | 72.8 | 30-150 | 11.0 | 30 | |
| Aldrin | 0.78 | 0.050 | µg/L | 1.00 | ND | 78.0 | 30-150 | 11.7 | 30 | |
| Aldrin [2C] | 0.78 | 0.050 | µg/L | 1.00 | ND | 77.7 | 30-150 | 11.4 | 30 | |
| alpha-BHC | 0.54 | 0.050 | µg/L | 1.00 | ND | 54.0 | 30-150 | 29.2 | 30 | R-05 |
| alpha-BHC [2C] | 0.55 | 0.050 | µg/L | 1.00 | ND | 55.2 | 30-150 | 28.6 | 30 | R-05 |
| beta-BHC | 0.72 | 0.050 | µg/L | 1.00 | ND | 72.1 | 30-150 | 15.0 | 30 | |
| beta-BHC [2C] | 0.75 | 0.050 | µg/L | 1.00 | ND | 75.4 | 30-150 | 16.4 | 30 | |
| delta-BHC | 0.69 | 0.050 | µg/L | 1.00 | ND | 69.4 | 30-150 | 18.7 | 30 | |
| delta-BHC [2C] | 0.69 | 0.050 | µg/L | 1.00 | ND | 68.7 | 30-150 | 17.6 | 30 | |
| gamma-BHC (Lindane) | 0.59 | 0.030 | µg/L | 1.00 | ND | 59.2 | 30-150 | 24.8 | 30 | R-05 |
| gamma-BHC (Lindane) [2C] | 0.60 | 0.030 | µg/L | 1.00 | ND | 60.1 | 30-150 | 24.1 | 30 | R-05 |
| 4,4'-DDD | 0.91 | 0.040 | µg/L | 1.00 | ND | 90.6 | 30-150 | 6.40 | 30 | |
| 4,4'-DDD [2C] | 0.87 | 0.040 | µg/L | 1.00 | ND | 87.2 | 30-150 | 6.33 | 30 | |
| 4,4'-DDE | 0.93 | 0.040 | µg/L | 1.00 | ND | 93.3 | 30-150 | 6.04 | 30 | |
| 4,4'-DDE [2C] | 0.90 | 0.040 | µg/L | 1.00 | ND | 90.1 | 30-150 | 6.24 | 30 | |
| 4,4'-DDT | 0.90 | 0.040 | µg/L | 1.00 | ND | 89.9 | 30-150 | 6.10 | 30 | |
| 4,4'-DDT [2C] | 0.90 | 0.040 | µg/L | 1.00 | ND | 90.2 | 30-150 | 6.32 | 30 | |
| Dieldrin | 0.82 | 0.0020 | µg/L | 1.00 | ND | 82.2 | 30-150 | 7.86 | 30 | |
| Dieldrin [2C] | 0.79 | 0.0020 | µg/L | 1.00 | ND | 79.2 | 30-150 | 7.94 | 30 | |
| Endosulfan I | 0.79 | 0.050 | µg/L | 1.00 | ND | 79.1 | 30-150 | 10.4 | 30 | |
| Endosulfan I [2C] | 0.81 | 0.050 | µg/L | 1.00 | ND | 81.0 | 30-150 | 9.65 | 30 | |
| Endosulfan II | 0.84 | 0.080 | µg/L | 1.00 | ND | 84.1 | 30-150 | 8.02 | 30 | |
| Endosulfan II [2C] | 0.84 | 0.080 | µg/L | 1.00 | ND | 84.4 | 30-150 | 8.02 | 30 | |
| Endosulfan Sulfate | 0.85 | 0.080 | µg/L | 1.00 | ND | 85.0 | 30-150 | 8.06 | 30 | |
| Endosulfan Sulfate [2C] | 0.83 | 0.080 | µg/L | 1.00 | ND | 82.6 | 30-150 | 8.27 | 30 | |
| Endrin | 0.84 | 0.080 | µg/L | 1.00 | ND | 84.4 | 30-150 | 9.43 | 30 | |
| Endrin [2C] | 0.84 | 0.080 | µg/L | 1.00 | ND | 84.0 | 30-150 | 9.17 | 30 | |
| Endrin Aldehyde | 0.78 | 0.080 | µg/L | 1.00 | ND | 77.6 | 30-150 | 9.68 | 30 | |
| Endrin Aldehyde [2C] | 0.79 | 0.080 | µg/L | 1.00 | ND | 78.9 | 30-150 | 9.28 | 30 | |
| Endrin Ketone | 0.88 | 0.080 | µg/L | 1.00 | ND | 87.5 | 30-150 | 6.64 | 30 | |
| Endrin Ketone [2C] | 0.87 | 0.080 | µg/L | 1.00 | ND | 87.1 | 30-150 | 6.97 | 30 | |
| Heptachlor | 0.64 | 0.050 | µg/L | 1.00 | ND | 64.3 | 30-150 | 19.8 | 30 | |
| Heptachlor [2C] | 0.66 | 0.050 | µg/L | 1.00 | ND | 65.8 | 30-150 | 19.1 | 30 | |
| Heptachlor Epoxide | 0.77 | 0.050 | µg/L | 1.00 | ND | 77.5 | 30-150 | 10.9 | 30 | |
| Heptachlor Epoxide [2C] | 0.77 | 0.050 | µg/L | 1.00 | ND | 76.6 | 30-150 | 10.6 | 30 | |
| Hexachlorobenzene | 0.81 | 0.050 | µg/L | 1.00 | ND | 80.8 | 30-150 | 11.8 | 30 | |
| Hexachlorobenzene [2C] | 0.86 | 0.050 | µg/L | 1.00 | ND | 86.4 | 30-150 | 11.8 | 30 | V-06 |
| Methoxychlor | 0.95 | 0.50 | µg/L | 1.00 | ND | 94.8 | 30-150 | 5.78 | 30 | |
| Methoxychlor [2C] | 0.95 | 0.50 | µg/L | 1.00 | ND | 94.7 | 30-150 | 5.87 | 30 | |
| Surrogate: Decachlorobiphenyl | *1.33* | | µg/L | 2.00 | | 66.3 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.50* | | µg/L | 2.00 | | 74.8 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.25* | | µg/L | 2.00 | | 62.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.25* | | µg/L | 2.00 | | 62.3 | 30-150 | | | |

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**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228769 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228769-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| CT ETPH | ND | 0.15 | mg/L | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0893* | | mg/L | 0.100 | | 89.3 | 50-150 | | | |
| **LCS (B228769-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| CT ETPH | 0.698 | 0.15 | mg/L | 1.00 | | 69.8 | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0875* | | mg/L | 0.100 | | 87.5 | 50-150 | | | |
| **LCS Dup (B228769-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| CT ETPH | 0.688 | 0.15 | mg/L | 1.00 | | 68.8 | 60-120 | 1.46 | 30 | |
| Surrogate: 2-Fluorobiphenyl | *0.0841* | | mg/L | 0.100 | | 84.1 | 50-150 | | | |
| **Matrix Spike (B228769-MS1)** | **Source: 19D0788-01** | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| CT ETPH | 0.834 | 0.15 | mg/L | 1.00 | 0.106 | 72.8 | 50-150 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0932* | | mg/L | 0.100 | | 93.2 | 50-150 | | | |
| **Matrix Spike Dup (B228769-MSD1)** | **Source: 19D0788-01** | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| CT ETPH | 0.961 | 0.15 | mg/L | 1.00 | 0.106 | 85.5 | 50-150 | 14.1 | 30 | |
| Surrogate: 2-Fluorobiphenyl | *0.0881* | | mg/L | 0.100 | | 88.1 | 50-150 | | | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228607 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B228607-BLK1)** | | | | Prepared: 04/18/19 Analyzed: 04/19/19 | | | | | | |
| Antimony | ND | 1.0 | µg/L | | | | | | | |
| Arsenic | ND | 0.40 | µg/L | | | | | | | |
| Barium | ND | 10 | µg/L | | | | | | | |
| Beryllium | ND | 0.40 | µg/L | | | | | | | |
| Cadmium | ND | 0.50 | µg/L | | | | | | | |
| Chromium | ND | 1.0 | µg/L | | | | | | | |
| Copper | ND | 5.0 | µg/L | | | | | | | |
| Lead | ND | 1.0 | µg/L | | | | | | | |
| Nickel | ND | 5.0 | µg/L | | | | | | | |
| Selenium | ND | 5.0 | µg/L | | | | | | | |
| Silver | ND | 0.50 | µg/L | | | | | | | |
| Thallium | ND | 0.20 | µg/L | | | | | | | |
| Vanadium | ND | 5.0 | µg/L | | | | | | | |
| Zinc | ND | 10 | µg/L | | | | | | | |
| **LCS (B228607-BS1)** | | | | Prepared: 04/18/19 Analyzed: 04/19/19 | | | | | | |
| Antimony | 491 | 10 | µg/L | 500 | | 98.3 | 80-120 | | | |
| Arsenic | 490 | 4.0 | µg/L | 500 | | 97.9 | 80-120 | | | |
| Barium | 486 | 100 | µg/L | 500 | | 97.3 | 80-120 | | | |
| Beryllium | 489 | 4.0 | µg/L | 500 | | 97.9 | 80-120 | | | |
| Cadmium | 484 | 5.0 | µg/L | 500 | | 96.7 | 80-120 | | | |
| Chromium | 500 | 10 | µg/L | 500 | | 100 | 80-120 | | | |
| Copper | 979 | 50 | µg/L | 1000 | | 97.9 | 80-120 | | | |
| Lead | 476 | 10 | µg/L | 500 | | 95.2 | 80-120 | | | |
| Nickel | 498 | 50 | µg/L | 500 | | 99.6 | 80-120 | | | |
| Selenium | 479 | 50 | µg/L | 500 | | 95.7 | 80-120 | | | |
| Silver | 492 | 5.0 | µg/L | 500 | | 98.3 | 80-120 | | | |
| Thallium | 451 | 2.0 | µg/L | 500 | | 90.2 | 80-120 | | | |
| Vanadium | 496 | 50 | µg/L | 500 | | 99.3 | 80-120 | | | |
| Zinc | 967 | 100 | µg/L | 1000 | | 96.7 | 80-120 | | | |
| **LCS Dup (B228607-BSD1)** | | | | Prepared: 04/18/19 Analyzed: 04/19/19 | | | | | | |
| Antimony | 483 | 10 | µg/L | 500 | | 96.7 | 80-120 | 1.63 | 20 | |
| Arsenic | 483 | 4.0 | µg/L | 500 | | 96.6 | 80-120 | 1.36 | 20 | |
| Barium | 477 | 100 | µg/L | 500 | | 95.3 | 80-120 | 1.98 | 20 | |
| Beryllium | 485 | 4.0 | µg/L | 500 | | 97.1 | 80-120 | 0.833 | 20 | |
| Cadmium | 475 | 5.0 | µg/L | 500 | | 95.0 | 80-120 | 1.82 | 20 | |
| Chromium | 490 | 10 | µg/L | 500 | | 98.0 | 80-120 | 2.03 | 20 | |
| Copper | 962 | 50 | µg/L | 1000 | | 96.2 | 80-120 | 1.73 | 20 | |
| Lead | 477 | 10 | µg/L | 500 | | 95.5 | 80-120 | 0.231 | 20 | |
| Nickel | 488 | 50 | µg/L | 500 | | 97.5 | 80-120 | 2.16 | 20 | |
| Selenium | 479 | 50 | µg/L | 500 | | 95.9 | 80-120 | 0.137 | 20 | |
| Silver | 481 | 5.0 | µg/L | 500 | | 96.1 | 80-120 | 2.28 | 20 | |
| Thallium | 453 | 2.0 | µg/L | 500 | | 90.7 | 80-120 | 0.522 | 20 | |
| Vanadium | 487 | 50 | µg/L | 500 | | 97.3 | 80-120 | 2.03 | 20 | |
| Zinc | 956 | 100 | µg/L | 1000 | | 95.6 | 80-120 | 1.19 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228607 - SW-846 3005A** | | | | | | | | | | | |
| **Matrix Spike (B228607-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/18/19 Analyzed: 04/19/19 | | | | | | | |
| Antimony | 484 | 10 | µg/L | 500 | ND | 96.8 | | 75-125 | | | |
| Arsenic | 483 | 4.0 | µg/L | 500 | ND | 96.5 | | 75-125 | | | |
| Barium | 523 | 100 | µg/L | 500 | ND | 105 | | 75-125 | | | |
| Beryllium | 488 | 4.0 | µg/L | 500 | ND | 97.6 | | 75-125 | | | |
| Cadmium | 473 | 5.0 | µg/L | 500 | ND | 94.7 | | 75-125 | | | |
| Chromium | 484 | 10 | µg/L | 500 | ND | 96.8 | | 75-125 | | | |
| Copper | 941 | 50 | µg/L | 1000 | ND | 94.1 | | 75-125 | | | |
| Lead | 477 | 10 | µg/L | 500 | ND | 95.5 | | 75-125 | | | |
| Nickel | 478 | 50 | µg/L | 500 | ND | 95.7 | | 75-125 | | | |
| Selenium | 471 | 50 | µg/L | 500 | ND | 94.3 | | 75-125 | | | |
| **Silver** | 341 | 5.0 | µg/L | 500 | ND | **68.2** | * | 75-125 | | | MS-07A |
| Thallium | 456 | 2.0 | µg/L | 500 | ND | 91.2 | | 75-125 | | | |
| Vanadium | 479 | 50 | µg/L | 500 | ND | 95.9 | | 75-125 | | | |
| Zinc | 944 | 100 | µg/L | 1000 | ND | 94.4 | | 75-125 | | | |
| **Matrix Spike Dup (B228607-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/18/19 Analyzed: 04/19/19 | | | | | | | |
| Antimony | 483 | 10 | µg/L | 500 | ND | 96.6 | | 75-125 | 0.231 | 20 | |
| Arsenic | 486 | 4.0 | µg/L | 500 | ND | 97.1 | | 75-125 | 0.611 | 20 | |
| Barium | 520 | 100 | µg/L | 500 | ND | 104 | | 75-125 | 0.581 | 20 | |
| Beryllium | 490 | 4.0 | µg/L | 500 | ND | 98.0 | | 75-125 | 0.388 | 20 | |
| Cadmium | 471 | 5.0 | µg/L | 500 | ND | 94.3 | | 75-125 | 0.429 | 20 | |
| Chromium | 482 | 10 | µg/L | 500 | ND | 96.4 | | 75-125 | 0.341 | 20 | |
| Copper | 949 | 50 | µg/L | 1000 | ND | 94.9 | | 75-125 | 0.803 | 20 | |
| Lead | 483 | 10 | µg/L | 500 | ND | 96.5 | | 75-125 | 1.10 | 20 | |
| Nickel | 485 | 50 | µg/L | 500 | ND | 97.1 | | 75-125 | 1.46 | 20 | |
| Selenium | 473 | 50 | µg/L | 500 | ND | 94.7 | | 75-125 | 0.419 | 20 | |
| **Silver** | 330 | 5.0 | µg/L | 500 | ND | **66.0** | * | 75-125 | 3.29 | 20 | MS-07A |
| Thallium | 460 | 2.0 | µg/L | 500 | ND | 92.1 | | 75-125 | 0.967 | 20 | |
| Vanadium | 481 | 50 | µg/L | 500 | ND | 96.2 | | 75-125 | 0.379 | 20 | |
| Zinc | 951 | 100 | µg/L | 1000 | ND | 95.1 | | 75-125 | 0.674 | 20 | |
| **Batch B228782 - SW-846 7470A Prep** | | | | | | | | | | | |
| **Blank (B228782-BLK1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | | |
| **LCS (B228782-BS1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| Mercury | 0.00376 | 0.00010 | mg/L | 0.00400 | | 94.1 | | 80-120 | | | |
| **LCS Dup (B228782-BSD1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| Mercury | 0.00365 | 0.00010 | mg/L | 0.00400 | | 91.3 | | 80-120 | 3.01 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228782 - SW-846 7470A Prep** | | | | | | | | | | |
| **Matrix Spike (B228782-MS1)** | | **Source: 19D0788-01** | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | |
| Mercury | 0.00354 | 0.00010 | mg/L | 0.00400 | ND | 88.5 | 75-125 | | | |
| **Matrix Spike Dup (B228782-MSD1)** | | **Source: 19D0788-01** | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | |
| Mercury | 0.00363 | 0.00010 | mg/L | 0.00400 | ND | 90.7 | 75-125 | 2.46 | 20 | |

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BREAKDOWN REPORT

**Lab Sample ID:** **S035027-PEM1** **Analyzed:** **04/23/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 3.79 |
| Endrin [1] | 3.09 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 4.84 |
| Endrin [2] | 3.72 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035027-PEM2** **Analyzed:** **04/23/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 4.44 |
| Endrin [1] | 4.33 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 5.59 |
| Endrin [2] | 4.65 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS**

Lab Sample ID: B228767-BS1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.923 | 6.894 | 6.954 | 1.0 | |
| | 2 | 6.838 | 6.809 | 6.869 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.500 | 6.470 | 6.530 | 1.0 | |
| | 2 | 6.432 | 6.404 | 6.464 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.130 | 7.100 | 7.160 | 1.0 | |
| | 2 | 7.065 | 7.037 | 7.097 | 1.0 | 0.0 |
| Alachlor | 1 | 5.965 | 5.935 | 5.995 | 0.89 | |
| | 2 | 5.683 | 5.653 | 5.713 | 0.84 | 5.8 |
| Aldrin | 1 | 5.864 | 5.833 | 5.893 | 0.86 | |
| | 2 | 5.725 | 5.695 | 5.755 | 0.87 | 0.0 |
| alpha-BHC | 1 | 5.206 | 5.176 | 5.236 | 0.61 | |
| | 2 | 5.104 | 5.074 | 5.134 | 0.63 | 3.2 |
| alpha-Chlordane | 1 | 6.437 | 6.407 | 6.467 | 0.92 | |
| | 2 | 6.302 | 6.273 | 6.333 | 0.95 | 3.2 |
| beta-BHC | 1 | 5.443 | 5.413 | 5.473 | 0.84 | |
| | 2 | 5.345 | 5.315 | 5.375 | 0.88 | 4.7 |
| delta-BHC | 1 | 5.548 | 5.519 | 5.579 | 0.81 | |
| | 2 | 5.506 | 5.476 | 5.536 | 0.81 | 0.0 |
| Dieldrin | 1 | 6.696 | 6.666 | 6.726 | 0.92 | |
| | 2 | 6.518 | 6.489 | 6.549 | 0.90 | 2.2 |
| Endosulfan I | 1 | 6.527 | 6.497 | 6.557 | 0.89 | |
| | 2 | 6.333 | 6.303 | 6.363 | 0.92 | 3.3 |
| Endosulfan II | 1 | 7.023 | 6.993 | 7.053 | 0.97 | |
| | 2 | 6.879 | 6.850 | 6.910 | 0.99 | 2.0 |
| Endosulfan Sulfate | 1 | 7.665 | 7.635 | 7.695 | 0.99 | |
| | 2 | 7.337 | 7.309 | 7.369 | 0.98 | 1.0 |
| Endrin | 1 | 6.859 | 6.829 | 6.889 | 0.94 | |
| | 2 | 6.724 | 6.695 | 6.755 | 0.95 | 1.1 |
| Endrin Aldehyde | 1 | 7.334 | 7.304 | 7.364 | 0.93 | |
| | 2 | 7.127 | 7.098 | 7.158 | 0.97 | 4.2 |
| Endrin Ketone | 1 | 7.875 | 7.845 | 7.905 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B228767-BS1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.729 | 7.699 | 7.759 | 1.0 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.390 | 5.360 | 5.420 | 0.67 | |
| | 2 | 5.293 | 5.263 | 5.323 | 0.69 | 2.9 |
| gamma-Chlordane | 1 | 6.347 | 6.317 | 6.377 | 0.91 | |
| | 2 | 6.206 | 6.176 | 6.236 | 0.94 | 3.2 |
| Heptachlor | 1 | 5.676 | 5.646 | 5.706 | 0.70 | |
| | 2 | 5.538 | 5.509 | 5.569 | 0.73 | 4.2 |
| Heptachlor Epoxide | 1 | 6.261 | 6.231 | 6.291 | 0.86 | |
| | 2 | 6.080 | 6.051 | 6.111 | 0.86 | 0.0 |
| Hexachlorobenzene | 1 | 5.109 | 5.078 | 5.138 | 0.90 | |
| | 2 | 5.030 | 4.999 | 5.059 | 0.98 | 8.5 |
| Methoxychlor | 1 | 7.513 | 7.483 | 7.543 | 1.1 | |
| | 2 | 7.605 | 7.575 | 7.635 | 1.1 | 0.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B228767-BSD1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.924 | 6.894 | 6.954 | 1.0 | |
| | 2 | 6.839 | 6.809 | 6.869 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.500 | 6.470 | 6.530 | 1.0 | |
| | 2 | 6.434 | 6.404 | 6.464 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.130 | 7.100 | 7.160 | 1.0 | |
| | 2 | 7.067 | 7.037 | 7.097 | 1.0 | 0.0 |
| Alachlor | 1 | 5.964 | 5.935 | 5.995 | 0.88 | |
| | 2 | 5.683 | 5.653 | 5.713 | 0.88 | 0.0 |
| Aldrin | 1 | 5.864 | 5.833 | 5.893 | 0.94 | |
| | 2 | 5.726 | 5.695 | 5.755 | 0.94 | 0.0 |
| alpha-BHC | 1 | 5.206 | 5.176 | 5.236 | 0.81 | |
| | 2 | 5.104 | 5.074 | 5.134 | 0.83 | 2.4 |
| alpha-Chlordane | 1 | 6.438 | 6.407 | 6.467 | 0.95 | |
| | 2 | 6.303 | 6.273 | 6.333 | 0.97 | 2.1 |
| beta-BHC | 1 | 5.443 | 5.413 | 5.473 | 0.91 | |
| | 2 | 5.345 | 5.315 | 5.375 | 0.94 | 3.2 |
| delta-BHC | 1 | 5.549 | 5.519 | 5.579 | 0.90 | |
| | 2 | 5.506 | 5.476 | 5.536 | 0.91 | 1.1 |
| Dieldrin | 1 | 6.696 | 6.666 | 6.726 | 0.94 | |
| | 2 | 6.519 | 6.489 | 6.549 | 0.91 | 3.2 |
| Endosulfan I | 1 | 6.528 | 6.497 | 6.557 | 0.93 | |
| | 2 | 6.334 | 6.303 | 6.363 | 0.96 | 3.2 |
| Endosulfan II | 1 | 7.023 | 6.993 | 7.053 | 0.97 | |
| | 2 | 6.880 | 6.850 | 6.910 | 0.99 | 2.0 |
| Endosulfan Sulfate | 1 | 7.665 | 7.635 | 7.695 | 0.99 | |
| | 2 | 7.339 | 7.309 | 7.369 | 0.98 | 1.0 |
| Endrin | 1 | 6.859 | 6.829 | 6.889 | 0.97 | |
| | 2 | 6.726 | 6.695 | 6.755 | 0.98 | 1.0 |
| Endrin Aldehyde | 1 | 7.333 | 7.304 | 7.364 | 0.91 | |
| | 2 | 7.128 | 7.098 | 7.158 | 0.94 | 3.2 |
| Endrin Ketone | 1 | 7.875 | 7.845 | 7.905 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B228767-BSD1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.730 | 7.699 | 7.759 | 1.0 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.389 | 5.360 | 5.420 | 0.84 | |
| | 2 | 5.294 | 5.263 | 5.323 | 0.86 | 2.4 |
| gamma-Chlordane | 1 | 6.346 | 6.317 | 6.377 | 0.94 | |
| | 2 | 6.207 | 6.176 | 6.236 | 0.97 | 3.1 |
| Heptachlor | 1 | 5.676 | 5.646 | 5.706 | 0.86 | |
| | 2 | 5.539 | 5.509 | 5.569 | 0.88 | 2.3 |
| Heptachlor Epoxide | 1 | 6.261 | 6.231 | 6.291 | 0.92 | |
| | 2 | 6.081 | 6.051 | 6.111 | 0.92 | 0.0 |
| Hexachlorobenzene | 1 | 5.109 | 5.078 | 5.138 | 0.98 | |
| | 2 | 5.030 | 4.999 | 5.059 | 1.1 | 11.5 |
| Methoxychlor | 1 | 7.513 | 7.483 | 7.543 | 1.0 | |
| | 2 | 7.605 | 7.575 | 7.635 | 1.1 | 9.5 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**Matrix Spike**

Lab Sample ID: B228767-MS1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.923 | 6.894 | 6.954 | 0.97 | |
| | 2 | 6.839 | 6.809 | 6.869 | 0.93 | 4.2 |
| 4,4'-DDE | 1 | 6.500 | 6.469 | 6.529 | 0.99 | |
| | 2 | 6.433 | 6.403 | 6.463 | 0.96 | 3.1 |
| 4,4'-DDT | 1 | 7.129 | 7.100 | 7.160 | 0.96 | |
| | 2 | 7.066 | 7.036 | 7.096 | 0.96 | 0.0 |
| Alachlor | 1 | 5.964 | 5.934 | 5.994 | 0.83 | |
| | 2 | 5.683 | 5.653 | 5.713 | 0.81 | 2.4 |
| Aldrin | 1 | 5.863 | 5.833 | 5.893 | 0.88 | |
| | 2 | 5.725 | 5.695 | 5.755 | 0.87 | 1.1 |
| alpha-BHC | 1 | 5.206 | 5.176 | 5.236 | 0.72 | |
| | 2 | 5.104 | 5.075 | 5.135 | 0.74 | 1.4 |
| beta-BHC | 1 | 5.444 | 5.413 | 5.473 | 0.84 | |
| | 2 | 5.345 | 5.315 | 5.375 | 0.89 | 5.8 |
| delta-BHC | 1 | 5.548 | 5.518 | 5.578 | 0.84 | |
| | 2 | 5.506 | 5.477 | 5.537 | 0.82 | 2.4 |
| Dieldrin | 1 | 6.696 | 6.665 | 6.725 | 0.89 | |
| | 2 | 6.518 | 6.488 | 6.548 | 0.86 | 3.4 |
| Endosulfan I | 1 | 6.527 | 6.497 | 6.557 | 0.88 | |
| | 2 | 6.333 | 6.303 | 6.363 | 0.89 | 1.1 |
| Endosulfan II | 1 | 7.022 | 6.992 | 7.052 | 0.91 | |
| | 2 | 6.879 | 6.850 | 6.910 | 0.91 | 0.0 |
| Endosulfan Sulfate | 1 | 7.665 | 7.634 | 7.694 | 0.92 | |
| | 2 | 7.338 | 7.308 | 7.368 | 0.90 | 2.2 |
| Endrin | 1 | 6.859 | 6.829 | 6.889 | 0.93 | |
| | 2 | 6.725 | 6.695 | 6.755 | 0.92 | 1.1 |
| Endrin Aldehyde | 1 | 7.332 | 7.303 | 7.363 | 0.86 | |
| | 2 | 7.128 | 7.098 | 7.158 | 0.87 | 1.2 |
| Endrin Ketone | 1 | 7.875 | 7.845 | 7.905 | 0.94 | |
| | 2 | 7.729 | 7.700 | 7.760 | 0.93 | 1.1 |
| gamma-BHC (Lindane) | 1 | 5.389 | 5.359 | 5.419 | 0.76 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**Matrix Spike**

Lab Sample ID: B228767-MS1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 5.293 | 5.264 | 5.324 | 0.77 | 1.3 |
| Heptachlor | 1 | 5.676 | 5.645 | 5.705 | 0.78 | |
| | 2 | 5.539 | 5.509 | 5.569 | 0.80 | 2.5 |
| Heptachlor Epoxide | 1 | 6.260 | 6.231 | 6.291 | 0.86 | |
| | 2 | 6.081 | 6.051 | 6.111 | 0.85 | 1.2 |
| Hexachlorobenzene | 1 | 5.109 | 5.078 | 5.138 | 0.91 | |
| | 2 | 5.030 | 5.000 | 5.060 | 0.97 | 6.4 |
| Methoxychlor | 1 | 7.512 | 7.483 | 7.543 | 1.0 | |
| | 2 | 7.605 | 7.575 | 7.635 | 1.0 | 0.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**Matrix Spike Dup**

Lab Sample ID: B228767-MSD1 Date(s) Analyzed: 04/24/2019 04/24/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.923 | 6.894 | 6.954 | 0.91 | |
| | 2 | 6.839 | 6.809 | 6.869 | 0.87 | 4.5 |
| 4,4'-DDE | 1 | 6.499 | 6.469 | 6.529 | 0.93 | |
| | 2 | 6.434 | 6.403 | 6.463 | 0.90 | 3.3 |
| 4,4'-DDT | 1 | 7.130 | 7.100 | 7.160 | 0.90 | |
| | 2 | 7.066 | 7.036 | 7.096 | 0.90 | 0.0 |
| Alachlor | 1 | 5.964 | 5.934 | 5.994 | 0.78 | |
| | 2 | 5.683 | 5.653 | 5.713 | 0.73 | 6.6 |
| Aldrin | 1 | 5.863 | 5.833 | 5.893 | 0.78 | |
| | 2 | 5.725 | 5.695 | 5.755 | 0.78 | 0.0 |
| alpha-BHC | 1 | 5.206 | 5.176 | 5.236 | 0.54 | |
| | 2 | 5.104 | 5.075 | 5.135 | 0.55 | 1.8 |
| beta-BHC | 1 | 5.443 | 5.413 | 5.473 | 0.72 | |
| | 2 | 5.345 | 5.315 | 5.375 | 0.75 | 4.1 |
| delta-BHC | 1 | 5.548 | 5.518 | 5.578 | 0.69 | |
| | 2 | 5.506 | 5.477 | 5.537 | 0.69 | 0.0 |
| Dieldrin | 1 | 6.695 | 6.665 | 6.725 | 0.82 | |
| | 2 | 6.519 | 6.488 | 6.548 | 0.79 | 3.7 |
| Endosulfan I | 1 | 6.527 | 6.497 | 6.557 | 0.79 | |
| | 2 | 6.333 | 6.303 | 6.363 | 0.81 | 2.5 |
| Endosulfan II | 1 | 7.022 | 6.992 | 7.052 | 0.84 | |
| | 2 | 6.880 | 6.850 | 6.910 | 0.84 | 0.0 |
| Endosulfan Sulfate | 1 | 7.665 | 7.634 | 7.694 | 0.85 | |
| | 2 | 7.339 | 7.308 | 7.368 | 0.83 | 2.4 |
| Endrin | 1 | 6.858 | 6.829 | 6.889 | 0.84 | |
| | 2 | 6.725 | 6.695 | 6.755 | 0.84 | 0.0 |
| Endrin Aldehyde | 1 | 7.333 | 7.303 | 7.363 | 0.78 | |
| | 2 | 7.128 | 7.098 | 7.158 | 0.79 | 1.3 |
| Endrin Ketone | 1 | 7.874 | 7.845 | 7.905 | 0.88 | |
| | 2 | 7.730 | 7.700 | 7.760 | 0.87 | 1.1 |
| gamma-BHC (Lindane) | 1 | 5.389 | 5.359 | 5.419 | 0.59 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**Matrix Spike Dup**

Lab Sample ID: B228767-MSD1 Date(s) Analyzed: 04/24/2019 04/24/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 5.293 | 5.264 | 5.324 | 0.60 | 1.7 |
| Heptachlor | 1 | 5.675 | 5.645 | 5.705 | 0.64 | |
| | 2 | 5.539 | 5.509 | 5.569 | 0.66 | 3.1 |
| Heptachlor Epoxide | 1 | 6.260 | 6.231 | 6.291 | 0.77 | |
| | 2 | 6.081 | 6.051 | 6.111 | 0.77 | 1.3 |
| Hexachlorobenzene | 1 | 5.108 | 5.078 | 5.138 | 0.81 | |
| | 2 | 5.030 | 5.000 | 5.060 | 0.86 | 6.0 |
| Methoxychlor | 1 | 7.513 | 7.483 | 7.543 | 0.95 | |
| | 2 | 7.606 | 7.575 | 7.635 | 0.95 | 0.0 |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| MS-07A | Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possiblity of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated. |
| MS-24 | Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery. |
| R-05 | Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound. |
| V-06 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound. |
| V-34 | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Soil*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Soil*** | |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |
| 1,1-Dichloroethane | CT,NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2020 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2020 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB

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# CHAIN OF CUSTODY RECORD

19D0788

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Telephone:
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticide | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 10 | 6 (PB) | 10 | 8 | 20 | 8 | | | | | # of Containers |
| | | | | | | | | I | N | I | I | H | I | | | | | ** Preservation |
| | | | | | | | | A | P | A | A | V | A | | | | | ***Container Code |
| 1 | MW-28-041519-1 | 4/15/19 | 0925 | | X | GW | U | X | X | X | X | X | X | | | | | |
| 2 | MW-35-041519-1 | 4/15/19 | 1151 | | X | GW | U | X | X | X | | X | X | | | | | |
| 3 | Voc Trip Blank | 4/15/19 | LAB | | | | | | | | | X | | | | | | |
| 4 | MW-D4-041519-1 | 4/15/19 | 1350 | | X | GW | U | X | X | X | X | X | | | | | | |
| 5 | MW-H29-041519-1 | 4/15/19 | 1420 | | X | GW | U | X | X | X | X | X | X | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | |

ANALYSIS REQUESTED

Comments:
MW-28-041519-1 MS/MSD for all analyses.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals
○ Field Filtered
○ Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| | | |
|---|---|---|
| Relinquished by: (signature) | 4/15/19 | Date/Time: 1506 |
| Received by: (signature) AB | 4-15-19 | Date/Time: 1506 |
| Relinquished by: (signature) AB | 4-15-19 | Date/Time: 1930 |
| Received by: (signature) 2.6, 3.5, 4.9, 5.0 | | Date/Time: 4/15/19 [illegible] |

Turnaround ††
◉ 7-Day
☐ 10-Day
☐ Other ____
RUSH †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
Require lab approval

Detection Limit Requirements
Massachusetts:
Connecticut: GWPC/SWPC
Other:

Is your project MCP or RCP ?
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** MP Date 4/15/19 Time 19:30

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 3 Actual Temp - 2.6, 3.5, 4.9, 5.0
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis ID's T Sampler Name T
Project T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? F Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? N/A MS/MSD? T
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? T On COC? T
Do all samples have the proper pH? Acid HCL Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 36 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 20 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 4 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

C:\MSDCHEM\4\DATA\D042319\D0423030.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | D0423030.D |
| Data File Path | C:\MSDCHEM\4\DATA\D042319\ |
| Operator | RMW |
| Date Acquired | 4/23/2019 14:06 |
| Acq. Method File | EPH11D.M |
| Sample Name | ETPH 1500 |
| Instrument Name | GCFID4 |

| Name | Ret Time | Target Response | Average Response | *%D+/-20 |
|---|---|---|---|---|
| C-9 | 1.60 | 7823278 | 8469561 | 8 |
| C-10 | 2.25 | 8074660 | 8469561 | 5 |
| C-12 | 3.20 | 8525941 | 8469561 | -1 |
| C-14 | 3.92 | 8883394 | 8469561 | -5 |
| C-16 | 4.54 | 8981493 | 8469561 | -6 |
| C-18 | 5.09 | 8777850 | 8469561 | -4 |
| C-20 | 5.71 | 8997619 | 8469561 | -6 |
| C-22 | 6.46 | 9101501 | 8469561 | -7 |
| C-24 | 7.31 | 8216726 | 8469561 | 3 |
| C-26 | 8.12 | 8883308 | 8469561 | -5 |
| C-28 | 8.86 | 8641518 | 8469561 | -2 |
| C-30 | 9.55 | 8488299 | 8469561 | 0 |
| C-32 | 10.19 | 8266539 | 8469561 | 2 |
| C-34 | 10.79 | 7806650 | 8469561 | 8 |
| C-36 | 11.39 | 7574643 | 8469561 | 11 |

**Samples**

19D0788-01
19D0788-04
19D0788-05
19D0853-01
19D0853-02
19D0853-03
19D0853-04

*One compound allowed %D</=50%

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 19D0788

***Laboratory Sample ID(s):***
19D0788-01 thru 19D0788-05

***Sample Date(s):***
04/15/2019

*List RCP Methods Used:*

CTDEP ETPH, SW-846 6020B, SW-846 7470A, SW-846 8081B, SW-846 8260C, SW-846 8270D

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington

**Position:** **Technical Representative**

**Printed Name:** **Lisa A. Worthington**

**Date:** **04/24/19**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 25, 2019

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19D0862

Enclosed are results of analyses for samples received by the laboratory on April 16, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 8

19D0862-01 8

19D0862-02 9

19D0862-03 16

19D0862-04 23

19D0862-05 24

19D0862-06 26

19D0862-07 31

19D0862-08 37

19D0862-09 39

19D0862-10 45

19D0862-11 46

Sample Preparation Information 47

QC Data 49

PCB Homologues by GC/MS Water 49

B228768 49

Volatile Organic Compounds by GC/MS 50

B228644 50

Semivolatile Organic Compounds by GC/MS 53

B228887 53

Organochloride Pesticides by GC/ECD 55

B228767 55

Petroleum Hydrocarbons Analyses 58

# Table of Contents (continued)


B228884 58

Metals Analyses (Total) 59

B228682 59

B228930 60

Pesticides Degradation Report 61

Dual Column RPD Report 62

Flag/Qualifier Summary 66

Certifications 67

Chain of Custody/Sample Receipt 72

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 4/25/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 19D0862

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-AJ19-041619-1 | 19D0862-01 | Ground Water | | EPA 680 Modified | |
| MW-515-041619-1 | 19D0862-02 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-515-041619-2 | 19D0862-03 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-AH16D-041619-1 | 19D0862-04 | Ground Water | | EPA 680 Modified | |
| VOC Trip Blank | 19D0862-05 | Trip Blank Water | | SW-846 8260C | |
| MW-P7-041619-1 | 19D0862-06 | Ground Water | | CTDEP ETPH | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-AH16R-041619-1 | 19D0862-07 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-X17-041619-1 | 19D0862-08 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| MW-N22-041619-1 | 19D0862-09 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-V18-041619-1 | 19D0862-10 | Ground Water | | EPA 680 Modified | |
| MW-V18-041619-2 | 19D0862-11 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270, only PAHs were requested and reported.

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CTDEP ETPH**

**Qualifications:**

**L-07**

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

**CT ETPH**
B228884-BSD1

**SW-846 6020B**

**Qualifications:**

**DL-03**

Elevated reporting limit due to matrix.

**Analyte & Samples(s) Qualified:**

**Arsenic**
19D0862-08[MW-X17-041619-1]

**SW-846 8081B**

**Qualifications:**

**R-05**

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.

**Analyte & Samples(s) Qualified:**

**alpha-BHC**
19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1

**alpha-BHC [2C]**
19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1

**gamma-BHC (Lindane)**
19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1

**gamma-BHC (Lindane) [2C]**
19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1

**V-06**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Hexachlorobenzene [2C]**
B228767-BS1, B228767-BSD1

**SW-846 8260C**

**Qualifications:**

**V-34**

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Bromomethane**
19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], 19D0862-05[ VOC Trip Blank], 19D0862-06[MW-P7-041619-1], 19D0862-07[MW-AH16R-041619-1], 19D0862-09[MW-N22-041619-1], B228644-BLK1, B228644-BS1, S035025-CCV1

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**
B228644-BS1, S035025-CCV1

**Carbon Disulfide**
B228644-BS1, S035025-CCV1

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-AJ19-041619-1**
Sampled: 4/16/2019 08:05
**Sample ID: 19D0862-01**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Dichlorobiphenyls | ND | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Trichlorobiphenyls | 0.0071 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Tetrachlorobiphenyls | 0.011 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Pentachlorobiphenyls | 0.0026 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |
| Total Polychlorinated biphenyls | 0.021 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:00 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 101 | 50-125 | | 4/23/19 18:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35

**Sample ID: 19D0862-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Dichlorobiphenyls | 0.0038 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Trichlorobiphenyls | 0.015 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Tetrachlorobiphenyls | 0.016 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Pentachlorobiphenyls | 0.0023 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |
| Total Polychlorinated biphenyls | 0.036 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 18:38 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 86.5 | 50-125 | | 4/23/19 18:38 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35
**Sample ID: 19D0862-02**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35
**Sample ID: 19D0862-02**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:22 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 | | 4/20/19 7:22 |
| Toluene-d8 | 101 | 70-130 | | 4/20/19 7:22 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/20/19 7:22 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35

**Sample ID: 19D0862-02**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 13:43 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 79.0 | 30-130 | | 4/24/19 13:43 |
| 2-Fluorobiphenyl | 52.8 | 30-130 | | 4/24/19 13:43 |
| p-Terphenyl-d14 | 53.1 | 30-130 | | 4/24/19 13:43 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35
**Sample ID: 19D0862-02**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Aldrin [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| alpha-BHC [1] | ND | 0.048 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| beta-BHC [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| delta-BHC [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.029 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Chlordane [1] | ND | 0.19 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| 4,4'-DDD [1] | ND | 0.038 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| 4,4'-DDE [1] | ND | 0.038 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| 4,4'-DDT [1] | ND | 0.038 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Dieldrin [1] | ND | 0.0019 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Endosulfan I [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Endosulfan II [1] | ND | 0.077 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Endosulfan sulfate [1] | ND | 0.077 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Endrin [1] | ND | 0.077 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Endrin aldehyde [1] | ND | 0.077 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Endrin ketone [1] | ND | 0.077 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Heptachlor [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Heptachlor epoxide [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Hexachlorobenzene [1] | ND | 0.048 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Methoxychlor [1] | ND | 0.48 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |
| Toxaphene [1] | ND | 0.96 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 22:40 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 56.1 | 30-150 | | 4/23/19 22:40 |
| Decachlorobiphenyl [2] | 64.2 | 30-150 | | 4/23/19 22:40 |
| Tetrachloro-m-xylene [1] | 50.5 | 30-150 | | 4/23/19 22:40 |
| Tetrachloro-m-xylene [2] | 50.4 | 30-150 | | 4/23/19 22:40 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35
**Sample ID: 19D0862-02**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.17 | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 15:33 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 80.6 | 50-150 | | 4/24/19 15:33 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-1**
Sampled: 4/16/2019 08:35
**Sample ID: 19D0862-02**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Arsenic | 2.2 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Barium | 110 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 12:52 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:36 | QNW |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Dichlorobiphenyls | 0.0030 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Trichlorobiphenyls | 0.016 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Tetrachlorobiphenyls | 0.016 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |
| Total Polychlorinated biphenyls | 0.036 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:15 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 103 | 50-125 | | 4/23/19 19:15 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 7:52 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/20/19 7:52 |
| Toluene-d8 | 102 | 70-130 | | 4/20/19 7:52 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/20/19 7:52 |

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Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.51 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Fluoranthene (SIM) | ND | 0.51 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Phenanthrene (SIM) | ND | 0.051 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 14:12 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 93.2 | 30-130 | | 4/24/19 14:12 |
| 2-Fluorobiphenyl | 62.3 | 30-130 | | 4/24/19 14:12 |
| p-Terphenyl-d14 | 63.2 | 30-130 | | 4/24/19 14:12 |

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Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Aldrin [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| alpha-BHC [1] | ND | 0.050 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| beta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| delta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | R-05 | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| 4,4'-DDE [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Endosulfan I [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Endosulfan II [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Endosulfan sulfate [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Endrin [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Endrin aldehyde [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Endrin ketone [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Heptachlor [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Heptachlor epoxide [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Hexachlorobenzene [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Methoxychlor [1] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |
| Toxaphene [1] | ND | 1.0 | µg/L | 1 | | SW-846 8081B | 4/22/19 | 4/23/19 23:07 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 68.4 | 30-150 | | 4/23/19 23:07 |
| Decachlorobiphenyl [2] | 79.0 | 30-150 | | 4/23/19 23:07 |
| Tetrachloro-m-xylene [1] | 68.3 | 30-150 | | 4/23/19 23:07 |
| Tetrachloro-m-xylene [2] | 67.5 | 30-150 | | 4/23/19 23:07 |

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Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.18 | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 15:53 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 90.2 | 50-150 | | 4/24/19 15:53 |

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Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-515-041619-2**
Sampled: 4/16/2019 08:40
**Sample ID: 19D0862-03**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Arsenic | 2.0 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Barium | 110 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 12:54 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:39 | QNW |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-AH16D-041619-1**
Sampled: 4/16/2019 08:55

**Sample ID: 19D0862-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0035 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Dichlorobiphenyls | 0.0060 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Trichlorobiphenyls | 0.0029 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |
| Total Polychlorinated biphenyls | 0.012 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 19:53 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.7 | 50-125 | | 4/23/19 19:53 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/16/2019 00:00
**Sample ID: 19D0862-05**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/16/2019 00:00
**Sample ID: 19D0862-05**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 2:14 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 4/20/19 2:14 |
| Toluene-d8 | 102 | 70-130 | | 4/20/19 2:14 |
| 4-Bromofluorobenzene | 103 | 70-130 | | 4/20/19 2:14 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-P7-041619-1**
Sampled: 4/16/2019 11:00
**Sample ID: 19D0862-06**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-P7-041619-1**
Sampled: 4/16/2019 11:00
**Sample ID: 19D0862-06**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:23 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 4/20/19 8:23 |
| Toluene-d8 | 101 | 70-130 | | 4/20/19 8:23 |
| 4-Bromofluorobenzene | 103 | 70-130 | | 4/20/19 8:23 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-P7-041619-1**
Sampled: 4/16/2019 11:00

**Sample ID: 19D0862-06**

Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:09 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 91.8 | 30-130 | | 4/24/19 16:09 |
| 2-Fluorobiphenyl | 60.6 | 30-130 | | 4/24/19 16:09 |
| p-Terphenyl-d14 | 68.1 | 30-130 | | 4/24/19 16:09 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-P7-041619-1**
Sampled: 4/16/2019 11:00
**Sample ID: 19D0862-06**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.16 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 16:13 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 82.3 | 50-150 | | 4/24/19 16:13 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-P7-041619-1**
Sampled: 4/16/2019 11:00
**Sample ID: 19D0862-06**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Arsenic | 0.78 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Barium | 66 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 12:55 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:43 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-AH16R-041619-1**
Sampled: 4/16/2019 10:55

**Sample ID: 19D0862-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 12 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Dichlorobiphenyls | 6.1 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Trichlorobiphenyls | 0.34 | 0.00097 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Tetrachlorobiphenyls | 0.087 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Pentachlorobiphenyls | 0.011 | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Hexachlorobiphenyls | ND | 0.0019 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |
| Total Polychlorinated biphenyls | 19 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 20:30 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 73.2 | 50-125 | | 4/23/19 20:30 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-AH16R-041619-1**
Sampled: 4/16/2019 10:55
**Sample ID: 19D0862-07**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-AH16R-041619-1**
Sampled: 4/16/2019 10:55
**Sample ID: 19D0862-07**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,2,4-Trimethylbenzene | 1.2 | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 8:53 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/20/19 8:53 |
| Toluene-d8 | 101 | 70-130 | | 4/20/19 8:53 |
| 4-Bromofluorobenzene | 101 | 70-130 | | 4/20/19 8:53 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-AH16R-041619-1**
Sampled: 4/16/2019 10:55
**Sample ID: 19D0862-07**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | 0.47 | 0.30 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 16:38 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 95.8 | 30-130 | | 4/24/19 16:38 |
| 2-Fluorobiphenyl | 63.0 | 30-130 | | 4/24/19 16:38 |
| p-Terphenyl-d14 | 70.4 | 30-130 | | 4/24/19 16:38 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-AH16R-041619-1**
Sampled: 4/16/2019 10:55
**Sample ID: 19D0862-07**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 1.5 | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 16:53 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 86.7 | 50-150 | | 4/24/19 16:53 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-AH16R-041619-1**
Sampled: 4/16/2019 10:55

**Sample ID: 19D0862-07**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Arsenic | 3.9 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Barium | 480 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 12:57 | TBC |
| Nickel | 5.7 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |
| Zinc | 30 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:46 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-X17-041619-1**
Sampled: 4/16/2019 12:40

**Sample ID: 19D0862-08**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0086 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Dichlorobiphenyls | 0.0051 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Trichlorobiphenyls | ND | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |
| Total Polychlorinated biphenyls | 0.014 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:08 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 99.4 | 50-125 | | 4/23/19 21:08 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-X17-041619-1**
Sampled: 4/16/2019 12:40
**Sample ID: 19D0862-08**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Arsenic | ND | 0.80 | µg/L | 2 | DL-03 | SW-846 6020B | 4/19/19 | 4/23/19 13:00 | QNW |
| Barium | 4600 | 100 | µg/L | 10 | | SW-846 6020B | 4/19/19 | 4/23/19 12:33 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Chromium | 3.0 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Copper | 20 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 12:58 | TBC |
| Nickel | 10 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |
| Zinc | 75 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:50 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-N22-041619-1**
Sampled: 4/16/2019 13:25

**Sample ID: 19D0862-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0034 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Dichlorobiphenyls | 0.0023 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |
| Total Polychlorinated biphenyls | 0.0058 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 21:45 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 102 | 50-125 | | 4/23/19 21:45 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-N22-041619-1**
Sampled: 4/16/2019 13:25
**Sample ID: 19D0862-09**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-N22-041619-1**
Sampled: 4/16/2019 13:25
**Sample ID: 19D0862-09**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/19/19 | 4/20/19 9:24 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/20/19 9:24 |
| Toluene-d8 | 101 | 70-130 | | 4/20/19 9:24 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/20/19 9:24 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-N22-041619-1**
Sampled: 4/16/2019 13:25
**Sample ID: 19D0862-09**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.30 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/23/19 | 4/24/19 17:08 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 91.3 | 30-130 | | 4/24/19 17:08 |
| 2-Fluorobiphenyl | 60.2 | 30-130 | | 4/24/19 17:08 |
| p-Terphenyl-d14 | 68.8 | 30-130 | | 4/24/19 17:08 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-N22-041619-1**
Sampled: 4/16/2019 13:25
**Sample ID: 19D0862-09**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 16:33 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 84.1 | 50-150 | | 4/24/19 16:33 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862
Date Received: 4/16/2019
**Field Sample #: MW-N22-041619-1**
Sampled: 4/16/2019 13:25
**Sample ID: 19D0862-09**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Arsenic | 0.49 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Barium | 72 | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 12:46 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/19/19 | 4/22/19 11:53 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-V18-041619-1**
Sampled: 4/16/2019 13:50

**Sample ID: 19D0862-10**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0024 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Dichlorobiphenyls | 0.011 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Trichlorobiphenyls | 0.021 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Tetrachlorobiphenyls | 0.017 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |
| Total Polychlorinated biphenyls | 0.052 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 22:23 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 103 | 50-125 | | 4/23/19 22:23 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0862

Date Received: 4/16/2019

**Field Sample #: MW-V18-041619-2**
Sampled: 4/16/2019 13:51

**Sample ID: 19D0862-11**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Dichlorobiphenyls | 0.0092 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Trichlorobiphenyls | 0.021 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Tetrachlorobiphenyls | 0.016 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |
| Total Polychlorinated biphenyls | 0.047 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/23/19 23:00 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 89.9 | 50-125 | | 4/23/19 23:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-02 [MW-515-041619-1] | B228884 | 990 | 1.00 | 04/23/19 |
| 19D0862-03 [MW-515-041619-2] | B228884 | 1000 | 1.00 | 04/23/19 |
| 19D0862-06 [MW-P7-041619-1] | B228884 | 950 | 1.00 | 04/23/19 |
| 19D0862-07 [MW-AH16R-041619-1] | B228884 | 1000 | 1.00 | 04/23/19 |
| 19D0862-09 [MW-N22-041619-1] | B228884 | 980 | 1.00 | 04/23/19 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-01 [MW-AJ19-041619-1] | B228768 | 1030 | 1.00 | 04/22/19 |
| 19D0862-02 [MW-515-041619-1] | B228768 | 1020 | 1.00 | 04/22/19 |
| 19D0862-03 [MW-515-041619-2] | B228768 | 1000 | 1.00 | 04/22/19 |
| 19D0862-04 [MW-AH16D-041619-1] | B228768 | 1020 | 1.00 | 04/22/19 |
| 19D0862-07 [MW-AH16R-041619-1] | B228768 | 1030 | 1.00 | 04/22/19 |
| 19D0862-08 [MW-X17-041619-1] | B228768 | 1020 | 1.00 | 04/22/19 |
| 19D0862-09 [MW-N22-041619-1] | B228768 | 980 | 1.00 | 04/22/19 |
| 19D0862-10 [MW-V18-041619-1] | B228768 | 1010 | 1.00 | 04/22/19 |
| 19D0862-11 [MW-V18-041619-2] | B228768 | 1010 | 1.00 | 04/22/19 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-02 [MW-515-041619-1] | B228682 | 50.0 | 50.0 | 04/19/19 |
| 19D0862-03 [MW-515-041619-2] | B228682 | 50.0 | 50.0 | 04/19/19 |
| 19D0862-06 [MW-P7-041619-1] | B228682 | 50.0 | 50.0 | 04/19/19 |
| 19D0862-07 [MW-AH16R-041619-1] | B228682 | 50.0 | 50.0 | 04/19/19 |
| 19D0862-08 [MW-X17-041619-1] | B228682 | 50.0 | 50.0 | 04/19/19 |
| 19D0862-09 [MW-N22-041619-1] | B228682 | 50.0 | 50.0 | 04/19/19 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-02 [MW-515-041619-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0862-03 [MW-515-041619-2] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0862-06 [MW-P7-041619-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0862-07 [MW-AH16R-041619-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0862-08 [MW-X17-041619-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0862-09 [MW-N22-041619-1] | B228930 | 6.00 | 6.00 | 04/25/19 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-02 [MW-515-041619-1] | B228767 | 1040 | 10.0 | 04/22/19 |
| 19D0862-03 [MW-515-041619-2] | B228767 | 1000 | 10.0 | 04/22/19 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-02 [MW-515-041619-1] | B228644 | 5 | 5.00 | 04/19/19 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-03 [MW-515-041619-2] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0862-05 [VOC Trip Blank] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0862-06 [MW-P7-041619-1] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0862-07 [MW-AH16R-041619-1] | B228644 | 5 | 5.00 | 04/19/19 |
| 19D0862-09 [MW-N22-041619-1] | B228644 | 5 | 5.00 | 04/19/19 |

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0862-02 [MW-515-041619-1] | B228887 | 1000 | 1.00 | 04/23/19 |
| 19D0862-03 [MW-515-041619-2] | B228887 | 990 | 1.00 | 04/23/19 |
| 19D0862-06 [MW-P7-041619-1] | B228887 | 1000 | 1.00 | 04/23/19 |
| 19D0862-07 [MW-AH16R-041619-1] | B228887 | 1000 | 1.00 | 04/23/19 |
| 19D0862-09 [MW-N22-041619-1] | B228887 | 1000 | 1.00 | 04/23/19 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228768 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228768-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.187* | | µg/L | 0.200 | | 93.6 | 50-125 | | | |
| **LCS (B228768-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 83.9 | 40-140 | | | |
| Dichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 85.4 | 40-140 | | | |
| Trichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 79.9 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.7 | 40-140 | | | |
| Pentachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 82.4 | 40-140 | | | |
| Hexachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 81.9 | 40-140 | | | |
| Heptachlorobiphenyls | 0.49 | 0.0030 | µg/L | 0.600 | | 81.8 | 40-140 | | | |
| Octachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 85.7 | 40-140 | | | |
| Nonachlorobiphenyls | 1.0 | 0.0050 | µg/L | 1.00 | | 99.8 | 40-140 | | | |
| Decachlorobiphenyl | 0.98 | 0.0050 | µg/L | 1.00 | | 97.9 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.176* | | µg/L | 0.200 | | 87.8 | 50-125 | | | |
| **LCS Dup (B228768-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 92.5 | 40-140 | 9.78 | 50 | |
| Dichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 88.2 | 40-140 | 3.23 | 50 | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 83.3 | 40-140 | 4.09 | 50 | |
| Tetrachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 87.1 | 40-140 | 3.93 | 50 | |
| Pentachlorobiphenyls | 0.40 | 0.0020 | µg/L | 0.400 | | 101 | 40-140 | 20.4 | 50 | |
| Hexachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.1 | 40-140 | 1.49 | 50 | |
| Heptachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 84.8 | 40-140 | 3.57 | 50 | |
| Octachlorobiphenyls | 0.52 | 0.0030 | µg/L | 0.600 | | 86.9 | 40-140 | 1.48 | 50 | |
| Nonachlorobiphenyls | 0.90 | 0.0050 | µg/L | 1.00 | | 90.3 | 40-140 | 10.0 | 50 | |
| Decachlorobiphenyl | 0.99 | 0.0050 | µg/L | 1.00 | | 99.0 | 40-140 | 1.07 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.200* | | µg/L | 0.200 | | 100 | 50-125 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228644-BLK1)** | | | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | V-34 |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228644-BLK1)** | | | | Prepared: 04/19/19 Analyzed: 04/20/19 | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.2* | | µg/L | 25.0 | | 101 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.2* | | µg/L | 25.0 | | 101 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.6* | | µg/L | 25.0 | | 102 | 70-130 | | | |
| **LCS (B228644-BS1)** | | | | Prepared & Analyzed: 04/19/19 | | | | | | |
| Acetone | 97.2 | 10 | µg/L | 100 | | 97.2 | 70-130 | | | V-36 |
| Acrylonitrile | 9.73 | 2.0 | µg/L | 10.0 | | 97.3 | 70-130 | | | |
| Benzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Bromobenzene | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Bromodichloromethane | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Bromoform | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Bromomethane | 9.30 | 1.0 | µg/L | 10.0 | | 93.0 | 70-130 | | | V-34 |
| 2-Butanone (MEK) | 100 | 5.0 | µg/L | 100 | | 100 | 70-130 | | | |
| n-Butylbenzene | 9.68 | 1.0 | µg/L | 10.0 | | 96.8 | 70-130 | | | |
| sec-Butylbenzene | 10.0 | 1.0 | µg/L | 10.0 | | 100 | 70-130 | | | |
| tert-Butylbenzene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Carbon Disulfide | 103 | 5.0 | µg/L | 100 | | 103 | 70-130 | | | V-36 |
| Carbon Tetrachloride | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chlorobenzene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chlorodibromomethane | 11.0 | 0.50 | µg/L | 10.0 | | 110 | 70-130 | | | |
| Chloroethane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Chloroform | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Chloromethane | 9.18 | 0.60 | µg/L | 10.0 | | 91.8 | 70-130 | | | |
| 2-Chlorotoluene | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| 4-Chlorotoluene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Dibromomethane | 11.2 | 0.50 | µg/L | 10.0 | | 112 | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 1,4-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 8.90 | 2.0 | µg/L | 10.0 | | 89.0 | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,1-Dichloroethane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2-Dichloroethane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,1-Dichloroethylene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228644 - SW-846 5030B** | | | | | | | | | | |
| **LCS (B228644-BS1)** | | | | Prepared & Analyzed: 04/19/19 | | | | | | |
| cis-1,2-Dichloroethylene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| trans-1,2-Dichloroethylene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,2-Dichloropropane | 10.9 | 0.50 | µg/L | 10.0 | | 109 | 70-130 | | | |
| 1,3-Dichloropropane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 2,2-Dichloropropane | 7.97 | 0.50 | µg/L | 10.0 | | 79.7 | 70-130 | | | |
| 1,1-Dichloropropene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| cis-1,3-Dichloropropene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| trans-1,3-Dichloropropene | 9.94 | 0.50 | µg/L | 10.0 | | 99.4 | 70-130 | | | |
| Ethylbenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Hexachlorobutadiene | 10.8 | 0.60 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 2-Hexanone (MBK) | 100 | 5.0 | µg/L | 100 | | 100 | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| Methylene Chloride | 10.3 | 5.0 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 102 | 5.0 | µg/L | 100 | | 102 | 70-130 | | | |
| Naphthalene | 10.4 | 2.0 | µg/L | 10.0 | | 104 | 70-130 | | | |
| n-Propylbenzene | 10.4 | 1.0 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Styrene | 10.6 | 1.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 9.14 | 0.50 | µg/L | 10.0 | | 91.4 | 70-130 | | | |
| Tetrachloroethylene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Tetrahydrofuran | 9.47 | 10 | µg/L | 10.0 | | 94.7 | 70-130 | | | |
| Toluene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 10.7 | 1.0 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| 1,1,1-Trichloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Trichloroethylene | 11.3 | 1.0 | µg/L | 10.0 | | 113 | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 10.8 | 2.0 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 1,2,3-Trichloropropane | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 9.96 | 0.50 | µg/L | 10.0 | | 99.6 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.74 | 0.50 | µg/L | 10.0 | | 97.4 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Vinyl Chloride | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| m+p Xylene | 20.4 | 2.0 | µg/L | 20.0 | | 102 | 70-130 | | | |
| o-Xylene | 10.3 | 1.0 | µg/L | 10.0 | | 103 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *24.8* | | µg/L | 25.0 | | 99.0 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.2* | | µg/L | 25.0 | | 101 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.1* | | µg/L | 25.0 | | 100 | 70-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228887 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228887-BLK1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *111* | | µg/L | 100 | | 111 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *72.5* | | µg/L | 100 | | 72.5 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *85.0* | | µg/L | 100 | | 85.0 | 30-130 | | | |
| **LCS (B228887-BS1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | |
| Acenaphthene (SIM) | 38.2 | 6.0 | µg/L | 50.0 | | 76.3 | 40-140 | | | |
| Acenaphthylene (SIM) | 38.9 | 4.0 | µg/L | 50.0 | | 77.8 | 40-140 | | | |
| Anthracene (SIM) | 40.6 | 4.0 | µg/L | 50.0 | | 81.2 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 37.9 | 1.0 | µg/L | 50.0 | | 75.8 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 43.2 | 2.0 | µg/L | 50.0 | | 86.4 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 41.3 | 1.0 | µg/L | 50.0 | | 82.6 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 41.1 | 10 | µg/L | 50.0 | | 82.1 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 42.0 | 4.0 | µg/L | 50.0 | | 83.9 | 40-140 | | | |
| Chrysene (SIM) | 38.7 | 4.0 | µg/L | 50.0 | | 77.4 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 42.3 | 2.0 | µg/L | 50.0 | | 84.5 | 40-140 | | | |
| Fluoranthene (SIM) | 39.6 | 10 | µg/L | 50.0 | | 79.2 | 40-140 | | | |
| Fluorene (SIM) | 41.1 | 20 | µg/L | 50.0 | | 82.2 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 42.7 | 2.0 | µg/L | 50.0 | | 85.4 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 39.8 | 20 | µg/L | 50.0 | | 79.6 | 40-140 | | | |
| Naphthalene (SIM) | 39.1 | 20 | µg/L | 50.0 | | 78.2 | 40-140 | | | |
| Phenanthrene (SIM) | 39.1 | 1.0 | µg/L | 50.0 | | 78.2 | 40-140 | | | |
| Pyrene (SIM) | 36.6 | 20 | µg/L | 50.0 | | 73.1 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *84.2* | | µg/L | 100 | | 84.2 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *60.0* | | µg/L | 100 | | 60.0 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *62.9* | | µg/L | 100 | | 62.9 | 30-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228887 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B228887-BSD1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | |
| Acenaphthene (SIM) | 38.6 | 6.0 | µg/L | 50.0 | | 77.2 | 40-140 | 1.15 | 20 | |
| Acenaphthylene (SIM) | 39.7 | 4.0 | µg/L | 50.0 | | 79.3 | 40-140 | 1.99 | 20 | |
| Anthracene (SIM) | 41.1 | 4.0 | µg/L | 50.0 | | 82.2 | 40-140 | 1.22 | 20 | |
| Benzo(a)anthracene (SIM) | 38.0 | 1.0 | µg/L | 50.0 | | 76.0 | 40-140 | 0.264 | 20 | |
| Benzo(a)pyrene (SIM) | 43.0 | 2.0 | µg/L | 50.0 | | 86.0 | 40-140 | 0.371 | 20 | |
| Benzo(b)fluoranthene (SIM) | 41.4 | 1.0 | µg/L | 50.0 | | 82.7 | 40-140 | 0.194 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 40.7 | 10 | µg/L | 50.0 | | 81.4 | 40-140 | 0.881 | 20 | |
| Benzo(k)fluoranthene (SIM) | 42.4 | 4.0 | µg/L | 50.0 | | 84.7 | 40-140 | 0.949 | 20 | |
| Chrysene (SIM) | 38.9 | 4.0 | µg/L | 50.0 | | 77.7 | 40-140 | 0.413 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 41.9 | 2.0 | µg/L | 50.0 | | 83.7 | 40-140 | 0.951 | 20 | |
| Fluoranthene (SIM) | 39.4 | 10 | µg/L | 50.0 | | 78.9 | 40-140 | 0.455 | 20 | |
| Fluorene (SIM) | 40.8 | 20 | µg/L | 50.0 | | 81.6 | 40-140 | 0.733 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 42.2 | 2.0 | µg/L | 50.0 | | 84.5 | 40-140 | 1.04 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 39.6 | 20 | µg/L | 50.0 | | 79.2 | 40-140 | 0.504 | 20 | |
| Naphthalene (SIM) | 39.2 | 20 | µg/L | 50.0 | | 78.4 | 40-140 | 0.204 | 20 | |
| Phenanthrene (SIM) | 39.0 | 1.0 | µg/L | 50.0 | | 78.1 | 40-140 | 0.205 | 20 | |
| Pyrene (SIM) | 36.7 | 20 | µg/L | 50.0 | | 73.4 | 40-140 | 0.437 | 20 | |
| Surrogate: Nitrobenzene-d5 | *84.0* | | µg/L | 100 | | 84.0 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *62.1* | | µg/L | 100 | | 62.1 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *62.2* | | µg/L | 100 | | 62.2 | 30-130 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228767-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| alpha-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| Alachlor | ND | 0.20 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.20 | µg/L | | | | | | | |
| Aldrin | ND | 0.050 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.050 | µg/L | | | | | | | R-05 |
| alpha-BHC [2C] | ND | 0.050 | µg/L | | | | | | | R-05 |
| beta-BHC | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.030 | µg/L | | | | | | | R-05 |
| gamma-BHC (Lindane) [2C] | ND | 0.030 | µg/L | | | | | | | R-05 |
| Chlordane | ND | 0.20 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.20 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.040 | µg/L | | | | | | | |
| Dieldrin | ND | 0.0020 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.0020 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin | ND | 0.080 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.080 | µg/L | | | | | | | |
| Heptachlor | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.050 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.50 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.50 | µg/L | | | | | | | |
| Toxaphene | ND | 1.0 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.84* | | µg/L | 2.00 | | 92.0 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.08* | | µg/L | 2.00 | | 104 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.67* | | µg/L | 2.00 | | 83.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.69* | | µg/L | 2.00 | | 84.5 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B228767-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| alpha-Chlordane | 0.92 | 0.050 | µg/L | 1.00 | | 92.3 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.95 | 0.050 | µg/L | 1.00 | | 94.6 | 0-200 | | | |
| gamma-Chlordane | 0.91 | 0.050 | µg/L | 1.00 | | 91.0 | 0-200 | | | |
| gamma-Chlordane [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.1 | 0-200 | | | |
| Alachlor | 0.89 | 0.20 | µg/L | 1.00 | | 88.7 | 40-140 | | | |
| Alachlor [2C] | 0.84 | 0.20 | µg/L | 1.00 | | 84.2 | 40-140 | | | |
| Aldrin | 0.86 | 0.050 | µg/L | 1.00 | | 86.5 | 40-140 | | | |
| Aldrin [2C] | 0.87 | 0.050 | µg/L | 1.00 | | 87.0 | 40-140 | | | |
| alpha-BHC | 0.61 | 0.050 | µg/L | 1.00 | | 60.9 | 40-140 | | | R-05 |
| alpha-BHC [2C] | 0.63 | 0.050 | µg/L | 1.00 | | 63.3 | 40-140 | | | R-05 |
| beta-BHC | 0.84 | 0.050 | µg/L | 1.00 | | 83.7 | 40-140 | | | |
| beta-BHC [2C] | 0.88 | 0.050 | µg/L | 1.00 | | 87.9 | 40-140 | | | |
| delta-BHC | 0.81 | 0.050 | µg/L | 1.00 | | 81.1 | 40-140 | | | |
| delta-BHC [2C] | 0.81 | 0.050 | µg/L | 1.00 | | 81.3 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.67 | 0.030 | µg/L | 1.00 | | 67.2 | 40-140 | | | R-05 |
| gamma-BHC (Lindane) [2C] | 0.69 | 0.030 | µg/L | 1.00 | | 69.1 | 40-140 | | | R-05 |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDT | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | | | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Dieldrin | 0.92 | 0.0020 | µg/L | 1.00 | | 92.0 | 40-140 | | | |
| Dieldrin [2C] | 0.90 | 0.0020 | µg/L | 1.00 | | 90.0 | 40-140 | | | |
| Endosulfan I | 0.89 | 0.050 | µg/L | 1.00 | | 89.2 | 40-140 | | | |
| Endosulfan I [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 91.7 | 40-140 | | | |
| Endosulfan II | 0.97 | 0.080 | µg/L | 1.00 | | 96.9 | 40-140 | | | |
| Endosulfan II [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 98.6 | 40-140 | | | |
| Endosulfan Sulfate | 0.99 | 0.080 | µg/L | 1.00 | | 98.8 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.3 | 40-140 | | | |
| Endrin | 0.94 | 0.080 | µg/L | 1.00 | | 93.8 | 40-140 | | | |
| Endrin [2C] | 0.95 | 0.080 | µg/L | 1.00 | | 94.7 | 40-140 | | | |
| Endrin Aldehyde | 0.93 | 0.080 | µg/L | 1.00 | | 93.3 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.97 | 0.080 | µg/L | 1.00 | | 96.5 | 40-140 | | | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 102 | 40-140 | | | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | | | |
| Heptachlor | 0.70 | 0.050 | µg/L | 1.00 | | 70.3 | 40-140 | | | |
| Heptachlor [2C] | 0.73 | 0.050 | µg/L | 1.00 | | 72.9 | 40-140 | | | |
| Heptachlor Epoxide | 0.86 | 0.050 | µg/L | 1.00 | | 86.1 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 86.1 | 40-140 | | | |
| Hexachlorobenzene | 0.90 | 0.050 | µg/L | 1.00 | | 89.6 | 40-140 | | | |
| Hexachlorobenzene [2C] | 0.98 | 0.050 | µg/L | 1.00 | | 98.2 | 40-140 | | | V-06 |
| Methoxychlor | 1.1 | 0.50 | µg/L | 1.00 | | 105 | 40-140 | | | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | | 107 | 40-140 | | | |
| Surrogate: Decachlorobiphenyl | *1.84* | | µg/L | 2.00 | | 92.1 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.08* | | µg/L | 2.00 | | 104 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.38* | | µg/L | 2.00 | | 69.0 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.40* | | µg/L | 2.00 | | 70.0 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228767 - SW-846 3510C** | | | | | | | | | | | |
| **LCS Dup (B228767-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | | |
| alpha-Chlordane | 0.95 | 0.050 | µg/L | 1.00 | | 95.1 | 0-200 | 3.00 | | | |
| alpha-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.1 | 0-200 | 2.56 | | | |
| gamma-Chlordane | 0.94 | 0.050 | µg/L | 1.00 | | 94.4 | 0-200 | 3.61 | | | |
| gamma-Chlordane [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 97.3 | 0-200 | 3.32 | | | |
| Alachlor | 0.88 | 0.20 | µg/L | 1.00 | | 88.3 | 40-140 | 0.445 | | 20 | |
| Alachlor [2C] | 0.88 | 0.20 | µg/L | 1.00 | | 88.4 | 40-140 | 4.87 | | 20 | |
| Aldrin | 0.94 | 0.050 | µg/L | 1.00 | | 93.7 | 40-140 | 8.02 | | 20 | |
| Aldrin [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 93.7 | 40-140 | 7.37 | | 20 | |
| alpha-BHC | 0.81 | 0.050 | µg/L | 1.00 | | 81.4 | 40-140 | **28.8** | * | 20 | R-05 |
| alpha-BHC [2C] | 0.83 | 0.050 | µg/L | 1.00 | | 83.1 | 40-140 | **27.0** | * | 20 | R-05 |
| beta-BHC | 0.91 | 0.050 | µg/L | 1.00 | | 91.3 | 40-140 | 8.61 | | 20 | |
| beta-BHC [2C] | 0.94 | 0.050 | µg/L | 1.00 | | 94.4 | 40-140 | 7.18 | | 20 | |
| delta-BHC | 0.90 | 0.050 | µg/L | 1.00 | | 90.3 | 40-140 | 10.7 | | 20 | |
| delta-BHC [2C] | 0.91 | 0.050 | µg/L | 1.00 | | 91.2 | 40-140 | 11.5 | | 20 | |
| gamma-BHC (Lindane) | 0.84 | 0.030 | µg/L | 1.00 | | 84.4 | 40-140 | **22.7** | * | 20 | R-05 |
| gamma-BHC (Lindane) [2C] | 0.86 | 0.030 | µg/L | 1.00 | | 85.7 | 40-140 | **21.5** | * | 20 | R-05 |
| 4,4'-DDD | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 0.242 | | 20 | |
| 4,4'-DDD [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 0.153 | | 20 | |
| 4,4'-DDE | 1.0 | 0.040 | µg/L | 1.00 | | 104 | 40-140 | 0.967 | | 20 | |
| 4,4'-DDE [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 102 | 40-140 | 0.857 | | 20 | |
| 4,4'-DDT | 1.0 | 0.040 | µg/L | 1.00 | | 101 | 40-140 | 0.342 | | 20 | |
| 4,4'-DDT [2C] | 1.0 | 0.040 | µg/L | 1.00 | | 103 | 40-140 | 0.368 | | 20 | |
| Dieldrin | 0.94 | 0.0020 | µg/L | 1.00 | | 93.6 | 40-140 | 1.72 | | 20 | |
| Dieldrin [2C] | 0.91 | 0.0020 | µg/L | 1.00 | | 91.4 | 40-140 | 1.64 | | 20 | |
| Endosulfan I | 0.93 | 0.050 | µg/L | 1.00 | | 92.9 | 40-140 | 4.15 | | 20 | |
| Endosulfan I [2C] | 0.96 | 0.050 | µg/L | 1.00 | | 95.8 | 40-140 | 4.41 | | 20 | |
| Endosulfan II | 0.97 | 0.080 | µg/L | 1.00 | | 97.1 | 40-140 | 0.279 | | 20 | |
| Endosulfan II [2C] | 0.99 | 0.080 | µg/L | 1.00 | | 99.4 | 40-140 | 0.815 | | 20 | |
| Endosulfan Sulfate | 0.99 | 0.080 | µg/L | 1.00 | | 98.9 | 40-140 | 0.102 | | 20 | |
| Endosulfan Sulfate [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 98.2 | 40-140 | 0.0560 | | 20 | |
| Endrin | 0.97 | 0.080 | µg/L | 1.00 | | 96.7 | 40-140 | 3.06 | | 20 | |
| Endrin [2C] | 0.98 | 0.080 | µg/L | 1.00 | | 97.7 | 40-140 | 3.09 | | 20 | |
| Endrin Aldehyde | 0.91 | 0.080 | µg/L | 1.00 | | 91.0 | 40-140 | 2.48 | | 20 | |
| Endrin Aldehyde [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 94.2 | 40-140 | 2.45 | | 20 | |
| Endrin Ketone | 1.0 | 0.080 | µg/L | 1.00 | | 101 | 40-140 | 0.519 | | 20 | |
| Endrin Ketone [2C] | 1.0 | 0.080 | µg/L | 1.00 | | 103 | 40-140 | 0.215 | | 20 | |
| Heptachlor | 0.86 | 0.050 | µg/L | 1.00 | | 85.9 | 40-140 | 19.9 | | 20 | |
| Heptachlor [2C] | 0.88 | 0.050 | µg/L | 1.00 | | 87.7 | 40-140 | 18.5 | | 20 | |
| Heptachlor Epoxide | 0.92 | 0.050 | µg/L | 1.00 | | 91.5 | 40-140 | 6.13 | | 20 | |
| Heptachlor Epoxide [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 91.8 | 40-140 | 6.40 | | 20 | |
| Hexachlorobenzene | 0.98 | 0.050 | µg/L | 1.00 | | 98.2 | 40-140 | 9.11 | | 20 | |
| Hexachlorobenzene [2C] | 1.1 | 0.050 | µg/L | 1.00 | | 106 | 40-140 | 8.01 | | 20 | V-06 |
| Methoxychlor | 1.0 | 0.50 | µg/L | 1.00 | | 104 | 40-140 | 1.03 | | 20 | |
| Methoxychlor [2C] | 1.1 | 0.50 | µg/L | 1.00 | | 107 | 40-140 | 0.355 | | 20 | |
| Surrogate: Decachlorobiphenyl | *1.83* | | µg/L | 2.00 | | 91.3 | 30-150 | | | | |
| Surrogate: Decachlorobiphenyl [2C] | *2.07* | | µg/L | 2.00 | | 103 | 30-150 | | | | |
| Surrogate: Tetrachloro-m-xylene | *1.60* | | µg/L | 2.00 | | 79.8 | 30-150 | | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.61* | | µg/L | 2.00 | | 80.6 | 30-150 | | | | |

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**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228884 - SW-846 3510C** | | | | | | | | | | | |
| **Blank (B228884-BLK1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| CT ETPH | ND | 0.15 | mg/L | | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0754* | | mg/L | 0.100 | | 75.4 | | 50-150 | | | |
| **LCS (B228884-BS1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| CT ETPH | 0.638 | 0.15 | mg/L | 1.00 | | 63.8 | | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0788* | | mg/L | 0.100 | | 78.8 | | 50-150 | | | |
| **LCS Dup (B228884-BSD1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| **CT ETPH** | 0.568 | 0.15 | mg/L | 1.00 | | **56.8** | * | 60-120 | 11.6 | 30 | L-07 |
| Surrogate: 2-Fluorobiphenyl | *0.0666* | | mg/L | 0.100 | | 66.6 | | 50-150 | | | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228682 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B228682-BLK1)** | | | | Prepared: 04/19/19 Analyzed: 04/22/19 | | | | | | |
| Antimony | ND | 1.0 | µg/L | | | | | | | |
| Arsenic | ND | 0.40 | µg/L | | | | | | | |
| Barium | ND | 10 | µg/L | | | | | | | |
| Beryllium | ND | 0.40 | µg/L | | | | | | | |
| Cadmium | ND | 0.50 | µg/L | | | | | | | |
| Chromium | ND | 1.0 | µg/L | | | | | | | |
| Copper | ND | 5.0 | µg/L | | | | | | | |
| Lead | ND | 1.0 | µg/L | | | | | | | |
| Nickel | ND | 5.0 | µg/L | | | | | | | |
| Selenium | ND | 5.0 | µg/L | | | | | | | |
| Silver | ND | 0.50 | µg/L | | | | | | | |
| Thallium | ND | 0.20 | µg/L | | | | | | | |
| Vanadium | ND | 5.0 | µg/L | | | | | | | |
| Zinc | ND | 10 | µg/L | | | | | | | |
| **LCS (B228682-BS1)** | | | | Prepared: 04/19/19 Analyzed: 04/22/19 | | | | | | |
| Antimony | 519 | 10 | µg/L | 500 | | 104 | 80-120 | | | |
| Arsenic | 512 | 4.0 | µg/L | 500 | | 102 | 80-120 | | | |
| Barium | 510 | 100 | µg/L | 500 | | 102 | 80-120 | | | |
| Beryllium | 517 | 4.0 | µg/L | 500 | | 103 | 80-120 | | | |
| Cadmium | 508 | 5.0 | µg/L | 500 | | 102 | 80-120 | | | |
| Chromium | 507 | 10 | µg/L | 500 | | 101 | 80-120 | | | |
| Copper | 1010 | 50 | µg/L | 1000 | | 101 | 80-120 | | | |
| Lead | 522 | 10 | µg/L | 500 | | 104 | 80-120 | | | |
| Nickel | 510 | 50 | µg/L | 500 | | 102 | 80-120 | | | |
| Selenium | 496 | 50 | µg/L | 500 | | 99.2 | 80-120 | | | |
| Silver | 510 | 5.0 | µg/L | 500 | | 102 | 80-120 | | | |
| Thallium | 499 | 2.0 | µg/L | 500 | | 99.8 | 80-120 | | | |
| Vanadium | 515 | 50 | µg/L | 500 | | 103 | 80-120 | | | |
| Zinc | 1000 | 100 | µg/L | 1000 | | 100 | 80-120 | | | |
| **LCS Dup (B228682-BSD1)** | | | | Prepared: 04/19/19 Analyzed: 04/22/19 | | | | | | |
| Antimony | 517 | 10 | µg/L | 500 | | 103 | 80-120 | 0.491 | 20 | |
| Arsenic | 519 | 4.0 | µg/L | 500 | | 104 | 80-120 | 1.34 | 20 | |
| Barium | 508 | 100 | µg/L | 500 | | 102 | 80-120 | 0.328 | 20 | |
| Beryllium | 517 | 4.0 | µg/L | 500 | | 103 | 80-120 | 0.00273 | 20 | |
| Cadmium | 507 | 5.0 | µg/L | 500 | | 101 | 80-120 | 0.280 | 20 | |
| Chromium | 521 | 10 | µg/L | 500 | | 104 | 80-120 | 2.67 | 20 | |
| Copper | 1020 | 50 | µg/L | 1000 | | 102 | 80-120 | 0.977 | 20 | |
| Lead | 520 | 10 | µg/L | 500 | | 104 | 80-120 | 0.432 | 20 | |
| Nickel | 515 | 50 | µg/L | 500 | | 103 | 80-120 | 1.01 | 20 | |
| Selenium | 506 | 50 | µg/L | 500 | | 101 | 80-120 | 2.03 | 20 | |
| Silver | 508 | 5.0 | µg/L | 500 | | 102 | 80-120 | 0.510 | 20 | |
| Thallium | 498 | 2.0 | µg/L | 500 | | 99.7 | 80-120 | 0.127 | 20 | |
| Vanadium | 517 | 50 | µg/L | 500 | | 103 | 80-120 | 0.314 | 20 | |
| Zinc | 1010 | 100 | µg/L | 1000 | | 101 | 80-120 | 0.850 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228930 - SW-846 7470A Prep** | | | | | | | | | | |
| **Blank (B228930-BLK1)** | | | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | |
| **LCS (B228930-BS1)** | | | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | 0.00391 | 0.00010 | mg/L | 0.00400 | | 97.8 | 80-120 | | | |
| **LCS Dup (B228930-BSD1)** | | | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | 0.00411 | 0.00010 | mg/L | 0.00400 | | 103 | 80-120 | 5.01 | 20 | |
| **Duplicate (B228930-DUP1)** | | **Source: 19D0862-09** | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | ND | | | NC | 20 | |
| **Matrix Spike (B228930-MS1)** | | **Source: 19D0862-09** | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | 0.00391 | 0.00010 | mg/L | 0.00400 | ND | 97.7 | 75-125 | | | |

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BREAKDOWN REPORT

**Lab Sample ID:** **S035027-PEM1** **Analyzed:** **04/23/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 3.79 |
| Endrin [1] | 3.09 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 4.84 |
| Endrin [2] | 3.72 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035027-PEM2** **Analyzed:** **04/23/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 4.44 |
| Endrin [1] | 4.33 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 5.59 |
| Endrin [2] | 4.65 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS**

Lab Sample ID: B228767-BS1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.923 | 6.894 | 6.954 | 1.0 | |
| | 2 | 6.838 | 6.809 | 6.869 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.500 | 6.470 | 6.530 | 1.0 | |
| | 2 | 6.432 | 6.404 | 6.464 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.130 | 7.100 | 7.160 | 1.0 | |
| | 2 | 7.065 | 7.037 | 7.097 | 1.0 | 0.0 |
| Alachlor | 1 | 5.965 | 5.935 | 5.995 | 0.89 | |
| | 2 | 5.683 | 5.653 | 5.713 | 0.84 | 5.8 |
| Aldrin | 1 | 5.864 | 5.833 | 5.893 | 0.86 | |
| | 2 | 5.725 | 5.695 | 5.755 | 0.87 | 0.0 |
| alpha-BHC | 1 | 5.206 | 5.176 | 5.236 | 0.61 | |
| | 2 | 5.104 | 5.074 | 5.134 | 0.63 | 3.2 |
| alpha-Chlordane | 1 | 6.437 | 6.407 | 6.467 | 0.92 | |
| | 2 | 6.302 | 6.273 | 6.333 | 0.95 | 3.2 |
| beta-BHC | 1 | 5.443 | 5.413 | 5.473 | 0.84 | |
| | 2 | 5.345 | 5.315 | 5.375 | 0.88 | 4.7 |
| delta-BHC | 1 | 5.548 | 5.519 | 5.579 | 0.81 | |
| | 2 | 5.506 | 5.476 | 5.536 | 0.81 | 0.0 |
| Dieldrin | 1 | 6.696 | 6.666 | 6.726 | 0.92 | |
| | 2 | 6.518 | 6.489 | 6.549 | 0.90 | 2.2 |
| Endosulfan I | 1 | 6.527 | 6.497 | 6.557 | 0.89 | |
| | 2 | 6.333 | 6.303 | 6.363 | 0.92 | 3.3 |
| Endosulfan II | 1 | 7.023 | 6.993 | 7.053 | 0.97 | |
| | 2 | 6.879 | 6.850 | 6.910 | 0.99 | 2.0 |
| Endosulfan Sulfate | 1 | 7.665 | 7.635 | 7.695 | 0.99 | |
| | 2 | 7.337 | 7.309 | 7.369 | 0.98 | 1.0 |
| Endrin | 1 | 6.859 | 6.829 | 6.889 | 0.94 | |
| | 2 | 6.724 | 6.695 | 6.755 | 0.95 | 1.1 |
| Endrin Aldehyde | 1 | 7.334 | 7.304 | 7.364 | 0.93 | |
| | 2 | 7.127 | 7.098 | 7.158 | 0.97 | 4.2 |
| Endrin Ketone | 1 | 7.875 | 7.845 | 7.905 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B228767-BS1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.729 | 7.699 | 7.759 | 1.0 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.390 | 5.360 | 5.420 | 0.67 | |
| | 2 | 5.293 | 5.263 | 5.323 | 0.69 | 2.9 |
| gamma-Chlordane | 1 | 6.347 | 6.317 | 6.377 | 0.91 | |
| | 2 | 6.206 | 6.176 | 6.236 | 0.94 | 3.2 |
| Heptachlor | 1 | 5.676 | 5.646 | 5.706 | 0.70 | |
| | 2 | 5.538 | 5.509 | 5.569 | 0.73 | 4.2 |
| Heptachlor Epoxide | 1 | 6.261 | 6.231 | 6.291 | 0.86 | |
| | 2 | 6.080 | 6.051 | 6.111 | 0.86 | 0.0 |
| Hexachlorobenzene | 1 | 5.109 | 5.078 | 5.138 | 0.90 | |
| | 2 | 5.030 | 4.999 | 5.059 | 0.98 | 8.5 |
| Methoxychlor | 1 | 7.513 | 7.483 | 7.543 | 1.1 | |
| | 2 | 7.605 | 7.575 | 7.635 | 1.1 | 0.0 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B228767-BSD1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.924 | 6.894 | 6.954 | 1.0 | |
| | 2 | 6.839 | 6.809 | 6.869 | 1.0 | 0.0 |
| 4,4'-DDE | 1 | 6.500 | 6.470 | 6.530 | 1.0 | |
| | 2 | 6.434 | 6.404 | 6.464 | 1.0 | 0.0 |
| 4,4'-DDT | 1 | 7.130 | 7.100 | 7.160 | 1.0 | |
| | 2 | 7.067 | 7.037 | 7.097 | 1.0 | 0.0 |
| Alachlor | 1 | 5.964 | 5.935 | 5.995 | 0.88 | |
| | 2 | 5.683 | 5.653 | 5.713 | 0.88 | 0.0 |
| Aldrin | 1 | 5.864 | 5.833 | 5.893 | 0.94 | |
| | 2 | 5.726 | 5.695 | 5.755 | 0.94 | 0.0 |
| alpha-BHC | 1 | 5.206 | 5.176 | 5.236 | 0.81 | |
| | 2 | 5.104 | 5.074 | 5.134 | 0.83 | 2.4 |
| alpha-Chlordane | 1 | 6.438 | 6.407 | 6.467 | 0.95 | |
| | 2 | 6.303 | 6.273 | 6.333 | 0.97 | 2.1 |
| beta-BHC | 1 | 5.443 | 5.413 | 5.473 | 0.91 | |
| | 2 | 5.345 | 5.315 | 5.375 | 0.94 | 3.2 |
| delta-BHC | 1 | 5.549 | 5.519 | 5.579 | 0.90 | |
| | 2 | 5.506 | 5.476 | 5.536 | 0.91 | 1.1 |
| Dieldrin | 1 | 6.696 | 6.666 | 6.726 | 0.94 | |
| | 2 | 6.519 | 6.489 | 6.549 | 0.91 | 3.2 |
| Endosulfan I | 1 | 6.528 | 6.497 | 6.557 | 0.93 | |
| | 2 | 6.334 | 6.303 | 6.363 | 0.96 | 3.2 |
| Endosulfan II | 1 | 7.023 | 6.993 | 7.053 | 0.97 | |
| | 2 | 6.880 | 6.850 | 6.910 | 0.99 | 2.0 |
| Endosulfan Sulfate | 1 | 7.665 | 7.635 | 7.695 | 0.99 | |
| | 2 | 7.339 | 7.309 | 7.369 | 0.98 | 1.0 |
| Endrin | 1 | 6.859 | 6.829 | 6.889 | 0.97 | |
| | 2 | 6.726 | 6.695 | 6.755 | 0.98 | 1.0 |
| Endrin Aldehyde | 1 | 7.333 | 7.304 | 7.364 | 0.91 | |
| | 2 | 7.128 | 7.098 | 7.158 | 0.94 | 3.2 |
| Endrin Ketone | 1 | 7.875 | 7.845 | 7.905 | 1.0 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B228767-BSD1 Date(s) Analyzed: 04/23/2019 04/23/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.730 | 7.699 | 7.759 | 1.0 | 0.0 |
| gamma-BHC (Lindane) | 1 | 5.389 | 5.360 | 5.420 | 0.84 | |
| | 2 | 5.294 | 5.263 | 5.323 | 0.86 | 2.4 |
| gamma-Chlordane | 1 | 6.346 | 6.317 | 6.377 | 0.94 | |
| | 2 | 6.207 | 6.176 | 6.236 | 0.97 | 3.1 |
| Heptachlor | 1 | 5.676 | 5.646 | 5.706 | 0.86 | |
| | 2 | 5.539 | 5.509 | 5.569 | 0.88 | 2.3 |
| Heptachlor Epoxide | 1 | 6.261 | 6.231 | 6.291 | 0.92 | |
| | 2 | 6.081 | 6.051 | 6.111 | 0.92 | 0.0 |
| Hexachlorobenzene | 1 | 5.109 | 5.078 | 5.138 | 0.98 | |
| | 2 | 5.030 | 4.999 | 5.059 | 1.1 | 11.5 |
| Methoxychlor | 1 | 7.513 | 7.483 | 7.543 | 1.0 | |
| | 2 | 7.605 | 7.575 | 7.635 | 1.1 | 9.5 |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| DL-03 | Elevated reporting limit due to matrix. |
| L-07 | Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria. |
| R-05 | Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound. |
| V-06 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound. |
| V-34 | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Soil*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Soil*** | |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |
| 1,1-Dichloroethane | CT,NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2020 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2020 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

AUB

**con-test®** ANALYTICAL LABORATORY

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www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

Rev. 04.05.12



19D08862

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticides | | | | | | # of Containers |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 16 | ~~8~~ 6 (RB) | 10 | 10 | 17 | 4 | | | | | | # of Containers |
| | | | | | | | | I | N | I | I | H | I | | | | | | ** Preservation |
| | | | | | | | | A | P | A | A | V | A | | | | | | ***Container Code |
| 01 | MW-AJ19-041619-1 | 4/16/19 | 0805 | | X | GW | U | X | | | | | | | | | | | |
| 02 | MW-S15-041619-1 | 4/16/19 | 0835 | | X | GW | U | X | X | X | X | X | X | | | | | | |
| 03 | MW-S15-041619-2 (RB) | 4/16/19 | 0840 | | X | GW | U | X | X | X | X | X | X | | | | | | |
| 04 | MW-AH16D-041619-1 | 4/16/19 | 0855 | | X | GW | U | X | | | | | | | | | | | |
| 05 | VOC Trip Blank | 4/16/19 | LAB | | | | | | | | | X | | | | | | | |
| 06 | MW-P7-041619-1 | 4/16/19 | 1100 | | X | GW | U | | X | X | X | X | | | | | | | |
| 07 | MW-AH16R-041619-1 | 4/16/19 | 1055 | | X | GW | U | X | X | X | X | X | | | | | | | |
| 08 | MW-X17-041619-1 | 4/16/19 | 1240 | | X | GW | U | X | X | | | | | | | | | | |
| 09 | MW-N22-041619-1 | 4/16/19 | 1325 | | X | GW | U | X | X | X | X | X | | | | | | | |
| 10 | MW-V18-041619-1 | 4/16/19 | 1350 | | X | GW | U | X | | | | | | | | | | | |

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

| | | |
|---|---|---|
| Relinquished by: (signature) | 4/16/19 | Date/Time: 1454 |
| Received by: (signature) | 4/16/19 | Date/Time: 1422 |
| Relinquished by: (signature) | 4-19-19 | Date/Time: 1915 |
| Received by: (signature) 2.7, 4.3, 5.1, 4.9 | 4/16/19 | Date/Time: 1916 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____

**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

con-test® ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028



Rev 04.05.12

19D0862

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Project Proposal Provided? (for billing purposes)
O yes _____ proposal date

Telephone:
Project # 60432356
Client PO#

DATA DELIVERY (check all that apply)
O FAX ◉ EMAIL O WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF O EXCEL O GIS
◉ OTHER EDD - Equis
O "Enhanced Data Package"

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 2 | | | | | | | | | | |
| | | I | N | I | I | H | | | | | | |
| | | A | P | A | A | V | | | | | | |
| 11 | MW-V18-041619-2 | 4/16/19 | 1351 | | X | G W | U | X | | | | |

Dissolved Metals
O Field Filtered
O Lab to Filter

***Cont. Code:
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

| Relinquished by: (signature) | Date/Time: |
|---|---|
| [signature] 4/16/19 | 1454 |
| Received by: (signature) AB | Date/Time: 4-16-19 1959 |
| Relinquished by: (signature) AB | Date/Time: 4-16-19 1959 |
| Received by: (signature) 27,7.3.5.1,4 [signature] 4/16/19 19 | Date/Time: |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
†Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
O MCP Form Required
◉ RCP Form Required
O MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

NELAC & AIHA-LAP, LLC Accredited
WBE/DBE Certified

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

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Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** RLF Date 4/16/19 Time 1915

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____
Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp -2.7, 4.3, 5.1, 4.9°C
By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA
Was COC Relinquished ? T Does Chain Agree With Samples? T
Are there broken/leaking/loose caps on any samples? F
Is COC in ink/ Legible? T Were samples received within holding time? T
Did COC include all pertinent Information? Client T Analysis T Sampler Name T
Project T ID's T Collection Dates/Times T
Are Sample labels filled out and legible? T
Are there Lab to Filters? F Who was notified? ____
Are there Rushes? F Who was notified? ____
Are there Short Holds? T Who was notified? ____
Is there enough Volume? T
Is there Headspace where applicable? F MS/MSD? F
Proper Media/Containers Used? T Is splitting samples required? F
Were trip blanks received? T On COC? T
Do all samples have the proper pH? Acid T pH<2 Base NA

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 42 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 17 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 12 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

C:\MSDCHEM\4\DATA\D042419\D0424006.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | D0424006.D |
| Data File Path | C:\MSDCHEM\4\DATA\D042419\ |
| Operator | RMW |
| Date Acquired | 4/24/2019 11:10 |
| Acq. Method File | EPH11D.M |
| Sample Name | ETPH 1500 |
| Instrument Name | GCFID4 |

| Name | Ret Time | Target Response | Average Response | *%D+/-20 |
|---|---|---|---|---|
| C-9 | 1.60 | 7995452 | 8738241 | 9 |
| C-10 | 2.25 | 8250014 | 8738241 | 6 |
| C-12 | 3.20 | 8691150 | 8738241 | 1 |
| C-14 | 3.92 | 9057300 | 8738241 | -4 |
| C-16 | 4.54 | 9183716 | 8738241 | -5 |
| C-18 | 5.10 | 9008469 | 8738241 | -3 |
| C-20 | 5.71 | 9242212 | 8738241 | -6 |
| C-22 | 6.47 | 9373230 | 8738241 | -7 |
| C-24 | 7.31 | 8476378 | 8738241 | 3 |
| C-26 | 8.12 | 9217909 | 8738241 | -5 |
| C-28 | 8.87 | 9000128 | 8738241 | -3 |
| C-30 | 9.56 | 8859196 | 8738241 | -1 |
| C-32 | 10.20 | 8630669 | 8738241 | 1 |
| C-34 | 10.80 | 8170454 | 8738241 | 6 |
| C-36 | 11.40 | 7917334 | 8738241 | 9 |

**Samples**

19D0854-01
19D0854-02
19D0854-03
19D0854-04
19D0842-01
19D0842-02
19D0842-03
19D0842-04
19D0862-02
19D0862-03
19D0862-06
19D0862-09
19D0862-07

*One compound allowed %D</=50%

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 19D0862

***Laboratory Sample ID(s):***
19D0862-01 thru 19D0862-11

***Sample Date(s):***
04/16/2019

*List RCP Methods Used:*

CTDEP ETPH, SW-846 6020B, SW-846 7470A, SW-846 8081B, SW-846 8260C, SW-846 8270D

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington **Position:** **Technical Representative**

**Printed Name:** **Lisa A. Worthington** **Date:** **04/25/19**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 25, 2019

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19D0864

Enclosed are results of analyses for samples received by the laboratory on April 16, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 3

Case Narrative 4

Sample Results 5

19D0864-01 5

19D0864-02 6

19D0864-03 7

Sample Preparation Information 8

QC Data 9

PCB Homologues by GC/MS Water 9

B228768 9

Flag/Qualifier Summary 10

Certifications 11

Chain of Custody/Sample Receipt 12

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 4/25/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 19D0864

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| ODG-FS-04161-1 | 19D0864-01 | Ground Water | | EPA 680 Modified | |
| ODG-F3-041619-2 | 19D0864-02 | Ground Water | | EPA 680 Modified | |
| OUG-F4-041619-1 | 19D0864-03 | Ground Water | | EPA 680 Modified | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0864

Date Received: 4/16/2019

**Field Sample #: ODG-FS-04161-1**
Sampled: 4/16/2019 14:30

**Sample ID: 19D0864-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.33 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Dichlorobiphenyls | 0.43 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Trichlorobiphenyls | 0.23 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Tetrachlorobiphenyls | 0.13 | 0.0022 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Pentachlorobiphenyls | 0.016 | 0.0022 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Hexachlorobiphenyls | ND | 0.0022 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Heptachlorobiphenyls | ND | 0.0033 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Octachlorobiphenyls | ND | 0.0033 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Nonachlorobiphenyls | ND | 0.0055 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Decachlorobiphenyl | ND | 0.0055 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |
| Total Polychlorinated biphenyls | 1.1 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 8:31 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 105 | 50-125 | | 4/24/19 8:31 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0864

Date Received: 4/16/2019

**Field Sample #: ODG-F3-041619-2**
Sampled: 4/16/2019 14:35

**Sample ID: 19D0864-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.26 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Dichlorobiphenyls | 0.38 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Trichlorobiphenyls | 0.21 | 0.0011 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Tetrachlorobiphenyls | 0.12 | 0.0022 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Pentachlorobiphenyls | 0.015 | 0.0022 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Hexachlorobiphenyls | ND | 0.0022 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Heptachlorobiphenyls | ND | 0.0032 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Octachlorobiphenyls | ND | 0.0032 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Nonachlorobiphenyls | ND | 0.0054 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Decachlorobiphenyl | ND | 0.0054 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |
| Total Polychlorinated biphenyls | 0.99 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:15 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 85.5 | 50-125 | | 4/24/19 0:15 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0864

Date Received: 4/16/2019

**Field Sample #: OUG-F4-041619-1**
Sampled: 4/16/2019 14:20

**Sample ID: 19D0864-03**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0059 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Dichlorobiphenyls | 0.012 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Trichlorobiphenyls | 0.013 | 0.00098 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Tetrachlorobiphenyls | 0.020 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Pentachlorobiphenyls | 0.0041 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Heptachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Octachlorobiphenyls | ND | 0.0029 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Nonachlorobiphenyls | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Decachlorobiphenyl | ND | 0.0049 | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |
| Total Polychlorinated biphenyls | 0.054 | | µg/L | 1 | | EPA 680 Modified | 4/22/19 | 4/24/19 0:52 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 96.3 | 50-125 | | 4/24/19 0:52 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

## Sample Extraction Data

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0864-01 [ODG-FS-04161-1] | B228768 | 915 | 1.00 | 04/22/19 |
| 19D0864-02 [ODG-F3-041619-2] | B228768 | 930 | 1.00 | 04/22/19 |
| 19D0864-03 [OUG-F4-041619-1] | B228768 | 1020 | 1.00 | 04/22/19 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228768 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228768-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.187* | | µg/L | 0.200 | | 93.6 | 50-125 | | | |
| **LCS (B228768-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 83.9 | 40-140 | | | |
| Dichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 85.4 | 40-140 | | | |
| Trichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 79.9 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.7 | 40-140 | | | |
| Pentachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 82.4 | 40-140 | | | |
| Hexachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 81.9 | 40-140 | | | |
| Heptachlorobiphenyls | 0.49 | 0.0030 | µg/L | 0.600 | | 81.8 | 40-140 | | | |
| Octachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 85.7 | 40-140 | | | |
| Nonachlorobiphenyls | 1.0 | 0.0050 | µg/L | 1.00 | | 99.8 | 40-140 | | | |
| Decachlorobiphenyl | 0.98 | 0.0050 | µg/L | 1.00 | | 97.9 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.176* | | µg/L | 0.200 | | 87.8 | 50-125 | | | |
| **LCS Dup (B228768-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Monochlorobiphenyls | 0.19 | 0.0010 | µg/L | 0.200 | | 92.5 | 40-140 | 9.78 | 50 | |
| Dichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 88.2 | 40-140 | 3.23 | 50 | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 83.3 | 40-140 | 4.09 | 50 | |
| Tetrachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 87.1 | 40-140 | 3.93 | 50 | |
| Pentachlorobiphenyls | 0.40 | 0.0020 | µg/L | 0.400 | | 101 | 40-140 | 20.4 | 50 | |
| Hexachlorobiphenyls | 0.33 | 0.0020 | µg/L | 0.400 | | 83.1 | 40-140 | 1.49 | 50 | |
| Heptachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 84.8 | 40-140 | 3.57 | 50 | |
| Octachlorobiphenyls | 0.52 | 0.0030 | µg/L | 0.600 | | 86.9 | 40-140 | 1.48 | 50 | |
| Nonachlorobiphenyls | 0.90 | 0.0050 | µg/L | 1.00 | | 90.3 | 40-140 | 10.0 | 50 | |
| Decachlorobiphenyl | 0.99 | 0.0050 | µg/L | 1.00 | | 99.0 | 40-140 | 1.07 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.200* | | µg/L | 0.200 | | 100 | 50-125 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |

Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.

No results have been blank subtracted unless specified in the case narrative section.

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|

**No certified Analyses included in this Report**

The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2020 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2020 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

AUB

**con-test®** ANALYTICAL LABORATORY

Phone: 413-525-2332
Fax: 413-525-6405
Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Rev 04.05.12

19D0864

Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 6 | | | | | | | | | | | # of Containers |
| | | | | | | | | I | N | I | I | H | | | | | | | ** Preservation |
| | | | | | | | | A | P | A | A | V | | | | | | | ***Container Code |
| 01 | ODG-F3-041619-1 | 4/16/19 | 1430 | | X | GW | U | X | | | | | | | | | | | |
| 02 | ODG-F3-041619-2 | 4/16/19 | 1435 | | X | GW | U | X | | | | | | | | | | | |
| | ~~ODG-1~~ (FD) | | | | | | | | | | | | | | | | | | |
| 03 | ODG-FY-041619-1 | 4/16/19 | 1420 | | X | GW | U | X | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |

Comments:

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:

H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other_____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other_____

| | | |
|---|---|---|
| Relinquished by: (signature) | 4/16/19 | Date/Time: 1454 |
| Received by: (signature) | HR | Date/Time: 4/16/19 1454 |
| Relinquished by: (signature) | NB | Date/Time: 4-16-19 1917 |
| Received by: (signature) | 4.3, 5.1c 4/16/19 | Date/Time: 1919 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

**NELAC & AIHA-LAP, LLC Accredited**
**WBE/DBE Certified**

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** BLF Date 4/16/19 Time 1915

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____ Direct from Sampling ____ Ambient ____ Melted Ice ____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 4.3, 5.1°C By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? NA Were Samples Tampered with? NA

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? NA MS/MSD? F

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid NA Base NA

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 6 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

April 29, 2019

Matthew Rood
AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067

Project Location: Greenwich, CT
Client Job Number:
Project Number: 60432356.0500
Laboratory Work Order Number: 19D0928

Enclosed are results of analyses for samples received by the laboratory on April 17, 2019. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Aaron L. Benoit
Project Manager

# Table of Contents


Sample Summary 4

Case Narrative 5

Sample Results 7

19D0928-01 7

19D0928-02 11

19D0928-03 17

19D0928-04 18

19D0928-05 25

19D0928-06 26

19D0928-07 32

19D0928-08 33

19D0928-09 34

19D0928-10 35

Sample Preparation Information 37

QC Data 39

PCB Homologues by GC/MS Water 39

B228990 39

Volatile Organic Compounds by GC/MS 41

B228877 41

Semivolatile Organic Compounds by GC/MS 44

B229036 44

Organochloride Pesticides by GC/ECD 46

B228994 46

Petroleum Hydrocarbons Analyses 49

B228884 49

# Table of Contents (continued)


Metals Analyses (Total) 50

B228805 50

B228930 51

Pesticides Degradation Report 52

Dual Column RPD Report 54

Flag/Qualifier Summary 58

Certifications 59

Chain of Custody/Sample Receipt 63

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

AECOM Environment - Rocky Hill, CT
500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
ATTN: Matthew Rood

REPORT DATE: 4/29/2019

PURCHASE ORDER NUMBER: 99513ACM

PROJECT NUMBER: 60432356.0500

**ANALYTICAL SUMMARY**

WORK ORDER NUMBER: 19D0928

The results of analyses performed on the following samples submitted to the CON-TEST Analytical Laboratory are found in this report.

PROJECT LOCATION: Greenwich, CT

| FIELD SAMPLE # | LAB ID: | MATRIX | SAMPLE DESCRIPTION | TEST | SUB LAB |
|---|---|---|---|---|---|
| MW-U20-041719-1 | 19D0928-01 | Ground Water | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| MW-Y15-041719-1 | 19D0928-02 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-Y15D-041719-1 | 19D0928-03 | Ground Water | | EPA 680 Modified | |
| MW-Y9-041719-1 | 19D0928-04 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8081B | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-AL10-041719-1 | 19D0928-05 | Ground Water | | EPA 680 Modified | |
| MW-AE8-041719-1 | 19D0928-06 | Ground Water | | CTDEP ETPH | |
| | | | | EPA 680 Modified | |
| | | | | SW-846 6020B | |
| | | | | SW-846 7470A | |
| | | | | SW-846 8260C | |
| | | | | SW-846 8270D | |
| MW-AP11-041719-1 | 19D0928-07 | Ground Water | | EPA 680 Modified | |
| MW-A630-041719-1 | 19D0928-08 | Ground Water | | EPA 680 Modified | |
| MW-Y9D-041719-1 | 19D0928-09 | Ground Water | | EPA 680 Modified | |
| VOC Trip Blank | 19D0928-10 | Trip Blank Water | | SW-846 8260C | |

con-test® ANALYTICAL LABORATORY

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**CASE NARRATIVE SUMMARY**

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

For method 8270, only PAHs were requested and reported.

**CTDEP ETPH**

**Qualifications:**

**L-07**

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.

**Analyte & Samples(s) Qualified:**

**CT ETPH**
B228884-BSD1

**EPA 680 Modified**

**Qualifications:**

**V-06**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

**Analyte & Samples(s) Qualified:**

**Pentachlorobiphenyls**
S035117-CCV2

**SW-846 8081B**

**Qualifications:**

**V-20**

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Hexachlorobenzene**
19D0928-04[MW-Y9-041719-1]

**SW-846 8260C**

**Qualifications:**

**V-34**

Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.

**Analyte & Samples(s) Qualified:**

**Bromomethane**
19D0928-01[MW-U20-041719-1], 19D0928-02[MW-Y15-041719-1], 19D0928-04[MW-Y9-041719-1], 19D0928-06[MW-AE8-041719-1], 19D0928-10[ VOC Trip Blank], B228877-BLK1, B228877-BS1, S035037-CCV1

**V-36**

Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

**Analyte & Samples(s) Qualified:**

**Acetone**
B228877-BS1, S035037-CCV1

**Carbon Disulfide**
B228877-BS1, S035037-CCV1

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**SW-846 8260C**

All water reporting limits specified on the chain-of-custody were met except for Acrylonitrile, where the most protective criteria are not met since the laboratory cannot achieve the required RCP calibration criteria at these levels, unless otherwise listed in this narrative.

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.
I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-U20-041719-1**
Sampled: 4/17/2019 07:15

**Sample ID: 19D0928-01**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0016 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |
| Total Polychlorinated biphenyls | 0.0016 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:16 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 66.8 | 50-125 | | 4/25/19 17:16 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-U20-041719-1**
Sampled: 4/17/2019 07:15
**Sample ID: 19D0928-01**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-U20-041719-1**
Sampled: 4/17/2019 07:15
**Sample ID: 19D0928-01**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:01 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 100 | 70-130 | | 4/23/19 21:01 |
| Toluene-d8 | 103 | 70-130 | | 4/23/19 21:01 |
| 4-Bromofluorobenzene | 103 | 70-130 | | 4/23/19 21:01 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-U20-041719-1**
Sampled: 4/17/2019 07:15

**Sample ID: 19D0928-01**

Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Arsenic | 0.68 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Barium | 200 | 10 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Chromium | 1.6 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Lead | 1.1 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 13:00 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:53 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-Y15-041719-1**
Sampled: 4/17/2019 08:45

**Sample ID: 19D0928-02**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 3.2 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Dichlorobiphenyls | 4.1 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Trichlorobiphenyls | 1.2 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Tetrachlorobiphenyls | 0.16 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Pentachlorobiphenyls | 0.018 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |
| Total Polychlorinated biphenyls | 8.6 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 17:53 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 111 | 50-125 | | 4/25/19 17:53 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y15-041719-1**
Sampled: 4/17/2019 08:45
**Sample ID: 19D0928-02**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y15-041719-1**
Sampled: 4/17/2019 08:45
**Sample ID: 19D0928-02**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 21:32 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/23/19 21:32 |
| Toluene-d8 | 101 | 70-130 | | 4/23/19 21:32 |
| 4-Bromofluorobenzene | 103 | 70-130 | | 4/23/19 21:32 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y15-041719-1**
Sampled: 4/17/2019 08:45
**Sample ID: 19D0928-02**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | 0.54 | 0.29 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Acenaphthylene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Anthracene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.097 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Chrysene (SIM) | ND | 0.19 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.097 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Fluoranthene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Fluorene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.097 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Naphthalene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Phenanthrene (SIM) | 0.093 | 0.049 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |
| Pyrene (SIM) | ND | 0.97 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:15 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 89.6 | 30-130 | | 4/25/19 7:15 |
| 2-Fluorobiphenyl | 58.4 | 30-130 | | 4/25/19 7:15 |
| p-Terphenyl-d14 | 65.5 | 30-130 | | 4/25/19 7:15 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y15-041719-1**
Sampled: 4/17/2019 08:45
**Sample ID: 19D0928-02**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.56 | 0.14 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 22:52 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 75.8 | 50-150 | | 4/24/19 22:52 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y15-041719-1**
Sampled: 4/17/2019 08:45
**Sample ID: 19D0928-02**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Arsenic | 2.4 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Barium | 500 | 100 | µg/L | 10 | | SW-846 6020B | 4/22/19 | 4/24/19 11:16 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 13:02 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 13:56 | QNW |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y15D-041719-1**
Sampled: 4/17/2019 10:10
**Sample ID: 19D0928-03**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.010 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Dichlorobiphenyls | 0.036 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Trichlorobiphenyls | 0.026 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Tetrachlorobiphenyls | 0.019 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Pentachlorobiphenyls | 0.0056 | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |
| Total Polychlorinated biphenyls | 0.097 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 18:30 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 112 | 50-125 | | 4/25/19 18:30 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14

**Sample ID: 19D0928-04**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Dichlorobiphenyls | 0.0015 | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Trichlorobiphenyls | ND | 0.00099 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |
| Total Polychlorinated biphenyls | 0.0015 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 22:15 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 90.8 | 50-125 | | 4/25/19 22:15 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14
**Sample ID: 19D0928-04**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14
**Sample ID: 19D0928-04**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:03 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 102 | 70-130 | | 4/23/19 22:03 |
| Toluene-d8 | 103 | 70-130 | | 4/23/19 22:03 |
| 4-Bromofluorobenzene | 104 | 70-130 | | 4/23/19 22:03 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14
**Sample ID: 19D0928-04**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.29 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Anthracene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Chrysene (SIM) | ND | 0.20 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Fluoranthene (SIM) | ND | 0.49 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Fluorene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.098 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Naphthalene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Phenanthrene (SIM) | ND | 0.049 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |
| Pyrene (SIM) | ND | 0.98 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 7:44 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 103 | 30-130 | | 4/25/19 7:44 |
| 2-Fluorobiphenyl | 65.5 | 30-130 | | 4/25/19 7:44 |
| p-Terphenyl-d14 | 77.0 | 30-130 | | 4/25/19 7:44 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14
**Sample ID: 19D0928-04**
Sample Matrix: Ground Water

**Organochloride Pesticides by GC/ECD**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Alachlor [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Aldrin [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| alpha-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| beta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| delta-BHC [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| gamma-BHC (Lindane) [1] | ND | 0.030 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Chlordane [1] | ND | 0.20 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| 4,4'-DDD [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| 4,4'-DDE [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| 4,4'-DDT [1] | ND | 0.040 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Dieldrin [1] | ND | 0.0020 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Endosulfan I [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Endosulfan II [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Endosulfan sulfate [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Endrin [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Endrin aldehyde [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Endrin ketone [1] | ND | 0.080 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Heptachlor [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Heptachlor epoxide [1] | ND | 0.050 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Hexachlorobenzene [1] | ND | 0.050 | µg/L | 1 | V-20 | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Methoxychlor [1] | ND | 0.50 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |
| Toxaphene [1] | ND | 1.0 | µg/L | 1 | | SW-846 8081B | 4/24/19 | 4/25/19 20:29 | TG |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Decachlorobiphenyl [1] | 63.2 | 30-150 | | 4/25/19 20:29 |
| Decachlorobiphenyl [2] | 81.8 | 30-150 | | 4/25/19 20:29 |
| Tetrachloro-m-xylene [1] | 79.4 | 30-150 | | 4/25/19 20:29 |
| Tetrachloro-m-xylene [2] | 78.1 | 30-150 | | 4/25/19 20:29 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14
**Sample ID: 19D0928-04**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | 0.26 | 0.15 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/24/19 23:12 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 75.3 | 50-150 | | 4/24/19 23:12 |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-Y9-041719-1**
Sampled: 4/17/2019 11:14
**Sample ID: 19D0928-04**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | 1.4 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Arsenic | 2.0 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Barium | 670 | 100 | µg/L | 10 | | SW-846 6020B | 4/22/19 | 4/24/19 11:19 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Copper | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Lead | 2.8 | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 13:03 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Vanadium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |
| Zinc | 10 | 10 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:00 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-AL10-041719-1**
Sampled: 4/17/2019 10:15

**Sample ID: 19D0928-05**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0079 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Dichlorobiphenyls | 0.0098 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Trichlorobiphenyls | 0.0011 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Tetrachlorobiphenyls | 0.0077 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Pentachlorobiphenyls | 0.0040 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |
| Total Polychlorinated biphenyls | 0.030 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:08 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 91.7 | 50-125 | | 4/25/19 19:08 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-AE8-041719-1**
Sampled: 4/17/2019 11:30
**Sample ID: 19D0928-06**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0042 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Dichlorobiphenyls | 0.0060 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Trichlorobiphenyls | 0.0087 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Tetrachlorobiphenyls | 0.028 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Pentachlorobiphenyls | 0.0031 | 0.0021 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Hexachlorobiphenyls | ND | 0.0021 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Nonachlorobiphenyls | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Decachlorobiphenyl | ND | 0.0052 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |
| Total Polychlorinated biphenyls | 0.050 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 19:45 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 69.1 | 50-125 | | 4/25/19 19:45 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-AE8-041719-1**
Sampled: 4/17/2019 11:30
**Sample ID: 19D0928-06**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-AE8-041719-1**
Sampled: 4/17/2019 11:30
**Sample ID: 19D0928-06**
Sample Matrix: Ground Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 22:33 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 101 | 70-130 | | 4/23/19 22:33 |
| Toluene-d8 | 102 | 70-130 | | 4/23/19 22:33 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/23/19 22:33 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-AE8-041719-1**
Sampled: 4/17/2019 11:30
**Sample ID: 19D0928-06**
Sample Matrix: Ground Water

**Semivolatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acenaphthene (SIM) | ND | 0.31 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Acenaphthylene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Anthracene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Benzo(a)anthracene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Benzo(b)fluoranthene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Benzo(g,h,i)perylene (SIM) | ND | 0.52 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Benzo(k)fluoranthene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Chrysene (SIM) | ND | 0.21 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Fluoranthene (SIM) | ND | 0.52 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Fluorene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Naphthalene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Phenanthrene (SIM) | ND | 0.052 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |
| Pyrene (SIM) | ND | 1.0 | µg/L | 1 | | SW-846 8270D | 4/24/19 | 4/25/19 8:13 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Nitrobenzene-d5 | 87.6 | 30-130 | | 4/25/19 8:13 |
| 2-Fluorobiphenyl | 58.9 | 30-130 | | 4/25/19 8:13 |
| p-Terphenyl-d14 | 66.8 | 30-130 | | 4/25/19 8:13 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-AE8-041719-1**
Sampled: 4/17/2019 11:30
**Sample ID: 19D0928-06**
Sample Matrix: Ground Water

**Petroleum Hydrocarbons Analyses**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| CT ETPH | ND | 0.16 | mg/L | 1 | | CTDEP ETPH | 4/23/19 | 4/25/19 14:02 | RMW |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 2-Fluorobiphenyl | 80.2 | 50-150 | | 4/25/19 14:02 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-AE8-041719-1**
Sampled: 4/17/2019 11:30
**Sample ID: 19D0928-06**
Sample Matrix: Ground Water

**Metals Analyses (Total)**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Antimony | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Arsenic | 0.86 | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Barium | 68 | 10 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Beryllium | ND | 0.40 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Cadmium | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Chromium | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Copper | 28 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Lead | ND | 1.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Mercury | ND | 0.00010 | mg/L | 1 | | SW-846 7470A | 4/25/19 | 4/25/19 13:05 | TBC |
| Nickel | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Selenium | ND | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Silver | ND | 0.50 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Thallium | ND | 0.20 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Vanadium | 5.7 | 5.0 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |
| Zinc | ND | 10 | µg/L | 1 | | SW-846 6020B | 4/22/19 | 4/23/19 14:03 | QNW |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-AP11-041719-1**
Sampled: 4/17/2019 12:10

**Sample ID: 19D0928-07**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | 0.0017 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Dichlorobiphenyls | 0.0035 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Trichlorobiphenyls | 0.0011 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |
| Total Polychlorinated biphenyls | 0.0064 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 20:22 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 96.0 | 50-125 | | 4/25/19 20:22 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: MW-A630-041719-1**
Sampled: 4/17/2019 13:45
**Sample ID: 19D0928-08**
Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Dichlorobiphenyls | 0.0018 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Heptachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Octachlorobiphenyls | ND | 0.0031 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Nonachlorobiphenyls | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Decachlorobiphenyl | ND | 0.0051 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |
| Total Polychlorinated biphenyls | 0.0018 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:00 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 80.0 | 50-125 | | 4/25/19 21:00 |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928

Date Received: 4/17/2019

**Field Sample #: MW-Y9D-041719-1**
Sampled: 4/17/2019 13:40

**Sample ID: 19D0928-09**

Sample Matrix: Ground Water

**PCB Homologues by GC/MS Water**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Monochlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Dichlorobiphenyls | 0.0012 | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |
| Total Polychlorinated biphenyls | 0.0012 | | µg/L | 1 | | EPA 680 Modified | 4/24/19 | 4/25/19 21:37 | CLA |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| Tetrachloro-m-xylene | 97.2 | 50-125 | | 4/25/19 21:37 |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/17/2019 00:00
**Sample ID: 19D0928-10**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Acrylonitrile | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Benzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Bromobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Bromodichloromethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Bromoform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Bromomethane | ND | 5.0 | µg/L | 1 | V-34 | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| n-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| sec-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| tert-Butylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Carbon Disulfide | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Carbon Tetrachloride | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Chlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Chlorodibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Chloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Chloroform | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Chloromethane | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 2-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 4-Chlorotoluene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Dibromomethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Ethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Hexachlorobutadiene | ND | 0.60 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |

con-test® ANALYTICAL LABORATORY
39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Project Location: Greenwich, CT
Sample Description:
Work Order: 19D0928
Date Received: 4/17/2019
**Field Sample #: VOC Trip Blank**
Sampled: 4/17/2019 00:00
**Sample ID: 19D0928-10**
Sample Matrix: Trip Blank Water

**Volatile Organic Compounds by GC/MS**

| Analyte | Results | RL | Units | Dilution | Flag/Qual | Method | Date Prepared | Date/Time Analyzed | Analyst |
|---|---|---|---|---|---|---|---|---|---|
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Methylene Chloride | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Naphthalene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| n-Propylbenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Styrene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Tetrachloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Tetrahydrofuran | ND | 10 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Toluene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Trichloroethylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| Vinyl Chloride | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| m+p Xylene | ND | 2.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |
| o-Xylene | ND | 1.0 | µg/L | 1 | | SW-846 8260C | 4/23/19 | 4/23/19 18:28 | LBD |

| Surrogates | % Recovery | Recovery Limits | Flag/Qual | |
|---|---|---|---|---|
| 1,2-Dichloroethane-d4 | 103 | 70-130 | | 4/23/19 18:28 |
| Toluene-d8 | 102 | 70-130 | | 4/23/19 18:28 |
| 4-Bromofluorobenzene | 102 | 70-130 | | 4/23/19 18:28 |

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## Sample Extraction Data

**Prep Method: SW-846 3510C-CTDEP ETPH**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-02 [MW-Y15-041719-1] | B228884 | 1050 | 1.00 | 04/23/19 |
| 19D0928-04 [MW-Y9-041719-1] | B228884 | 1030 | 1.00 | 04/23/19 |
| 19D0928-06 [MW-AE8-041719-1] | B228884 | 940 | 1.00 | 04/23/19 |

**Prep Method: SW-846 3510C-EPA 680 Modified**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-01 [MW-U20-041719-1] | B228990 | 980 | 1.00 | 04/24/19 |
| 19D0928-02 [MW-Y15-041719-1] | B228990 | 1000 | 1.00 | 04/24/19 |
| 19D0928-03 [MW-Y15D-041719-1] | B228990 | 1000 | 1.00 | 04/24/19 |
| 19D0928-04 [MW-Y9-041719-1] | B228990 | 1010 | 1.00 | 04/24/19 |
| 19D0928-05 [MW-AL10-041719-1] | B228990 | 960 | 1.00 | 04/24/19 |
| 19D0928-06 [MW-AE8-041719-1] | B228990 | 970 | 1.00 | 04/24/19 |
| 19D0928-07 [MW-AP11-041719-1] | B228990 | 980 | 1.00 | 04/24/19 |
| 19D0928-08 [MW-A630-041719-1] | B228990 | 980 | 1.00 | 04/24/19 |
| 19D0928-09 [MW-Y9D-041719-1] | B228990 | 1000 | 1.00 | 04/24/19 |

**Prep Method: SW-846 3005A-SW-846 6020B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-01 [MW-U20-041719-1] | B228805 | 50.0 | 50.0 | 04/22/19 |
| 19D0928-02 [MW-Y15-041719-1] | B228805 | 50.0 | 50.0 | 04/22/19 |
| 19D0928-04 [MW-Y9-041719-1] | B228805 | 50.0 | 50.0 | 04/22/19 |
| 19D0928-06 [MW-AE8-041719-1] | B228805 | 50.0 | 50.0 | 04/22/19 |

**Prep Method: SW-846 7470A Prep-SW-846 7470A**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-01 [MW-U20-041719-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0928-02 [MW-Y15-041719-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0928-04 [MW-Y9-041719-1] | B228930 | 6.00 | 6.00 | 04/25/19 |
| 19D0928-06 [MW-AE8-041719-1] | B228930 | 6.00 | 6.00 | 04/25/19 |

**Prep Method: SW-846 3510C-SW-846 8081B**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-04 [MW-Y9-041719-1] | B228994 | 1000 | 10.0 | 04/24/19 |

**Prep Method: SW-846 5030B-SW-846 8260C**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-01 [MW-U20-041719-1] | B228877 | 5 | 5.00 | 04/23/19 |
| 19D0928-02 [MW-Y15-041719-1] | B228877 | 5 | 5.00 | 04/23/19 |
| 19D0928-04 [MW-Y9-041719-1] | B228877 | 5 | 5.00 | 04/23/19 |
| 19D0928-06 [MW-AE8-041719-1] | B228877 | 5 | 5.00 | 04/23/19 |
| 19D0928-10 [VOC Trip Blank] | B228877 | 5 | 5.00 | 04/23/19 |

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## Sample Extraction Data

**Prep Method: SW-846 3510C-SW-846 8270D**

| Lab Number [Field ID] | Batch | Initial [mL] | Final [mL] | Date |
|---|---|---|---|---|
| 19D0928-02 [MW-Y15-041719-1] | B229036 | 1030 | 1.00 | 04/24/19 |
| 19D0928-04 [MW-Y9-041719-1] | B229036 | 1020 | 1.00 | 04/24/19 |
| 19D0928-06 [MW-AE8-041719-1] | B229036 | 970 | 1.00 | 04/24/19 |

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**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228990 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228990-BLK1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Monochlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Dichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Trichlorobiphenyls | ND | 0.0010 | µg/L | | | | | | | |
| Tetrachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Pentachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Hexachlorobiphenyls | ND | 0.0020 | µg/L | | | | | | | |
| Heptachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Octachlorobiphenyls | ND | 0.0030 | µg/L | | | | | | | |
| Nonachlorobiphenyls | ND | 0.0050 | µg/L | | | | | | | |
| Decachlorobiphenyl | ND | 0.0050 | µg/L | | | | | | | |
| Total Polychlorinated biphenyls | 0.0 | | µg/L | | | | | | | |
| Surrogate: Tetrachloro-m-xylene | *0.173* | | µg/L | 0.200 | | 86.6 | 50-125 | | | |
| **LCS (B228990-BS1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Monochlorobiphenyls | 0.15 | 0.0010 | µg/L | 0.200 | | 74.7 | 40-140 | | | |
| Dichlorobiphenyls | 0.18 | 0.0010 | µg/L | 0.200 | | 89.0 | 40-140 | | | |
| Trichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 85.4 | 40-140 | | | |
| Tetrachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 88.6 | 40-140 | | | |
| Pentachlorobiphenyls | 0.39 | 0.0020 | µg/L | 0.400 | | 96.5 | 40-140 | | | |
| Hexachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 92.9 | 40-140 | | | |
| Heptachlorobiphenyls | 0.55 | 0.0030 | µg/L | 0.600 | | 91.4 | 40-140 | | | |
| Octachlorobiphenyls | 0.55 | 0.0030 | µg/L | 0.600 | | 92.4 | 40-140 | | | |
| Nonachlorobiphenyls | 1.0 | 0.0050 | µg/L | 1.00 | | 101 | 40-140 | | | |
| Decachlorobiphenyl | 0.97 | 0.0050 | µg/L | 1.00 | | 97.0 | 40-140 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.181* | | µg/L | 0.200 | | 90.3 | 50-125 | | | |
| **LCS Dup (B228990-BSD1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Monochlorobiphenyls | 0.14 | 0.0010 | µg/L | 0.200 | | 70.7 | 40-140 | 5.48 | 50 | |
| Dichlorobiphenyls | 0.17 | 0.0010 | µg/L | 0.200 | | 82.6 | 40-140 | 7.51 | 50 | |
| Trichlorobiphenyls | 0.16 | 0.0010 | µg/L | 0.200 | | 81.3 | 40-140 | 4.86 | 50 | |
| Tetrachlorobiphenyls | 0.34 | 0.0020 | µg/L | 0.400 | | 84.3 | 40-140 | 5.07 | 50 | |
| Pentachlorobiphenyls | 0.37 | 0.0020 | µg/L | 0.400 | | 92.8 | 40-140 | 3.86 | 50 | |
| Hexachlorobiphenyls | 0.35 | 0.0020 | µg/L | 0.400 | | 86.3 | 40-140 | 7.37 | 50 | |
| Heptachlorobiphenyls | 0.51 | 0.0030 | µg/L | 0.600 | | 84.5 | 40-140 | 7.88 | 50 | |
| Octachlorobiphenyls | 0.53 | 0.0030 | µg/L | 0.600 | | 88.1 | 40-140 | 4.74 | 50 | |
| Nonachlorobiphenyls | 0.93 | 0.0050 | µg/L | 1.00 | | 93.4 | 40-140 | 8.15 | 50 | |
| Decachlorobiphenyl | 0.87 | 0.0050 | µg/L | 1.00 | | 86.7 | 40-140 | 11.2 | 50 | |
| Surrogate: Tetrachloro-m-xylene | *0.167* | | µg/L | 0.200 | | 83.6 | 50-125 | | | |
| **Matrix Spike (B228990-MS1)** | | **Source: 19D0928-07** | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Monochlorobiphenyls | 0.174 | 0.0010 | µg/L | 0.204 | 0.00171 | 84.6 | 0-200 | | | |
| Dichlorobiphenyls | 0.170 | 0.0010 | µg/L | 0.204 | 0.00353 | 81.5 | 0-200 | | | |
| Trichlorobiphenyls | 0.162 | 0.0010 | µg/L | 0.204 | 0.00113 | 79.0 | 0-200 | | | |
| Tetrachlorobiphenyls | 0.200 | 0.0020 | µg/L | 0.408 | ND | 49.1 | 0-200 | | | |
| Pentachlorobiphenyls | 0.423 | 0.0020 | µg/L | 0.408 | ND | 104 | 0-200 | | | |
| Hexachlorobiphenyls | 0.432 | 0.0020 | µg/L | 0.408 | ND | 106 | 0-200 | | | |
| Heptachlorobiphenyls | 0.558 | 0.0031 | µg/L | 0.612 | ND | 91.1 | 0-200 | | | |
| Octachlorobiphenyls | 0.583 | 0.0031 | µg/L | 0.612 | ND | 95.2 | 0-200 | | | |
| Nonachlorobiphenyls | 1.06 | 0.0051 | µg/L | 1.02 | ND | 104 | 0-200 | | | |
| Decachlorobiphenyl | 1.10 | 0.0051 | µg/L | 1.02 | ND | 107 | 0-200 | | | |
| Surrogate: Tetrachloro-m-xylene | *0.170* | | µg/L | 0.204 | | 83.2 | 50-125 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**PCB Homologues by GC/MS Water - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228990 - SW-846 3510C** | | | | | | | | | | |
| **Matrix Spike Dup (B228990-MSD1)** | | **Source: 19D0928-07** | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| Monochlorobiphenyls | 0.155 | 0.0010 | µg/L | 0.204 | 0.00171 | 75.4 | 0-200 | 11.4 | | |
| Dichlorobiphenyls | 0.147 | 0.0010 | µg/L | 0.204 | 0.00353 | 70.1 | 0-200 | 14.7 | | |
| Trichlorobiphenyls | 0.140 | 0.0010 | µg/L | 0.204 | 0.00113 | 68.2 | 0-200 | 14.5 | | |
| Tetrachlorobiphenyls | 0.298 | 0.0020 | µg/L | 0.408 | ND | 73.1 | 0-200 | 39.2 | | |
| Pentachlorobiphenyls | 0.330 | 0.0020 | µg/L | 0.408 | ND | 80.8 | 0-200 | 24.8 | | |
| Hexachlorobiphenyls | 0.337 | 0.0020 | µg/L | 0.408 | ND | 82.5 | 0-200 | 24.8 | | |
| Heptachlorobiphenyls | 0.563 | 0.0031 | µg/L | 0.612 | ND | 91.9 | 0-200 | 0.869 | | |
| Octachlorobiphenyls | 0.512 | 0.0031 | µg/L | 0.612 | ND | 83.6 | 0-200 | 12.9 | | |
| Nonachlorobiphenyls | 0.941 | 0.0051 | µg/L | 1.02 | ND | 92.2 | 0-200 | 12.4 | | |
| Decachlorobiphenyl | 0.968 | 0.0051 | µg/L | 1.02 | ND | 94.8 | 0-200 | 12.3 | | |
| Surrogate: Tetrachloro-m-xylene | *0.283* | | µg/L | 0.408 | | 69.3 | 50-125 | | | |

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**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228877 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228877-BLK1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| Acetone | ND | 10 | µg/L | | | | | | | |
| Acrylonitrile | ND | 2.0 | µg/L | | | | | | | |
| Benzene | ND | 0.50 | µg/L | | | | | | | |
| Bromobenzene | ND | 0.50 | µg/L | | | | | | | |
| Bromodichloromethane | ND | 0.50 | µg/L | | | | | | | |
| Bromoform | ND | 0.50 | µg/L | | | | | | | |
| Bromomethane | ND | 1.0 | µg/L | | | | | | | V-34 |
| 2-Butanone (MEK) | ND | 5.0 | µg/L | | | | | | | |
| n-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| sec-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| tert-Butylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Carbon Disulfide | ND | 5.0 | µg/L | | | | | | | |
| Carbon Tetrachloride | ND | 0.50 | µg/L | | | | | | | |
| Chlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| Chlorodibromomethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroethane | ND | 0.50 | µg/L | | | | | | | |
| Chloroform | ND | 0.50 | µg/L | | | | | | | |
| Chloromethane | ND | 0.60 | µg/L | | | | | | | |
| 2-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 4-Chlorotoluene | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dibromoethane (EDB) | ND | 0.50 | µg/L | | | | | | | |
| Dibromomethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,4-Dichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,4-Dichloro-2-butene | ND | 2.0 | µg/L | | | | | | | |
| Dichlorodifluoromethane (Freon 12) | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,2-Dichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,2-Dichloroethylene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,2-Dichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| 1,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,3-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 2,2-Dichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| cis-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| trans-1,3-Dichloropropene | ND | 0.50 | µg/L | | | | | | | |
| Ethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Hexachlorobutadiene | ND | 0.60 | µg/L | | | | | | | |
| 2-Hexanone (MBK) | ND | 5.0 | µg/L | | | | | | | |
| Isopropylbenzene (Cumene) | ND | 0.50 | µg/L | | | | | | | |
| p-Isopropyltoluene (p-Cymene) | ND | 0.50 | µg/L | | | | | | | |
| Methyl tert-Butyl Ether (MTBE) | ND | 0.50 | µg/L | | | | | | | |
| Methylene Chloride | ND | 5.0 | µg/L | | | | | | | |
| 4-Methyl-2-pentanone (MIBK) | ND | 5.0 | µg/L | | | | | | | |
| Naphthalene | ND | 2.0 | µg/L | | | | | | | |
| n-Propylbenzene | ND | 1.0 | µg/L | | | | | | | |
| Styrene | ND | 1.0 | µg/L | | | | | | | |
| 1,1,1,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2,2-Tetrachloroethane | ND | 0.50 | µg/L | | | | | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228877 - SW-846 5030B** | | | | | | | | | | |
| **Blank (B228877-BLK1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| Tetrachloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Tetrahydrofuran | ND | 10 | µg/L | | | | | | | |
| Toluene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,3-Trichlorobenzene | ND | 1.0 | µg/L | | | | | | | |
| 1,2,4-Trichlorobenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,1,1-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloroethane | ND | 0.50 | µg/L | | | | | | | |
| Trichloroethylene | ND | 1.0 | µg/L | | | | | | | |
| Trichlorofluoromethane (Freon 11) | ND | 2.0 | µg/L | | | | | | | |
| 1,2,3-Trichloropropane | ND | 0.50 | µg/L | | | | | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | ND | 0.50 | µg/L | | | | | | | |
| 1,2,4-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| 1,3,5-Trimethylbenzene | ND | 0.50 | µg/L | | | | | | | |
| Vinyl Chloride | ND | 1.0 | µg/L | | | | | | | |
| m+p Xylene | ND | 2.0 | µg/L | | | | | | | |
| o-Xylene | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.7* | | µg/L | 25.0 | | 103 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.5* | | µg/L | 25.0 | | 102 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *26.2* | | µg/L | 25.0 | | 105 | 70-130 | | | |
| **LCS (B228877-BS1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| Acetone | 98.4 | 10 | µg/L | 100 | | 98.4 | 70-130 | | | V-36 |
| Acrylonitrile | 9.76 | 2.0 | µg/L | 10.0 | | 97.6 | 70-130 | | | |
| Benzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Bromobenzene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Bromodichloromethane | 10.8 | 0.50 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Bromoform | 10.0 | 0.50 | µg/L | 10.0 | | 100 | 70-130 | | | |
| Bromomethane | 10.9 | 1.0 | µg/L | 10.0 | | 109 | 70-130 | | | V-34 |
| 2-Butanone (MEK) | 98.9 | 5.0 | µg/L | 100 | | 98.9 | 70-130 | | | |
| n-Butylbenzene | 9.32 | 1.0 | µg/L | 10.0 | | 93.2 | 70-130 | | | |
| sec-Butylbenzene | 9.59 | 1.0 | µg/L | 10.0 | | 95.9 | 70-130 | | | |
| tert-Butylbenzene | 9.66 | 1.0 | µg/L | 10.0 | | 96.6 | 70-130 | | | |
| Carbon Disulfide | 102 | 5.0 | µg/L | 100 | | 102 | 70-130 | | | V-36 |
| Carbon Tetrachloride | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Chlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| Chlorodibromomethane | 11.0 | 0.50 | µg/L | 10.0 | | 110 | 70-130 | | | |
| Chloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| Chloroform | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Chloromethane | 9.01 | 0.60 | µg/L | 10.0 | | 90.1 | 70-130 | | | |
| 2-Chlorotoluene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 4-Chlorotoluene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane (DBCP) | 9.82 | 1.0 | µg/L | 10.0 | | 98.2 | 70-130 | | | |
| 1,2-Dibromoethane (EDB) | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Dibromomethane | 11.6 | 0.50 | µg/L | 10.0 | | 116 | 70-130 | | | |
| 1,2-Dichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,3-Dichlorobenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| 1,4-Dichlorobenzene | 9.97 | 0.50 | µg/L | 10.0 | | 99.7 | 70-130 | | | |
| trans-1,4-Dichloro-2-butene | 9.20 | 2.0 | µg/L | 10.0 | | 92.0 | 70-130 | | | |
| Dichlorodifluoromethane (Freon 12) | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,1-Dichloroethane | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,2-Dichloroethane | 10.9 | 0.50 | µg/L | 10.0 | | 109 | 70-130 | | | |
| 1,1-Dichloroethylene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Volatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228877 - SW-846 5030B** | | | | | | | | | | |
| **LCS (B228877-BS1)** | | | | Prepared & Analyzed: 04/23/19 | | | | | | |
| cis-1,2-Dichloroethylene | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| trans-1,2-Dichloroethylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,2-Dichloropropane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 1,3-Dichloropropane | 10.7 | 0.50 | µg/L | 10.0 | | 107 | 70-130 | | | |
| 2,2-Dichloropropane | 9.44 | 0.50 | µg/L | 10.0 | | 94.4 | 70-130 | | | |
| 1,1-Dichloropropene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| cis-1,3-Dichloropropene | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| trans-1,3-Dichloropropene | 10.3 | 0.50 | µg/L | 10.0 | | 103 | 70-130 | | | |
| Ethylbenzene | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Hexachlorobutadiene | 11.1 | 0.60 | µg/L | 10.0 | | 111 | 70-130 | | | |
| 2-Hexanone (MBK) | 97.0 | 5.0 | µg/L | 100 | | 97.0 | 70-130 | | | |
| Isopropylbenzene (Cumene) | 10.1 | 0.50 | µg/L | 10.0 | | 101 | 70-130 | | | |
| p-Isopropyltoluene (p-Cymene) | 9.59 | 0.50 | µg/L | 10.0 | | 95.9 | 70-130 | | | |
| Methyl tert-Butyl Ether (MTBE) | 9.88 | 0.50 | µg/L | 10.0 | | 98.8 | 70-130 | | | |
| Methylene Chloride | 10.4 | 5.0 | µg/L | 10.0 | | 104 | 70-130 | | | |
| 4-Methyl-2-pentanone (MIBK) | 98.5 | 5.0 | µg/L | 100 | | 98.5 | 70-130 | | | |
| Naphthalene | 10.2 | 2.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| n-Propylbenzene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Styrene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,1,1,2-Tetrachloroethane | 10.6 | 0.50 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 9.82 | 0.50 | µg/L | 10.0 | | 98.2 | 70-130 | | | |
| Tetrachloroethylene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | 70-130 | | | |
| Tetrahydrofuran | 9.58 | 10 | µg/L | 10.0 | | 95.8 | 70-130 | | | |
| Toluene | 10.2 | 1.0 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 10.8 | 1.0 | µg/L | 10.0 | | 108 | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,1,1-Trichloroethane | 10.5 | 0.50 | µg/L | 10.0 | | 105 | 70-130 | | | |
| 1,1,2-Trichloroethane | 10.4 | 0.50 | µg/L | 10.0 | | 104 | 70-130 | | | |
| Trichloroethylene | 10.5 | 1.0 | µg/L | 10.0 | | 105 | 70-130 | | | |
| Trichlorofluoromethane (Freon 11) | 10.6 | 2.0 | µg/L | 10.0 | | 106 | 70-130 | | | |
| 1,2,3-Trichloropropane | 9.69 | 0.50 | µg/L | 10.0 | | 96.9 | 70-130 | | | |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | 10.2 | 0.50 | µg/L | 10.0 | | 102 | 70-130 | | | |
| 1,2,4-Trimethylbenzene | 9.32 | 0.50 | µg/L | 10.0 | | 93.2 | 70-130 | | | |
| 1,3,5-Trimethylbenzene | 9.62 | 0.50 | µg/L | 10.0 | | 96.2 | 70-130 | | | |
| Vinyl Chloride | 10.3 | 1.0 | µg/L | 10.0 | | 103 | 70-130 | | | |
| m+p Xylene | 20.2 | 2.0 | µg/L | 20.0 | | 101 | 70-130 | | | |
| o-Xylene | 10.1 | 1.0 | µg/L | 10.0 | | 101 | 70-130 | | | |
| Surrogate: 1,2-Dichloroethane-d4 | *25.0* | | µg/L | 25.0 | | 100 | 70-130 | | | |
| Surrogate: Toluene-d8 | *25.0* | | µg/L | 25.0 | | 100 | 70-130 | | | |
| Surrogate: 4-Bromofluorobenzene | *25.4* | | µg/L | 25.0 | | 102 | 70-130 | | | |

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**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229036 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B229036-BLK1)** | | | | Prepared & Analyzed: 04/24/19 | | | | | | |
| Acenaphthene (SIM) | ND | 0.30 | µg/L | | | | | | | |
| Acenaphthylene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Anthracene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Benzo(a)anthracene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(a)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Benzo(b)fluoranthene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Benzo(g,h,i)perylene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Benzo(k)fluoranthene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Chrysene (SIM) | ND | 0.20 | µg/L | | | | | | | |
| Dibenz(a,h)anthracene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| Fluoranthene (SIM) | ND | 0.50 | µg/L | | | | | | | |
| Fluorene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | ND | 0.10 | µg/L | | | | | | | |
| 2-Methylnaphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Naphthalene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Phenanthrene (SIM) | ND | 0.050 | µg/L | | | | | | | |
| Pyrene (SIM) | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Nitrobenzene-d5 | *110* | | µg/L | 100 | | 110 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *74.4* | | µg/L | 100 | | 74.4 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *92.8* | | µg/L | 100 | | 92.8 | 30-130 | | | |
| **LCS (B229036-BS1)** | | | | Prepared & Analyzed: 04/24/19 | | | | | | |
| Acenaphthene (SIM) | 43.0 | 6.0 | µg/L | 50.0 | | 86.0 | 40-140 | | | |
| Acenaphthylene (SIM) | 44.5 | 4.0 | µg/L | 50.0 | | 89.1 | 40-140 | | | |
| Anthracene (SIM) | 47.0 | 4.0 | µg/L | 50.0 | | 94.0 | 40-140 | | | |
| Benzo(a)anthracene (SIM) | 43.3 | 1.0 | µg/L | 50.0 | | 86.5 | 40-140 | | | |
| Benzo(a)pyrene (SIM) | 48.9 | 2.0 | µg/L | 50.0 | | 97.8 | 40-140 | | | |
| Benzo(b)fluoranthene (SIM) | 47.5 | 1.0 | µg/L | 50.0 | | 95.0 | 40-140 | | | |
| Benzo(g,h,i)perylene (SIM) | 45.8 | 10 | µg/L | 50.0 | | 91.6 | 40-140 | | | |
| Benzo(k)fluoranthene (SIM) | 47.8 | 4.0 | µg/L | 50.0 | | 95.7 | 40-140 | | | |
| Chrysene (SIM) | 43.8 | 4.0 | µg/L | 50.0 | | 87.6 | 40-140 | | | |
| Dibenz(a,h)anthracene (SIM) | 48.3 | 2.0 | µg/L | 50.0 | | 96.7 | 40-140 | | | |
| Fluoranthene (SIM) | 45.0 | 10 | µg/L | 50.0 | | 90.0 | 40-140 | | | |
| Fluorene (SIM) | 47.1 | 20 | µg/L | 50.0 | | 94.3 | 40-140 | | | |
| Indeno(1,2,3-cd)pyrene (SIM) | 48.2 | 2.0 | µg/L | 50.0 | | 96.4 | 40-140 | | | |
| 2-Methylnaphthalene (SIM) | 44.2 | 20 | µg/L | 50.0 | | 88.3 | 40-140 | | | |
| Naphthalene (SIM) | 41.3 | 20 | µg/L | 50.0 | | 82.6 | 40-140 | | | |
| Phenanthrene (SIM) | 44.7 | 1.0 | µg/L | 50.0 | | 89.4 | 40-140 | | | |
| Pyrene (SIM) | 42.1 | 20 | µg/L | 50.0 | | 84.2 | 40-140 | | | |
| Surrogate: Nitrobenzene-d5 | *91.3* | | µg/L | 100 | | 91.3 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *64.7* | | µg/L | 100 | | 64.7 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *74.2* | | µg/L | 100 | | 74.2 | 30-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Semivolatile Organic Compounds by GC/MS - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B229036 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B229036-BSD1)** | | | | Prepared & Analyzed: 04/24/19 | | | | | | |
| Acenaphthene (SIM) | 46.3 | 6.0 | µg/L | 50.0 | | 92.7 | 40-140 | 7.52 | 20 | |
| Acenaphthylene (SIM) | 47.9 | 4.0 | µg/L | 50.0 | | 95.8 | 40-140 | 7.23 | 20 | |
| Anthracene (SIM) | 48.9 | 4.0 | µg/L | 50.0 | | 97.8 | 40-140 | 3.96 | 20 | |
| Benzo(a)anthracene (SIM) | 45.8 | 1.0 | µg/L | 50.0 | | 91.7 | 40-140 | 5.79 | 20 | |
| Benzo(a)pyrene (SIM) | 51.8 | 2.0 | µg/L | 50.0 | | 104 | 40-140 | 5.84 | 20 | |
| Benzo(b)fluoranthene (SIM) | 50.3 | 1.0 | µg/L | 50.0 | | 101 | 40-140 | 5.69 | 20 | |
| Benzo(g,h,i)perylene (SIM) | 48.4 | 10 | µg/L | 50.0 | | 96.8 | 40-140 | 5.52 | 20 | |
| Benzo(k)fluoranthene (SIM) | 50.8 | 4.0 | µg/L | 50.0 | | 102 | 40-140 | 6.00 | 20 | |
| Chrysene (SIM) | 46.5 | 4.0 | µg/L | 50.0 | | 93.1 | 40-140 | 6.07 | 20 | |
| Dibenz(a,h)anthracene (SIM) | 50.9 | 2.0 | µg/L | 50.0 | | 102 | 40-140 | 5.16 | 20 | |
| Fluoranthene (SIM) | 47.4 | 10 | µg/L | 50.0 | | 94.8 | 40-140 | 5.24 | 20 | |
| Fluorene (SIM) | 49.6 | 20 | µg/L | 50.0 | | 99.2 | 40-140 | 5.13 | 20 | |
| Indeno(1,2,3-cd)pyrene (SIM) | 50.7 | 2.0 | µg/L | 50.0 | | 101 | 40-140 | 5.01 | 20 | ‡ |
| 2-Methylnaphthalene (SIM) | 48.3 | 20 | µg/L | 50.0 | | 96.7 | 40-140 | 9.04 | 20 | |
| Naphthalene (SIM) | 47.2 | 20 | µg/L | 50.0 | | 94.4 | 40-140 | 13.3 | 20 | |
| Phenanthrene (SIM) | 46.4 | 1.0 | µg/L | 50.0 | | 92.8 | 40-140 | 3.69 | 20 | |
| Pyrene (SIM) | 44.2 | 20 | µg/L | 50.0 | | 88.4 | 40-140 | 4.91 | 20 | |
| Surrogate: Nitrobenzene-d5 | *98.5* | | µg/L | 100 | | 98.5 | 30-130 | | | |
| Surrogate: 2-Fluorobiphenyl | *72.9* | | µg/L | 100 | | 72.9 | 30-130 | | | |
| Surrogate: p-Terphenyl-d14 | *77.4* | | µg/L | 100 | | 77.4 | 30-130 | | | |

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228994 - SW-846 3510C** | | | | | | | | | | |
| **Blank (B228994-BLK1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| alpha-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| alpha-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane | ND | 0.050 | µg/L | | | | | | | |
| gamma-Chlordane [2C] | ND | 0.050 | µg/L | | | | | | | |
| Alachlor | ND | 0.20 | µg/L | | | | | | | |
| Alachlor [2C] | ND | 0.20 | µg/L | | | | | | | |
| Aldrin | ND | 0.050 | µg/L | | | | | | | |
| Aldrin [2C] | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC | ND | 0.050 | µg/L | | | | | | | |
| alpha-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC | ND | 0.050 | µg/L | | | | | | | |
| beta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC | ND | 0.050 | µg/L | | | | | | | |
| delta-BHC [2C] | ND | 0.050 | µg/L | | | | | | | |
| gamma-BHC (Lindane) | ND | 0.030 | µg/L | | | | | | | |
| gamma-BHC (Lindane) [2C] | ND | 0.030 | µg/L | | | | | | | |
| Chlordane | ND | 0.20 | µg/L | | | | | | | |
| Chlordane [2C] | ND | 0.20 | µg/L | | | | | | | |
| 4,4'-DDD | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDD [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDE [2C] | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT | ND | 0.040 | µg/L | | | | | | | |
| 4,4'-DDT [2C] | ND | 0.040 | µg/L | | | | | | | |
| Dieldrin | ND | 0.0020 | µg/L | | | | | | | |
| Dieldrin [2C] | ND | 0.0020 | µg/L | | | | | | | |
| Endosulfan I | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan I [2C] | ND | 0.050 | µg/L | | | | | | | |
| Endosulfan II | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan II [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate | ND | 0.080 | µg/L | | | | | | | |
| Endosulfan Sulfate [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin | ND | 0.080 | µg/L | | | | | | | |
| Endrin [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde | ND | 0.080 | µg/L | | | | | | | |
| Endrin Aldehyde [2C] | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone | ND | 0.080 | µg/L | | | | | | | |
| Endrin Ketone [2C] | ND | 0.080 | µg/L | | | | | | | |
| Heptachlor | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor [2C] | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide | ND | 0.050 | µg/L | | | | | | | |
| Heptachlor Epoxide [2C] | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene | ND | 0.050 | µg/L | | | | | | | |
| Hexachlorobenzene [2C] | ND | 0.050 | µg/L | | | | | | | |
| Methoxychlor | ND | 0.50 | µg/L | | | | | | | |
| Methoxychlor [2C] | ND | 0.50 | µg/L | | | | | | | |
| Toxaphene | ND | 1.0 | µg/L | | | | | | | |
| Toxaphene [2C] | ND | 1.0 | µg/L | | | | | | | |
| Surrogate: Decachlorobiphenyl | *1.43* | | µg/L | 2.00 | | 71.6 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.75* | | µg/L | 2.00 | | 87.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.43* | | µg/L | 2.00 | | 71.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.43* | | µg/L | 2.00 | | 71.5 | 30-150 | | | |

con-test® ANALYTICAL LABORATORY

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228994 - SW-846 3510C** | | | | | | | | | | |
| **LCS (B228994-BS1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| alpha-Chlordane | 0.86 | 0.050 | µg/L | 1.00 | | 85.7 | 0-200 | | | |
| alpha-Chlordane [2C] | 0.87 | 0.050 | µg/L | 1.00 | | 87.5 | 0-200 | | | |
| gamma-Chlordane | 0.85 | 0.050 | µg/L | 1.00 | | 85.2 | 0-200 | | | |
| gamma-Chlordane [2C] | 0.88 | 0.050 | µg/L | 1.00 | | 88.0 | 0-200 | | | |
| Alachlor | 0.80 | 0.20 | µg/L | 1.00 | | 80.1 | 40-140 | | | |
| Alachlor [2C] | 0.81 | 0.20 | µg/L | 1.00 | | 81.3 | 40-140 | | | |
| Aldrin | 0.86 | 0.050 | µg/L | 1.00 | | 85.6 | 40-140 | | | |
| Aldrin [2C] | 0.85 | 0.050 | µg/L | 1.00 | | 85.3 | 40-140 | | | |
| alpha-BHC | 0.84 | 0.050 | µg/L | 1.00 | | 84.2 | 40-140 | | | |
| alpha-BHC [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 85.7 | 40-140 | | | |
| beta-BHC | 0.86 | 0.050 | µg/L | 1.00 | | 85.6 | 40-140 | | | |
| beta-BHC [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 92.3 | 40-140 | | | |
| delta-BHC | 0.87 | 0.050 | µg/L | 1.00 | | 86.9 | 40-140 | | | |
| delta-BHC [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 86.4 | 40-140 | | | |
| gamma-BHC (Lindane) | 0.84 | 0.030 | µg/L | 1.00 | | 84.2 | 40-140 | | | |
| gamma-BHC (Lindane) [2C] | 0.85 | 0.030 | µg/L | 1.00 | | 84.6 | 40-140 | | | |
| 4,4'-DDD | 0.92 | 0.040 | µg/L | 1.00 | | 92.2 | 40-140 | | | |
| 4,4'-DDD [2C] | 0.90 | 0.040 | µg/L | 1.00 | | 90.4 | 40-140 | | | |
| 4,4'-DDE | 0.92 | 0.040 | µg/L | 1.00 | | 92.3 | 40-140 | | | |
| 4,4'-DDE [2C] | 0.91 | 0.040 | µg/L | 1.00 | | 90.6 | 40-140 | | | |
| 4,4'-DDT | 0.86 | 0.040 | µg/L | 1.00 | | 85.8 | 40-140 | | | |
| 4,4'-DDT [2C] | 0.88 | 0.040 | µg/L | 1.00 | | 87.9 | 40-140 | | | |
| Dieldrin | 0.85 | 0.0020 | µg/L | 1.00 | | 84.6 | 40-140 | | | |
| Dieldrin [2C] | 0.82 | 0.0020 | µg/L | 1.00 | | 82.4 | 40-140 | | | |
| Endosulfan I | 0.84 | 0.050 | µg/L | 1.00 | | 83.8 | 40-140 | | | |
| Endosulfan I [2C] | 0.86 | 0.050 | µg/L | 1.00 | | 86.2 | 40-140 | | | |
| Endosulfan II | 0.86 | 0.080 | µg/L | 1.00 | | 86.0 | 40-140 | | | |
| Endosulfan II [2C] | 0.88 | 0.080 | µg/L | 1.00 | | 88.1 | 40-140 | | | |
| Endosulfan Sulfate | 0.87 | 0.080 | µg/L | 1.00 | | 87.3 | 40-140 | | | |
| Endosulfan Sulfate [2C] | 0.86 | 0.080 | µg/L | 1.00 | | 86.3 | 40-140 | | | |
| Endrin | 0.87 | 0.080 | µg/L | 1.00 | | 86.5 | 40-140 | | | |
| Endrin [2C] | 0.87 | 0.080 | µg/L | 1.00 | | 87.4 | 40-140 | | | |
| Endrin Aldehyde | 0.82 | 0.080 | µg/L | 1.00 | | 81.7 | 40-140 | | | |
| Endrin Aldehyde [2C] | 0.84 | 0.080 | µg/L | 1.00 | | 84.0 | 40-140 | | | |
| Endrin Ketone | 0.89 | 0.080 | µg/L | 1.00 | | 89.1 | 40-140 | | | |
| Endrin Ketone [2C] | 0.91 | 0.080 | µg/L | 1.00 | | 90.7 | 40-140 | | | |
| Heptachlor | 0.81 | 0.050 | µg/L | 1.00 | | 80.7 | 40-140 | | | |
| Heptachlor [2C] | 0.81 | 0.050 | µg/L | 1.00 | | 81.5 | 40-140 | | | |
| Heptachlor Epoxide | 0.84 | 0.050 | µg/L | 1.00 | | 84.1 | 40-140 | | | |
| Heptachlor Epoxide [2C] | 0.85 | 0.050 | µg/L | 1.00 | | 84.7 | 40-140 | | | |
| Hexachlorobenzene | 0.94 | 0.050 | µg/L | 1.00 | | 93.7 | 40-140 | | | |
| Hexachlorobenzene [2C] | 0.97 | 0.050 | µg/L | 1.00 | | 96.7 | 40-140 | | | |
| Methoxychlor | 0.88 | 0.50 | µg/L | 1.00 | | 88.2 | 40-140 | | | |
| Methoxychlor [2C] | 0.91 | 0.50 | µg/L | 1.00 | | 91.1 | 40-140 | | | |
| Surrogate: Decachlorobiphenyl | *1.42* | | µg/L | 2.00 | | 71.0 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.83* | | µg/L | 2.00 | | 91.6 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.49* | | µg/L | 2.00 | | 74.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.49* | | µg/L | 2.00 | | 74.3 | 30-150 | | | |

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**QUALITY CONTROL**

**Organochloride Pesticides by GC/ECD - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228994 - SW-846 3510C** | | | | | | | | | | |
| **LCS Dup (B228994-BSD1)** | | | | Prepared: 04/24/19 Analyzed: 04/25/19 | | | | | | |
| alpha-Chlordane | 0.90 | 0.050 | µg/L | 1.00 | | 90.2 | 0-200 | 5.11 | | |
| alpha-Chlordane [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 92.1 | 0-200 | 5.12 | | |
| gamma-Chlordane | 0.90 | 0.050 | µg/L | 1.00 | | 89.7 | 0-200 | 5.14 | | |
| gamma-Chlordane [2C] | 0.93 | 0.050 | µg/L | 1.00 | | 92.6 | 0-200 | 5.12 | | |
| Alachlor | 0.85 | 0.20 | µg/L | 1.00 | | 85.0 | 40-140 | 5.93 | 20 | |
| Alachlor [2C] | 0.86 | 0.20 | µg/L | 1.00 | | 86.0 | 40-140 | 5.59 | 20 | |
| Aldrin | 0.89 | 0.050 | µg/L | 1.00 | | 89.2 | 40-140 | 4.10 | 20 | |
| Aldrin [2C] | 0.89 | 0.050 | µg/L | 1.00 | | 88.8 | 40-140 | 4.02 | 20 | |
| alpha-BHC | 0.88 | 0.050 | µg/L | 1.00 | | 88.1 | 40-140 | 4.44 | 20 | |
| alpha-BHC [2C] | 0.89 | 0.050 | µg/L | 1.00 | | 89.1 | 40-140 | 3.92 | 20 | |
| beta-BHC | 0.91 | 0.050 | µg/L | 1.00 | | 90.6 | 40-140 | 5.75 | 20 | |
| beta-BHC [2C] | 0.99 | 0.050 | µg/L | 1.00 | | 98.7 | 40-140 | 6.71 | 20 | |
| delta-BHC | 0.93 | 0.050 | µg/L | 1.00 | | 93.4 | 40-140 | 7.30 | 20 | |
| delta-BHC [2C] | 0.92 | 0.050 | µg/L | 1.00 | | 92.2 | 40-140 | 6.56 | 20 | |
| gamma-BHC (Lindane) | 0.89 | 0.030 | µg/L | 1.00 | | 88.5 | 40-140 | 5.00 | 20 | |
| gamma-BHC (Lindane) [2C] | 0.89 | 0.030 | µg/L | 1.00 | | 88.8 | 40-140 | 4.75 | 20 | |
| 4,4'-DDD | 0.98 | 0.040 | µg/L | 1.00 | | 97.8 | 40-140 | 5.85 | 20 | |
| 4,4'-DDD [2C] | 0.96 | 0.040 | µg/L | 1.00 | | 95.9 | 40-140 | 5.88 | 20 | |
| 4,4'-DDE | 0.96 | 0.040 | µg/L | 1.00 | | 96.4 | 40-140 | 4.39 | 20 | |
| 4,4'-DDE [2C] | 0.95 | 0.040 | µg/L | 1.00 | | 94.8 | 40-140 | 4.61 | 20 | |
| 4,4'-DDT | 0.91 | 0.040 | µg/L | 1.00 | | 90.9 | 40-140 | 5.68 | 20 | |
| 4,4'-DDT [2C] | 0.93 | 0.040 | µg/L | 1.00 | | 93.0 | 40-140 | 5.64 | 20 | |
| Dieldrin | 0.89 | 0.0020 | µg/L | 1.00 | | 89.1 | 40-140 | 5.14 | 20 | |
| Dieldrin [2C] | 0.87 | 0.0020 | µg/L | 1.00 | | 87.1 | 40-140 | 5.47 | 20 | |
| Endosulfan I | 0.88 | 0.050 | µg/L | 1.00 | | 88.3 | 40-140 | 5.29 | 20 | |
| Endosulfan I [2C] | 0.91 | 0.050 | µg/L | 1.00 | | 90.8 | 40-140 | 5.17 | 20 | |
| Endosulfan II | 0.92 | 0.080 | µg/L | 1.00 | | 91.8 | 40-140 | 6.45 | 20 | |
| Endosulfan II [2C] | 0.94 | 0.080 | µg/L | 1.00 | | 94.0 | 40-140 | 6.49 | 20 | |
| Endosulfan Sulfate | 0.94 | 0.080 | µg/L | 1.00 | | 94.3 | 40-140 | 7.75 | 20 | |
| Endosulfan Sulfate [2C] | 0.93 | 0.080 | µg/L | 1.00 | | 92.7 | 40-140 | 7.21 | 20 | |
| Endrin | 0.91 | 0.080 | µg/L | 1.00 | | 91.2 | 40-140 | 5.29 | 20 | |
| Endrin [2C] | 0.92 | 0.080 | µg/L | 1.00 | | 92.1 | 40-140 | 5.25 | 20 | |
| Endrin Aldehyde | 0.89 | 0.080 | µg/L | 1.00 | | 89.3 | 40-140 | 8.91 | 20 | |
| Endrin Aldehyde [2C] | 0.92 | 0.080 | µg/L | 1.00 | | 91.8 | 40-140 | 8.83 | 20 | |
| Endrin Ketone | 0.95 | 0.080 | µg/L | 1.00 | | 95.5 | 40-140 | 6.90 | 20 | |
| Endrin Ketone [2C] | 0.97 | 0.080 | µg/L | 1.00 | | 96.8 | 40-140 | 6.52 | 20 | |
| Heptachlor | 0.84 | 0.050 | µg/L | 1.00 | | 84.4 | 40-140 | 4.43 | 20 | |
| Heptachlor [2C] | 0.85 | 0.050 | µg/L | 1.00 | | 85.2 | 40-140 | 4.41 | 20 | |
| Heptachlor Epoxide | 0.88 | 0.050 | µg/L | 1.00 | | 88.4 | 40-140 | 4.98 | 20 | |
| Heptachlor Epoxide [2C] | 0.89 | 0.050 | µg/L | 1.00 | | 89.0 | 40-140 | 4.92 | 20 | |
| Hexachlorobenzene | 0.98 | 0.050 | µg/L | 1.00 | | 97.8 | 40-140 | 4.33 | 20 | |
| Hexachlorobenzene [2C] | 1.0 | 0.050 | µg/L | 1.00 | | 100 | 40-140 | 3.63 | 20 | |
| Methoxychlor | 0.94 | 0.50 | µg/L | 1.00 | | 94.1 | 40-140 | 6.52 | 20 | |
| Methoxychlor [2C] | 0.97 | 0.50 | µg/L | 1.00 | | 97.1 | 40-140 | 6.39 | 20 | |
| Surrogate: Decachlorobiphenyl | *1.45* | | µg/L | 2.00 | | 72.5 | 30-150 | | | |
| Surrogate: Decachlorobiphenyl [2C] | *1.91* | | µg/L | 2.00 | | 95.5 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene | *1.53* | | µg/L | 2.00 | | 76.4 | 30-150 | | | |
| Surrogate: Tetrachloro-m-xylene [2C] | *1.52* | | µg/L | 2.00 | | 76.0 | 30-150 | | | |

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**QUALITY CONTROL**

**Petroleum Hydrocarbons Analyses - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228884 - SW-846 3510C** | | | | | | | | | | | |
| **Blank (B228884-BLK1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| CT ETPH | ND | 0.15 | mg/L | | | | | | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0754* | | mg/L | 0.100 | | 75.4 | | 50-150 | | | |
| **LCS (B228884-BS1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| CT ETPH | 0.638 | 0.15 | mg/L | 1.00 | | 63.8 | | 60-120 | | | |
| Surrogate: 2-Fluorobiphenyl | *0.0788* | | mg/L | 0.100 | | 78.8 | | 50-150 | | | |
| **LCS Dup (B228884-BSD1)** | | | | Prepared: 04/23/19 Analyzed: 04/24/19 | | | | | | | |
| **CT ETPH** | 0.568 | 0.15 | mg/L | 1.00 | | **56.8** | * | 60-120 | 11.6 | 30 | L-07 |
| Surrogate: 2-Fluorobiphenyl | *0.0666* | | mg/L | 0.100 | | 66.6 | | 50-150 | | | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228805 - SW-846 3005A** | | | | | | | | | | |
| **Blank (B228805-BLK1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Antimony | ND | 1.0 | µg/L | | | | | | | |
| Arsenic | ND | 0.40 | µg/L | | | | | | | |
| Barium | ND | 10 | µg/L | | | | | | | |
| Beryllium | ND | 0.40 | µg/L | | | | | | | |
| Cadmium | ND | 0.50 | µg/L | | | | | | | |
| Chromium | ND | 1.0 | µg/L | | | | | | | |
| Copper | ND | 5.0 | µg/L | | | | | | | |
| Lead | ND | 1.0 | µg/L | | | | | | | |
| Nickel | ND | 5.0 | µg/L | | | | | | | |
| Selenium | ND | 5.0 | µg/L | | | | | | | |
| Silver | ND | 0.50 | µg/L | | | | | | | |
| Thallium | ND | 0.20 | µg/L | | | | | | | |
| Vanadium | ND | 5.0 | µg/L | | | | | | | |
| Zinc | ND | 10 | µg/L | | | | | | | |
| **LCS (B228805-BS1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Antimony | 503 | 10 | µg/L | 500 | | 101 | 80-120 | | | |
| Arsenic | 497 | 4.0 | µg/L | 500 | | 99.5 | 80-120 | | | |
| Barium | 492 | 100 | µg/L | 500 | | 98.5 | 80-120 | | | |
| Beryllium | 502 | 4.0 | µg/L | 500 | | 100 | 80-120 | | | |
| Cadmium | 494 | 5.0 | µg/L | 500 | | 98.8 | 80-120 | | | |
| Chromium | 483 | 10 | µg/L | 500 | | 96.6 | 80-120 | | | |
| Copper | 970 | 50 | µg/L | 1000 | | 97.0 | 80-120 | | | |
| Lead | 496 | 10 | µg/L | 500 | | 99.3 | 80-120 | | | |
| Nickel | 499 | 50 | µg/L | 500 | | 99.8 | 80-120 | | | |
| Selenium | 481 | 50 | µg/L | 500 | | 96.2 | 80-120 | | | |
| Silver | 488 | 5.0 | µg/L | 500 | | 97.5 | 80-120 | | | |
| Thallium | 487 | 2.0 | µg/L | 500 | | 97.4 | 80-120 | | | |
| Vanadium | 519 | 50 | µg/L | 500 | | 104 | 80-120 | | | |
| Zinc | 965 | 100 | µg/L | 1000 | | 96.5 | 80-120 | | | |
| **LCS Dup (B228805-BSD1)** | | | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Antimony | 505 | 10 | µg/L | 500 | | 101 | 80-120 | 0.388 | 20 | |
| Arsenic | 504 | 4.0 | µg/L | 500 | | 101 | 80-120 | 1.23 | 20 | |
| Barium | 489 | 100 | µg/L | 500 | | 97.8 | 80-120 | 0.708 | 20 | |
| Beryllium | 512 | 4.0 | µg/L | 500 | | 102 | 80-120 | 2.06 | 20 | |
| Cadmium | 497 | 5.0 | µg/L | 500 | | 99.3 | 80-120 | 0.598 | 20 | |
| Chromium | 499 | 10 | µg/L | 500 | | 99.7 | 80-120 | 3.19 | 20 | |
| Copper | 994 | 50 | µg/L | 1000 | | 99.4 | 80-120 | 2.44 | 20 | |
| Lead | 494 | 10 | µg/L | 500 | | 98.8 | 80-120 | 0.469 | 20 | |
| Nickel | 508 | 50 | µg/L | 500 | | 102 | 80-120 | 1.81 | 20 | |
| Selenium | 490 | 50 | µg/L | 500 | | 98.0 | 80-120 | 1.88 | 20 | |
| Silver | 492 | 5.0 | µg/L | 500 | | 98.3 | 80-120 | 0.823 | 20 | |
| Thallium | 488 | 2.0 | µg/L | 500 | | 97.6 | 80-120 | 0.149 | 20 | |
| Vanadium | 526 | 50 | µg/L | 500 | | 105 | 80-120 | 1.39 | 20 | |
| Zinc | 982 | 100 | µg/L | 1000 | | 98.2 | 80-120 | 1.81 | 20 | |

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**QUALITY CONTROL**

**Metals Analyses (Total) - Quality Control**

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| **Batch B228805 - SW-846 3005A** | | | | | | | | | | |
| **Duplicate (B228805-DUP1)** | | **Source: 19D0928-01** | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Antimony | ND | 1.0 | µg/L | | ND | | | NC | 20 | |
| Arsenic | 0.619 | 0.40 | µg/L | | 0.683 | | | 9.72 | 20 | |
| Barium | 196 | 10 | µg/L | | 195 | | | 0.639 | 20 | |
| Beryllium | ND | 0.40 | µg/L | | ND | | | NC | 20 | |
| Cadmium | ND | 0.50 | µg/L | | ND | | | NC | 20 | |
| Chromium | 1.47 | 1.0 | µg/L | | 1.56 | | | 5.65 | 20 | |
| Copper | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Lead | 1.07 | 1.0 | µg/L | | 1.07 | | | 0.508 | 20 | |
| Nickel | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Selenium | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Silver | ND | 0.50 | µg/L | | ND | | | NC | 20 | |
| Thallium | ND | 0.20 | µg/L | | ND | | | NC | 20 | |
| Vanadium | ND | 5.0 | µg/L | | ND | | | NC | 20 | |
| Zinc | ND | 10 | µg/L | | ND | | | NC | 20 | |
| **Matrix Spike (B228805-MS1)** | | **Source: 19D0928-01** | | Prepared: 04/22/19 Analyzed: 04/23/19 | | | | | | |
| Antimony | 492 | 10 | µg/L | 500 | ND | 98.4 | 75-125 | | | |
| Arsenic | 488 | 4.0 | µg/L | 500 | ND | 97.6 | 75-125 | | | |
| Barium | 672 | 100 | µg/L | 500 | 195 | 95.4 | 75-125 | | | |
| Beryllium | 497 | 4.0 | µg/L | 500 | ND | 99.5 | 75-125 | | | |
| Cadmium | 486 | 5.0 | µg/L | 500 | ND | 97.1 | 75-125 | | | |
| Chromium | 478 | 10 | µg/L | 500 | ND | 95.7 | 75-125 | | | |
| Copper | 947 | 50 | µg/L | 1000 | ND | 94.7 | 75-125 | | | |
| Lead | 489 | 10 | µg/L | 500 | ND | 97.7 | 75-125 | | | |
| Nickel | 488 | 50 | µg/L | 500 | ND | 97.6 | 75-125 | | | |
| Selenium | 471 | 50 | µg/L | 500 | ND | 94.2 | 75-125 | | | |
| Silver | 412 | 5.0 | µg/L | 500 | ND | 82.5 | 75-125 | | | |
| Thallium | 483 | 2.0 | µg/L | 500 | ND | 96.6 | 75-125 | | | |
| Vanadium | 520 | 50 | µg/L | 500 | ND | 104 | 75-125 | | | |
| Zinc | 952 | 100 | µg/L | 1000 | ND | 95.2 | 75-125 | | | |
| **Batch B228930 - SW-846 7470A Prep** | | | | | | | | | | |
| **Blank (B228930-BLK1)** | | | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | ND | 0.00010 | mg/L | | | | | | | |
| **LCS (B228930-BS1)** | | | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | 0.00391 | 0.00010 | mg/L | 0.00400 | | 97.8 | 80-120 | | | |
| **LCS Dup (B228930-BSD1)** | | | | Prepared & Analyzed: 04/25/19 | | | | | | |
| Mercury | 0.00411 | 0.00010 | mg/L | 0.00400 | | 103 | 80-120 | 5.01 | 20 | |

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BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM1** **Analyzed:** **04/25/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 6.43 |
| Endrin [1] | 5.07 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.66 |
| Endrin [2] | 5.83 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM2** **Analyzed:** **04/25/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 6.15 |
| Endrin [1] | 4.87 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.46 |
| Endrin [2] | 5.83 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM3** **Analyzed:** **04/25/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 5.71 |
| Endrin [1] | 4.02 |

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BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM3** **Analyzed:** **04/25/2019**

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 6.93 |
| Endrin [2] | 4.75 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM4** **Analyzed:** **04/26/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 6.33 |
| Endrin [1] | 5.04 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 7.72 |
| Endrin [2] | 5.82 |

BREAKDOWN REPORT

**Lab Sample ID:** **S035135-PEM6** **Analyzed:** **04/26/2019**

**Column Number:** **1**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [1] | 4.32 |
| Endrin [1] | 4.04 |

**Column Number:** **2**

| Analyte | % Breakdown |
|---|---|
| 4,4'-DDT [2] | 5.50 |
| Endrin [2] | 5.20 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS**

Lab Sample ID: B228994-BS1 Date(s) Analyzed: 04/25/2019 04/25/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.922 | 6.892 | 6.952 | 0.92 | |
| | 2 | 6.836 | 6.805 | 6.865 | 0.90 | 2.2 |
| 4,4'-DDE | 1 | 6.498 | 6.468 | 6.528 | 0.92 | |
| | 2 | 6.431 | 6.400 | 6.460 | 0.91 | 1.1 |
| 4,4'-DDT | 1 | 7.128 | 7.098 | 7.158 | 0.86 | |
| | 2 | 7.063 | 7.033 | 7.093 | 0.88 | 2.3 |
| Alachlor | 1 | 5.963 | 5.933 | 5.993 | 0.80 | |
| | 2 | 5.680 | 5.651 | 5.711 | 0.81 | 1.2 |
| Aldrin | 1 | 5.862 | 5.832 | 5.892 | 0.86 | |
| | 2 | 5.723 | 5.693 | 5.753 | 0.85 | 1.2 |
| alpha-BHC | 1 | 5.205 | 5.175 | 5.235 | 0.84 | |
| | 2 | 5.103 | 5.073 | 5.133 | 0.86 | 2.4 |
| alpha-Chlordane | 1 | 6.435 | 6.405 | 6.465 | 0.86 | |
| | 2 | 6.300 | 6.269 | 6.329 | 0.87 | 1.2 |
| beta-BHC | 1 | 5.442 | 5.412 | 5.472 | 0.86 | |
| | 2 | 5.343 | 5.313 | 5.373 | 0.92 | 6.7 |
| delta-BHC | 1 | 5.548 | 5.517 | 5.577 | 0.87 | |
| | 2 | 5.504 | 5.474 | 5.534 | 0.86 | 1.2 |
| Dieldrin | 1 | 6.694 | 6.664 | 6.724 | 0.85 | |
| | 2 | 6.516 | 6.486 | 6.546 | 0.82 | 3.6 |
| Endosulfan I | 1 | 6.526 | 6.496 | 6.556 | 0.84 | |
| | 2 | 6.330 | 6.300 | 6.360 | 0.86 | 2.4 |
| Endosulfan II | 1 | 7.021 | 6.990 | 7.050 | 0.86 | |
| | 2 | 6.876 | 6.846 | 6.906 | 0.88 | 2.3 |
| Endosulfan Sulfate | 1 | 7.662 | 7.632 | 7.692 | 0.87 | |
| | 2 | 7.335 | 7.305 | 7.365 | 0.86 | 1.2 |
| Endrin | 1 | 6.857 | 6.827 | 6.887 | 0.87 | |
| | 2 | 6.722 | 6.692 | 6.752 | 0.87 | 0.0 |
| Endrin Aldehyde | 1 | 7.331 | 7.301 | 7.361 | 0.82 | |
| | 2 | 7.125 | 7.095 | 7.155 | 0.84 | 2.4 |
| Endrin Ketone | 1 | 7.873 | 7.843 | 7.903 | 0.89 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

LCS

Lab Sample ID: B228994-BS1 Date(s) Analyzed: 04/25/2019 04/25/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.725 | 7.695 | 7.755 | 0.91 | 2.2 |
| gamma-BHC (Lindane) | 1 | 5.388 | 5.359 | 5.419 | 0.84 | |
| | 2 | 5.292 | 5.262 | 5.322 | 0.85 | 1.2 |
| gamma-Chlordane | 1 | 6.345 | 6.314 | 6.374 | 0.85 | |
| | 2 | 6.203 | 6.173 | 6.233 | 0.88 | 3.5 |
| Heptachlor | 1 | 5.675 | 5.644 | 5.704 | 0.81 | |
| | 2 | 5.537 | 5.507 | 5.567 | 0.81 | 0.0 |
| Heptachlor Epoxide | 1 | 6.259 | 6.229 | 6.289 | 0.84 | |
| | 2 | 6.078 | 6.048 | 6.108 | 0.85 | 1.2 |
| Hexachlorobenzene | 1 | 5.107 | 5.077 | 5.137 | 0.94 | |
| | 2 | 5.028 | 4.998 | 5.058 | 0.97 | 3.1 |
| Methoxychlor | 1 | 7.511 | 7.481 | 7.541 | 0.88 | |
| | 2 | 7.602 | 7.572 | 7.632 | 0.91 | 3.4 |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B228994-BSD1 Date(s) Analyzed: 04/25/2019 04/25/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| 4,4'-DDD | 1 | 6.922 | 6.892 | 6.952 | 0.98 | |
| | 2 | 6.836 | 6.805 | 6.865 | 0.96 | 2.1 |
| 4,4'-DDE | 1 | 6.498 | 6.468 | 6.528 | 0.96 | |
| | 2 | 6.430 | 6.400 | 6.460 | 0.95 | 1.1 |
| 4,4'-DDT | 1 | 7.128 | 7.098 | 7.158 | 0.91 | |
| | 2 | 7.063 | 7.033 | 7.093 | 0.93 | 2.2 |
| Alachlor | 1 | 5.963 | 5.933 | 5.993 | 0.85 | |
| | 2 | 5.680 | 5.651 | 5.711 | 0.86 | 1.2 |
| Aldrin | 1 | 5.862 | 5.832 | 5.892 | 0.89 | |
| | 2 | 5.723 | 5.693 | 5.753 | 0.89 | 0.0 |
| alpha-BHC | 1 | 5.205 | 5.175 | 5.235 | 0.88 | |
| | 2 | 5.103 | 5.073 | 5.133 | 0.89 | 1.1 |
| alpha-Chlordane | 1 | 6.435 | 6.405 | 6.465 | 0.90 | |
| | 2 | 6.299 | 6.269 | 6.329 | 0.92 | 2.2 |
| beta-BHC | 1 | 5.442 | 5.412 | 5.472 | 0.91 | |
| | 2 | 5.343 | 5.313 | 5.373 | 0.99 | 8.4 |
| delta-BHC | 1 | 5.547 | 5.517 | 5.577 | 0.93 | |
| | 2 | 5.504 | 5.474 | 5.534 | 0.92 | 1.1 |
| Dieldrin | 1 | 6.694 | 6.664 | 6.724 | 0.89 | |
| | 2 | 6.515 | 6.486 | 6.546 | 0.87 | 2.3 |
| Endosulfan I | 1 | 6.525 | 6.496 | 6.556 | 0.88 | |
| | 2 | 6.330 | 6.300 | 6.360 | 0.91 | 3.4 |
| Endosulfan II | 1 | 7.020 | 6.990 | 7.050 | 0.92 | |
| | 2 | 6.876 | 6.846 | 6.906 | 0.94 | 2.2 |
| Endosulfan Sulfate | 1 | 7.663 | 7.632 | 7.692 | 0.94 | |
| | 2 | 7.334 | 7.305 | 7.365 | 0.93 | 1.1 |
| Endrin | 1 | 6.857 | 6.827 | 6.887 | 0.91 | |
| | 2 | 6.721 | 6.692 | 6.752 | 0.92 | 1.1 |
| Endrin Aldehyde | 1 | 7.331 | 7.301 | 7.361 | 0.89 | |
| | 2 | 7.125 | 7.095 | 7.155 | 0.92 | 3.3 |
| Endrin Ketone | 1 | 7.873 | 7.843 | 7.903 | 0.95 | |

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# IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

*SW-846 8081B*

**LCS Dup**

Lab Sample ID: B228994-BSD1 Date(s) Analyzed: 04/25/2019 04/25/2019

Instrument ID (1): ECD2 Instrument ID (2): ECD2

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

| ANALYTE | COL | RT | RT WINDOW | | CONCENTRATION | %RPD |
|---|---|---|---|---|---|---|
| | | | FROM | TO | | |
| | 2 | 7.725 | 7.695 | 7.755 | 0.97 | 1.0 |
| gamma-BHC (Lindane) | 1 | 5.388 | 5.359 | 5.419 | 0.89 | |
| | 2 | 5.291 | 5.262 | 5.322 | 0.89 | 0.0 |
| gamma-Chlordane | 1 | 6.344 | 6.314 | 6.374 | 0.90 | |
| | 2 | 6.203 | 6.173 | 6.233 | 0.93 | 3.3 |
| Heptachlor | 1 | 5.675 | 5.644 | 5.704 | 0.84 | |
| | 2 | 5.536 | 5.507 | 5.567 | 0.85 | 1.2 |
| Heptachlor Epoxide | 1 | 6.259 | 6.229 | 6.289 | 0.88 | |
| | 2 | 6.078 | 6.048 | 6.108 | 0.89 | 1.1 |
| Hexachlorobenzene | 1 | 5.107 | 5.077 | 5.137 | 0.98 | |
| | 2 | 5.028 | 4.998 | 5.058 | 1.0 | 2.0 |
| Methoxychlor | 1 | 7.511 | 7.481 | 7.541 | 0.94 | |
| | 2 | 7.601 | 7.572 | 7.632 | 0.97 | 3.1 |

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**FLAG/QUALIFIER SUMMARY**

| | |
|---|---|
| * | QC result is outside of established limits. |
| † | Wide recovery limits established for difficult compound. |
| ‡ | Wide RPD limits established for difficult compound. |
| # | Data exceeded client recommended or regulatory level |
| ND | Not Detected |
| RL | Reporting Limit is at the level of quantitation (LOQ) |
| DL | Detection Limit is the lower limit of detection determined by the MDL study |
| MCL | Maximum Contaminant Level |
| | Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded. |
| | No results have been blank subtracted unless specified in the case narrative section. |
| L-07 | Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria. |
| V-06 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound. |
| V-20 | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |
| V-34 | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. |
| V-36 | Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***CTDEP ETPH in Soil*** | |
| CT ETPH | CT |
| ***CTDEP ETPH in Water*** | |
| CT ETPH | CT |
| ***SW-846 6020B in Water*** | |
| Antimony | CT,NH,NY,ME,VA,NC |
| Arsenic | CT,NH,NY,ME,VA,NC |
| Barium | CT,NH,NY,ME,VA,NC |
| Beryllium | CT,NH,NY,ME,VA,NC |
| Cadmium | CT,NH,NY,RI,ME,VA,NC |
| Chromium | CT,NH,NY,ME,VA,NC |
| Copper | CT,NH,NY,ME,VA,NC |
| Lead | CT,NH,NY,ME,VA,NC |
| Nickel | CT,NH,NY,ME,VA,NC |
| Selenium | CT,NH,NY,ME,VA,NC |
| Silver | CT,NH,NY,ME,VA,NC |
| Thallium | CT,NH,NY,ME,VA,NC |
| Vanadium | CT,NH,NY,ME,VA,NC |
| Zinc | CT,NH,NY,ME,VA,NC |
| ***SW-846 7470A in Water*** | |
| Mercury | CT,NH,NY,NC,ME,VA |
| ***SW-846 8081B in Water*** | |
| Alachlor | NC |
| Alachlor [2C] | NC |
| Aldrin | CT,NH,NY,ME,NC,VA |
| Aldrin [2C] | CT,NH,NY,ME,NC,VA |
| alpha-BHC | CT,NH,NY,ME,NC,VA |
| alpha-BHC [2C] | CT,NH,NY,ME,NC,VA |
| beta-BHC | CT,NH,NY,ME,NC,VA |
| beta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| delta-BHC | CT,NH,NY,ME,NC,VA |
| delta-BHC [2C] | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) | CT,NH,NY,ME,NC,VA |
| gamma-BHC (Lindane) [2C] | CT,NH,NY,ME,NC,VA |
| Chlordane | CT,NH,NY,ME,NC,VA |
| Chlordane [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD | CT,NH,NY,ME,NC,VA |
| 4,4'-DDD [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE | CT,NH,NY,ME,NC,VA |
| 4,4'-DDE [2C] | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT | CT,NH,NY,ME,NC,VA |
| 4,4'-DDT [2C] | CT,NH,NY,ME,NC,VA |
| Dieldrin | CT,NH,NY,ME,NC,VA |
| Dieldrin [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan I | CT,NH,NY,ME,NC,VA |
| Endosulfan I [2C] | CT,NH,NY,ME,NC,VA |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8081B in Water*** | |
| Endosulfan II | CT,NH,NY,ME,NC,VA |
| Endosulfan II [2C] | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate | CT,NH,NY,ME,NC,VA |
| Endosulfan Sulfate [2C] | CT,NH,NY,ME,NC,VA |
| Endrin | CT,NH,NY,ME,NC,VA |
| Endrin [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde | CT,NH,NY,ME,NC,VA |
| Endrin Aldehyde [2C] | CT,NH,NY,ME,NC,VA |
| Endrin Ketone | NC |
| Endrin Ketone [2C] | NC |
| Heptachlor | CT,NH,NY,ME,NC,VA |
| Heptachlor [2C] | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide | CT,NH,NY,ME,NC,VA |
| Heptachlor Epoxide [2C] | CT,NH,NY,ME,NC,VA |
| Hexachlorobenzene | NC |
| Hexachlorobenzene [2C] | NC |
| Methoxychlor | CT,NH,NY,ME,NC,VA |
| Methoxychlor [2C] | CT,NH,NY,ME,NC,VA |
| Toxaphene | CT,NH,NY,ME,NC,VA |
| Toxaphene [2C] | CT,NH,NY,ME,NC,VA |
| ***SW-846 8260C in Water*** | |
| Acetone | CT,NH,NY,ME |
| Acrylonitrile | CT,NY,ME |
| Benzene | CT,NH,NY,ME |
| Bromobenzene | NY |
| Bromodichloromethane | CT,NH,NY,ME |
| Bromoform | CT,NH,NY,ME |
| Bromomethane | CT,NH,NY,ME |
| 2-Butanone (MEK) | CT,NH,NY,ME |
| n-Butylbenzene | NY,ME |
| sec-Butylbenzene | NY,ME |
| tert-Butylbenzene | NY,ME |
| Carbon Disulfide | CT,NH,NY,ME |
| Carbon Tetrachloride | CT,NH,NY,ME |
| Chlorobenzene | CT,NH,NY,ME |
| Chlorodibromomethane | CT,NH,NY,ME |
| Chloroethane | CT,NH,NY,ME |
| Chloroform | CT,NH,NY,ME |
| Chloromethane | CT,NH,NY,ME |
| 2-Chlorotoluene | NY,ME |
| 4-Chlorotoluene | NY,ME |
| 1,2-Dibromo-3-chloropropane (DBCP) | NY |
| 1,2-Dibromoethane (EDB) | NY |
| Dibromomethane | NH,NY,ME |
| 1,2-Dichlorobenzene | CT,NY,ME |
| 1,3-Dichlorobenzene | CT,NH,NY,ME |

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**CERTIFICATIONS**

**Certified Analyses included in this Report**

| Analyte | Certifications |
|---|---|
| ***SW-846 8260C in Water*** | |
| 1,4-Dichlorobenzene | CT,NH,NY,ME |
| trans-1,4-Dichloro-2-butene | NH,NY,ME |
| Dichlorodifluoromethane (Freon 12) | NH,NY,ME |
| 1,1-Dichloroethane | CT,NH,NY,ME |
| 1,2-Dichloroethane | CT,NH,NY,ME |
| 1,1-Dichloroethylene | CT,NH,NY,ME |
| cis-1,2-Dichloroethylene | NY,ME |
| trans-1,2-Dichloroethylene | CT,NH,NY,ME |
| 1,2-Dichloropropane | CT,NH,NY,ME |
| 1,3-Dichloropropane | NY,ME |
| 2,2-Dichloropropane | NH,NY,ME |
| 1,1-Dichloropropene | NH,NY,ME |
| cis-1,3-Dichloropropene | CT,NH,NY,ME |
| trans-1,3-Dichloropropene | CT,NH,NY,ME |
| Ethylbenzene | CT,NH,NY,ME |
| Hexachlorobutadiene | CT,NH,NY,ME |
| 2-Hexanone (MBK) | CT,NH,NY,ME |
| Isopropylbenzene (Cumene) | NY,ME |
| p-Isopropyltoluene (p-Cymene) | CT,NH,NY,ME |
| Methyl tert-Butyl Ether (MTBE) | CT,NH,NY,ME |
| Methylene Chloride | CT,NH,NY,ME |
| 4-Methyl-2-pentanone (MIBK) | CT,NH,NY,ME |
| Naphthalene | NH,NY,ME |
| n-Propylbenzene | CT,NH,NY,ME |
| Styrene | CT,NH,NY,ME |
| 1,1,1,2-Tetrachloroethane | CT,NH,NY,ME |
| 1,1,2,2-Tetrachloroethane | CT,NH,NY,ME |
| Tetrachloroethylene | CT,NH,NY,ME |
| Toluene | CT,NH,NY,ME |
| 1,2,3-Trichlorobenzene | NH,NY,ME |
| 1,2,4-Trichlorobenzene | CT,NH,NY,ME |
| 1,1,1-Trichloroethane | CT,NH,NY,ME |
| 1,1,2-Trichloroethane | CT,NH,NY,ME |
| Trichloroethylene | CT,NH,NY,ME |
| Trichlorofluoromethane (Freon 11) | CT,NH,NY,ME |
| 1,2,3-Trichloropropane | NH,NY,ME |
| 1,1,2-Trichloro-1,2,2-trifluoroethane (Freon 113) | NY |
| 1,2,4-Trimethylbenzene | NY,ME |
| 1,3,5-Trimethylbenzene | NY,ME |
| Vinyl Chloride | CT,NH,NY,ME |
| m+p Xylene | NH,NY,ME |
| o-Xylene | NH,NY,ME |

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The CON-TEST Environmental Laboratory operates under the following certifications and accreditations:

| Code | Description | Number | Expires |
|---|---|---|---|
| AIHA | AIHA-LAP, LLC - ISO17025:2005 | 100033 | 03/1/2020 |
| MA | Massachusetts DEP | M-MA100 | 06/30/2019 |
| CT | Connecticut Department of Publilc Health | PH-0567 | 09/30/2019 |
| NY | New York State Department of Health | 10899 NELAP | 04/1/2020 |
| NH-S | New Hampshire Environmental Lab | 2516 NELAP | 02/5/2020 |
| RI | Rhode Island Department of Health | LAO00112 | 12/30/2019 |
| NC | North Carolina Div. of Water Quality | 652 | 12/31/2019 |
| NJ | New Jersey DEP | MA007 NELAP | 06/30/2019 |
| FL | Florida Department of Health | E871027 NELAP | 06/30/2019 |
| VT | Vermont Department of Health Lead Laboratory | LL015036 | 07/30/2019 |
| ME | State of Maine | 2011028 | 06/9/2019 |
| VA | Commonwealth of Virginia | 460217 | 12/14/2019 |
| NH-P | New Hampshire Environmental Lab | 2557 NELAP | 09/6/2019 |
| VT-DW | Vermont Department of Health Drinking Water | VT-255716 | 06/12/2019 |
| NC-DW | North Carolina Department of Health | 25703 | 07/31/2019 |

ALB

**con-test** ANALYTICAL LABORATORY

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Email: info@contestlabs.com
www.contestlabs.com

# CHAIN OF CUSTODY RECORD

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028



Company Name: AECOM
Address: 500 Enterprise Drive, Suite 1A
Rocky Hill, CT 06067
Attention: Matt Rood
Project Location: Greenwich, CT
Sampled By: E. Doerfler / R. Bott

Telephone:
Project # 60432356
Client PO#

**DATA DELIVERY** (check all that apply)
○ FAX ◉ EMAIL ○ WEBSITE
Fax #
Email: matthew.rood@aecom.com, neil.flahive@aecom.com
Format: ◉ PDF ○ EXCEL ○ GIS
◉ OTHER EDD - Equis
○ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)
○ yes _____ proposal date

ANALYSIS REQUESTED

| Con-Test Lab ID (laboratory use only) | Client Sample ID / Description | Collection Beginning Date/Time | Collection Ending Date/Time | Composite | Grab | *Matrix Code | Conc Code | PCBs 680 | CT RSR Metals | PAHs (SIM) | CT ETPH | VOCs 8260 | Pesticide | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | 19 | 3 | ~~8~~ 6 | ~~8~~ 6 | ~~4~~ 14 | 2 | | | | | # of Containers |
| | | | | | | | | I | N | I | I | H | | | | | | ** Preservation |
| | | | | | | | | A | P | A | A | V | | | | | | ***Container Code |
| 1 | MW-U20-041719-1 | 4/17/19 | 0715 | | X | GW | U | X | X | | | X | | | | | | |
| 2 | MW-Y15-041719-1 | 4/17/19 | 0845 | | X | GW | U | X | X | X | X | X | | | | | | |
| 3 | MW-Y15D-041719-1 | 4/17/19 | 1010 | | X | GW | U | X | | | | | | | | | | |
| 4 | MW-Y9-041719-1 | 4/17/19 | 1114 | | X | GW | U | X | X | X | X | X | X | | | | | |
| 5 | MW-AL10-041719-1 | 4/17/19 | 1015 | | X | GW | U | X | | | | | | | | | | |
| 6 | MW-AE8-041719-1 | 4/17/19 | 1130 | | X | GW | U | X | X | X | X | X | | | | | | |
| 7 | MW-AP11-041719-1 | 4/17/19 | 1210 | | X | GW | U | X | | | | | | | | | | |
| 8 | MW-A630-041719-1 | 4/17/19 | 1345 | | X | GW | U | X | | | | | | | | | | |
| 9 | MW-AP10-041719-1 | 4/17/19 | 1340 | | X | GW | U | X | | | | | | | | | | |
| 10 | VOC Trip Blank | 4/17/19 | LAB | | | | | | | | | X | | | | | | |

Comments:
MW-AP11-041719-1 MS/MSD for PCBs.

Please use the following codes to let Con-Test know if a specific sample may be high in concentration in Matrix/Conc. Code Box:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

*Dissolved Metals*
○ Field Filtered
○ Lab to Filter

***Cont. Code:**
A=amber glass
G=glass
P=plastic
ST=sterile
V= vial
S=summa can
T=tedlar bag
O=Other

**Preservation
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium bisulfate
X = Na hydroxide
T = Na thiosulfate
O = Other _____

*Matrix Code:
GW= groundwater
WW= wastewater
DW= drinking water
A = air
S = soil/solid
SL = sludge
O = other _____

| Relinquished by: (signature) | Date/Time: |
|---|---|
| 4/17/19 | 1545 |
| Received by: (signature) 4/17/19 | Date/Time: 1545 |
| Relinquished by: (signature) 4/17/19 | Date/Time: 21 50 |
| Received by: (signature) 3.4, 4.8, 2.7 4/17/19 | Date/Time: 21:50 |

**Turnaround** ††
◉ 7-Day
☐ 10-Day
☐ Other ____
**RUSH** †
☐ †24-Hr ☐ †48-Hr
☐ †72-Hr ☐ †4-Day
† Require lab approval

**Detection Limit Requirements**
*Massachusetts:*
*Connecticut:* GWPC/SWPC
*Other:*

**Is your project MCP or RCP ?**
○ MCP Form Required
◉ RCP Form Required
○ MA State DW Form Required PWSID # _____

AIHA LAP, LLC ACCREDITED LABORATORY
ACCREDITED IN ACCORDANCE WITH nelac

**NELAC & AIHA-LAP, LLC Accredited**
**WBE/DBE Certified**

†† TURNAROUND TIME STARTS AT 9:00 A.M. THE DAY AFTER SAMPLE RECEIPT UNLESS THERE ARE QUESTIONS ON YOUR CHAIN. IF THIS FORM IS NOT FILLED OUT COMPLETELY OR IS INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

**PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT**



Table of Contents

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples_____

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

**Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False**

**Client** AECOM

**Received By** up Date 4/17/19 Time 21:50

How were the samples received? In Cooler T No Cooler ____ On Ice T No Ice ____

Direct from Sampling ____ Ambient ____ Melted Ice ____

By Gun # 5 Actual Temp - 3.4, 4.8, 2.7

Were samples within Temperature? 2-6°C T By Blank # ____ Actual Temp - ____

Was Custody Seal Intact? N/A Were Samples Tampered with? N/A

Was COC Relinquished ? T Does Chain Agree With Samples? T

Are there broken/leaking/loose caps on any samples? F

Is COC in ink/ Legible? T Were samples received within holding time? T

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

Are there Lab to Filters? F Who was notified? ____

Are there Rushes? F Who was notified? ____

Are there Short Holds? F Who was notified? ____

Is there enough Volume? T

Is there Headspace where applicable? F MS/MSD? T

Proper Media/Containers Used? T Is splitting samples required? F

Were trip blanks received? T On COC? T

Do all samples have the proper pH? Acid T<2 Base ____

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | 33 | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | 14 | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | 4 | 4oz Amb/Clear | |
| Bisulfate- | | Flashpoint | | Col./Bacteria | | 2oz Amb/Clear | |
| DI- | | Other Glass | | Other Plastic | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Unused Media**

| Vials | # | Containers: | # | | # | | # |
|---|---|---|---|---|---|---|---|
| Unp- | | 1 Liter Amb. | | 1 Liter Plastic | | 16 oz Amb. | |
| HCL- | | 500 mL Amb. | | 500 mL Plastic | | 8oz Amb/Clear | |
| Meoh- | | 250 mL Amb. | | 250 mL Plastic | | 4oz Amb/Clear | |
| Bisulfate- | | Col./Bacteria | | Flashpoint | | 2oz Amb/Clear | |
| DI- | | Other Plastic | | Other Glass | | Encore | |
| Thiosulfate- | | SOC Kit | | Plastic Bag | | Frozen: | |
| Sulfuric- | | Perchlorate | | Ziplock | | | |

**Comments:**

C:\MSDCHEM\4\DATA\D042419\D0424068.D

## CT ETPH DISCRIMINATION CHECK

| | |
|---|---|
| Data File Name | D0424068.D |
| Data File Path | C:\MSDCHEM\4\DATA\D042419\ |
| Operator | RMW |
| Date Acquired | 4/24/2019 22:12 |
| Acq. Method File | EPH11D.M |
| Sample Name | ETPH 1500 |
| Instrument Name | GCFID4 |

| Name | Ret Time | Target Response | Average Response | *%D+/-20 |
|---|---|---|---|---|
| C-9 | 1.60 | 8822217 | 9877225 | 11 |
| C-10 | 2.25 | 9171060 | 9877225 | 7 |
| C-12 | 3.20 | 9695402 | 9877225 | 2 |
| C-14 | 3.92 | 10138447 | 9877225 | -3 |
| C-16 | 4.54 | 10301965 | 9877225 | -4 |
| C-18 | 5.09 | 10116766 | 9877225 | -2 |
| C-20 | 5.71 | 10377122 | 9877225 | -5 |
| C-22 | 6.47 | 10541215 | 9877225 | -7 |
| C-24 | 7.31 | 9573826 | 9877225 | 3 |
| C-26 | 8.12 | 10430180 | 9877225 | -6 |
| C-28 | 8.87 | 10257287 | 9877225 | -4 |
| C-30 | 9.56 | 10171557 | 9877225 | -3 |
| C-32 | 10.20 | 9949509 | 9877225 | -1 |
| C-34 | 10.80 | 9440718 | 9877225 | 4 |
| C-36 | 11.40 | 9171102 | 9877225 | 7 |

**Samples**

19D0928-02
19D0928-04
19D0993-01
19D1008-01
19D1019-01

*One compound allowed %D</=50%

C:\MSDChem\2\DATA\B042519\B0425006.D

## CT ETPH Discrimination Check

Data File Name B0425006.D
Data File Path C:\MSDChem\2\DATA\B042519\
Operator RMW
Date Acquired 4/25/2019 11:47
Acq. Method File EPH04.M
Sample Name ETPH 1500
Instrument Name GCFID2

| Name | Ret Time | Target Response | Average Response | *%D+/-20 |
|---|---|---|---|---|
| n-Nonane | 1.74 | 9119329 | 9714678 | 6 |
| n-Decane | 2.34 | 9329592 | 9714678 | 4 |
| n-Dodecane | 3.26 | 9599897 | 9714678 | 1 |
| n-Tetradecane | 3.98 | 9907296 | 9714678 | -2 |
| n-Hexadecane | 4.59 | 10049923 | 9714678 | -3 |
| n-Octadecane | 5.15 | 9908238 | 9714678 | -2 |
| n-Eicosane | 5.79 | 10206115 | 9714678 | -5 |
| n-Docosane | 6.57 | 10424524 | 9714678 | -7 |
| n-Tetracosane | 7.42 | 9487775 | 9714678 | 2 |
| n-Hexacosane | 8.23 | 10301931 | 9714678 | -6 |
| n-Octacosane | 8.97 | 10036601 | 9714678 | -3 |
| n-Triacontane | 9.65 | 9852491 | 9714678 | -1 |
| n-Dotriacontane | 10.29 | 9587831 | 9714678 | 1 |
| n-Tetratriacontane | 10.89 | 9078218 | 9714678 | 7 |
| n-Hexatriacontane | 11.53 | 8830410 | 9714678 | 9 |

**Samples**
19D0928-06
19D0971-03
19D0971-07

*One compound allowed %D</=50

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

***Laboratory Name:*** Con-Test Analytical Laboratory

***Client:*** AECOM Environment - Rocky Hill, CT

***Project Location:*** Greenwich, CT

***Project Number:*** 19D0928

***Laboratory Sample ID(s):***
19D0928-01 thru 19D0928-10

***Sample Date(s):***
04/17/2019

*List RCP Methods Used:*

CTDEP ETPH, SW-846 6020B, SW-846 7470A, SW-846 8081B, SW-846 8260C, SW-846 8270D

| | | |
|---|---|---|
| **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 CTDEP 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 and EPH method conducted without significant modifications (see Section 11.3 of respective RCP methods)? | ☐ Yes ☐ No ☑ N/A |
| **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 ☐ N/A |
| **4** | Were all QA/QC performance criteria specified in the CTDEP Reasonable Confidence Protocol documents achieved? | ☐ Yes ☑ No |
| **5A** | Were reporting limits specified or referenced on the chain-of-custody? | ☑ Yes ☐ No |
| **5B** | Were these reporting limits met? | ☐ Yes ☑ No |
| **6** | For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents? | ☐ Yes ☑ No |
| **7** | Are project-specific matrix spikes and laboratory duplicates included in this 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.

Lisa A. Worthington

**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:** Lisa Worthington

**Position:** **Technical Representative**

**Printed Name:** **Lisa A. Worthington**

**Date:** **04/29/19**

**Name of Laboratory:** **Con-Test Analytical Laboratory**

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

# Appendix C – Data Usability Evaluation Worksheets

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18F1321
**Date Samples Collected:** 6/26/2018
**Number of Samples Collected**: 6
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.3°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not included in this sample set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. Analyte & Samples(s) Qualified:<br>Octachlorobiphenyls<br>S024974-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | MS/MSD not included in this sample set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18F1383
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 2
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.5°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not included in this sample set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | MS/MSD not included in this sample set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18F1384
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 9
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not included in this sample set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. Analyte & Samples(s) Qualified: Octachlorobiphenyls 18F1384-05[MW-AJB-062718-1], 18F1384-07[MW-AJBD-067218-1], 18F1384-09[MW-AE8-062718-1], S025035-CCV1, S025035-CCV2<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected |

| | | |
|---|---|---|
| | | since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Decachlorobiphenyl<br>S024999-CCV1, S024999-CCV2<br>Heptachlorobiphenyls<br>S024999-CCV1, S024999-CCV2<br>Hexachlorobiphenyls<br>S024999-CCV1, S024999-CCV2<br>Nonachlorobiphenyls<br>S024999-CCV1, S024999-CCV2<br>Octachlorobiphenyls<br>S024999-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40%<br>Lab limits for %R 0-200% | MS/MSD not included in this sample set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18F1460
**Date Samples Collected:** 6/27/2018 & 6/28/2018
**Number of Samples Collected**: 10
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.5/5.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | MW-S15-062818-1; 18F1460-08 and MW-S15-062818-2; 18F1460-09: RPD for Monochlorobiphenyls and Dichlorobiphenyls > 50%. Sample results for these analytes are considered estimated. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. Analyte & Samples(s) Qualified:<br>Octachlorobiphenyls<br>S024974-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established | Analyte is found in the associated laboratory blank as well as in the sample. Analyte & Samples(s) Qualified:<br>Monochlorobiphenyls<br>18F1460-01[MW-V18-062818-1], 18F1460-02[MW-T23- |

| | | |
|---|---|---|
| | limits. | 062818-1], 18F1460-03[MW-AH16R-062818-1], 18F1460-04[MW-AM16-062818-1], 18F1460-05[MW-AA12-062718-1], 18F1460-06[MW-P7-062818-1], 18F1460-07[MW-P11-062818-1], 18F1460-09[MW-S15-062818-2], B207059-BLK1, B207059-BS1,<br>B207059-BSD1, B207059-MS1, B207059-MSD1<br>Total Polychlorinated biphenyls<br>18F1460-01[MW-V18-062818-1], 18F1460-02[MW-T23-062818-1], 18F1460-03[MW-AH16R-062818-1], 18F1460-04[MW-AM16-062818-1], 18F1460-05[MW-AA12-062718-1], 18F1460-06[MW-P7-062818-1], 18F1460-07[MW-P11-062818-1], 18F1460-08[MW-S15-062818-1], 18F1460-09[MW-S15-062818-2]<br><br>Data is not affected by elevated level in laboratory blank since sample result is >10x level found in the blank. Analyte & Samples(s) Qualified:<br>Monochlorobiphenyls<br>18F1460-03[MW-AH16R-062818-1], 18F1460-05[MW-AA12-062718-1] |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40%<br>Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18F1461
**Date Samples Collected:** 6/28/2018
**Number of Samples Collected**: 2
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.3°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | MW-R20-062818-1; 18F1461-01 and MW-R20-062818-2; 18F1461-02: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. Analyte & Samples(s) Qualified:<br>Octachlorobiphenyls<br>S024974-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Analyte is found in the associated laboratory blank as well as in the sample. Analyte & Samples(s) Qualified:<br>Monochlorobiphenyls<br>B207059-BLK1, B207059-BS1, B207059-BSD1 |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | MS/MSD not analyzed in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18G0022
**Date Samples Collected:** 6/29/2018
**Number of Samples Collected**: 5
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.1°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the low side for this compound. Reported result is estimated. Analyte & Samples(s) Qualified:<br>Octachlorobiphenyls<br>S024974-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA78631
**Date Samples Collected:** 6/26/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 6010C/6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | 2.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicated not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | ICP Metals: Site specific MS/MSD not included in this data set. MS/MSD analyzed on a sample in a different data set from a different site.<br><br>ICPMS Metals: (Batch 436299 (CA78631)): Meets criteria. |
| **Quantitation Limits** | Dilutions | MW-Y15-062618-1; CA78631: Sample result for Thallium from 5x dilution.<br><br>MW-Y9-062618-1; CA78632: Sample result for Thallium from 5x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA78631
**Date Samples Collected:** 6/26/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 2.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicated not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | QC Batch 436527 (CA78631) (Samples: CA78631, CA78632) Mercury in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA78631
**Date Samples Collected:** 6/26/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicated not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set. MS/MSD analyzed on a sample in a different data set from a different site. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA79842
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 6010C/6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | 3.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicated not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | ICP Metals: Site specific MS/MSD not included in this data set. MS/MSD analyzed on a sample in a different data set from a different site.<br><br>ICPMS Metals: Batch 436299 (CA78631). Meets criteria. |
| **Quantitation Limits** | Dilutions | MW-AJ13-062718-1; CA79842: Sample result for Thallium from 5x dilution.<br><br>MW-AE8-062718-1; CA79843: Sample result for Thallium from 5x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA79842
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 3.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicated not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site specific MS/MSD not included in this data set. MS/MSD analyzed on a sample in a different data set from a different site. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA79842
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicated not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | Initial Calibration Verification (CHEM04/BNSIM_0702)<br>The following compounds had %RSDs >20%: Acenaphthylene 22% (20%), Phenanthrene 21% (20%) |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | MS/MSD analyzed on a sample in a different data set from the same site.<br>QC Batch 437014 (Samples: CA79842, CA79843)<br>The MS/MSD RPD exceeds the method criteria for one or more analytes, therefore there may be variability in the reported result. (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene) |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA80833
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 5
**Analysis:** SW846 6010C/6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | 3.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | MW-S15-062818-1; CA80836 and MW-S15-062818-2; CA80837: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | ICP & ICPMS Metals: MS/MSD analyzed on a sample in a different data set from the same site (Batch 436854 (CA81517) & Batch 436858 (CA81516)). Meets criteria. |
| **Quantitation Limits** | Dilutions | MW-AA12-062718-1; CA80833: Sample result for Thallium from 5x dilution.<br><br>MW-AA16R-062818-1; CA80834: Sample result for Thallium from 5x dilution.<br><br>MW-P7-062818-1; CA80835: Sample result for Thallium from 5x dilution.<br><br>MW-S15-062818-1; CA80836: Sample result for Thallium from 5x dilution.<br><br>MW-S15-062818-2; CA80837: Sample result for Thallium from 5x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA80833
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 5
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 3.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | MW-S15-062818-1; CA80836 and MW-S15-062818-2; CA80837: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Batch 436751 (CA80833): Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA80833
**Date Samples Collected:** 6/27/2018
**Number of Samples Collected**: 5
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | MW-S15-062818-1; CA80836 and MW-S15-062818-2; CA80837: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | Initial Calibration Verification (CHEM04/BNSIM_0702)<br>The following compounds had %RSDs >20%: Acenaphthylene 22% (20%), Phenanthrene 21% (20%) |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | MS/MSD analyzed on a sample in a different data set from the same site (Batch 437014 (CA81516)). |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA81516
**Date Samples Collected:** 6/29/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 6010C/6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | 5.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | ICP Metals: Batch 436854 (CA81517) & Batch 436857 (CA81516). Meets criteria.<br><br>ICPMS Metals: Batch 436858 (CA81516) & Batch 437128 (CA81517). Meets criteria. |
| **Quantitation Limits** | Dilutions | MW-28-062918-1; CA81516: Sample result for Thallium from 5x dilution.<br><br>MW-35-062918-1; CA81517: Sample result for Thallium from 5x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA81516
**Date Samples Collected:** 6/29/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 5.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Batch 437044 (CA81516) & Batch 437065 (CA81517): Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCA81516
**Date Samples Collected:** 6/29/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 5.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not included in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | QC Batch 437117 (Samples: CA81517)<br>The LCS and/or the LCSD recovery is below the method criteria. A low bias for these analytes is possible. (Acenaphthylene)<br>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. (Acenaphthylene) |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Batch 437014 (CA81516)<br>he MS/MSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in thesample(s) so no variability is suspected. (Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(ghi)perylene, Benzo(k)fluoranthene, Dibenz(a,h)anthracene, Indeno(1,2,3-cd)pyrene) |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18I1109
**Date Samples Collected:** 9/25/2018
**Number of Samples Collected**: 5
**Analysis:** EPA Method 680 Modified
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at 2.1°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | 18I1109-04; MW-S15-092518-1 and 18I1109-05; MW-S15-092518-2: RPD for Dichlorobiphenyls > 30%. Sample results for Dichlorobiphenyls are considered to be estimated. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications for decachlorobiphenyl – results are biased high. Affected samples include B213579-BS1, B213579-BSD1, S027931-CCV2.<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Decachlorobiphenyl<br>18I1109-01[MW-AA19-092518-1], 18I1109-02[MW-P7- |

| | | |
|---|---|---|
| | | 092518-1], 18I1109-03[MW-P11-092518-1], 18I1109-04[MW-S15-092518-1], 18I1109-05[MW-S15-092518-2], B213579-BLK1 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | N/A |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18I1195
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 10
**Analysis:** EPA Method 680 Modified
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at temperatures ranging between 2.9-3.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications for decachlorobiphenyl – results are biased high for this compound. Affected samples include B213579-BS1, B213579-BSD1.<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Decachlorobiphenyl |

| | | |
|---|---|---|
| | | 18I1195-01[MW-Y15D-092618-1], 18I1195-02[MW-AA12D-092618-1], 18I1195-03[MW-y9-092618-1], 18I1195-04[MW-Y15-092618-1],<br>18I1195-05[MW-Y9D-092618-1], 18I1195-06[MW-AE8-092618-1], 18I1195-07[MW-X17-092618-1], 18I1195-08[MW-V18-092618-1], 18I1195-09[MW-AL10-092618-1], 18I1195-10[MW-AP11-092618-1], B213579-BLK1<br>Nonachlorobiphenyls<br>18I1195-03[MW-y9-092618-1] |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate.<br><br>18I1195-03[MW-y9-092618-1]: Surrogate recovery (Tetrachloro-m-xylene) outside of control limits due to suspected sample matrix interference. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40%<br>Lab limits for %R 0-200% | N/A |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18I1258
**Date Samples Collected:** 9/27/2018
**Number of Samples Collected**: 11
**Analysis:** EPA Method 680 Modified
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at temperatures ranging from 3.0-5.3°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected in this data set. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications for decachlorobiphenyl – results are biased high. Affected samples include B213604-BS1, B213604-BSD1, S027931-CCV2.<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Decachlorobiphenyl<br>B213604-BLK1 |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | N/A |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18I1259
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 3
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at 5.3°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | 18I1259-01; UGF4-092618-1 and 18I1259-02; UGF4-092618-2: Monochlorobiphenyls and Dichlorobiphenyls RPDs > 30%. Sample results for these two compounds are considered to be estimated. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the high side for this compound. Affected compounds include B213579-BS1, B213579-BSD1. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | N/A |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18I1338
**Date Samples Collected:** 9/27-28/2018
**Number of Samples Collected**: 10 (including field duplicate)
**Analysis:** EPA Method 680 Modified
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at temperatures ranging from 4.5-5.2°C<br><br>The allowable hold time for the re-run of sample MW-T23-092818-1 was exceeded, however the analysis was performed before 2X the hold time. |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | 18I1338-04; MW-R20-092818-1 and field duplicate 18I1338-05; MW-R20-092818-2: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications for monochlorobiphenyls– results are biased low. Affected samples include 18I1338-01[MW-AJ19-092718-1], 18I1338-02[MW-AM21-092718-1], 18I1338-03[MW-Y26-092818-1], 18I1338-04[MW-R20-092818-1], 18I1338-05[MW-R20-092818-2], 18I1338-06[MW-L25-092818-1], 18I1338-07[MW-F35-092818-1], 18I1338-08[MW-28-092818-1], 18I1338-09[MW-T23-092818-1], 18I1338-10[MW-35-092818-1], B213992-BLK1, B213992-BS1, B213992-BSD1, |

| | | |
|---|---|---|
| | | B213992-MS1, B213992-MS2, B213992-MSD1, B213992-MSD2, S028143-CCV1, S028143-CCV2, S028145-CCV1, S028145-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate.<br><br>In initial analysis of MW-T23-092818-1 the standard surrogate recovery was outside of control limits, therefore the sample was reanalyzed. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB38518
**Date Samples Collected:** 9/25/2018
**Number of Samples Collected**: 3 (including field duplicate)
**Analysis:** SW846 6010C
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | Samples were received at the lab at 1.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | CB38519; MW-S15-092518-1 and CB38520; MW-S15-092518-2: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB38518
**Date Samples Collected:** 9/25/2018
**Number of Samples Collected**: 3 (including field duplicate)
**Analysis:** SW846 6020B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | Samples were received at the lab at 1.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | CB38519; MW-S15-092518-1 and CB38520; MW-S15-092518-2: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | All samples were subject to a 1:5 dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB38518
**Date Samples Collected:** 9/25/2018
**Number of Samples Collected**: 3 (including field duplicate)
**Analysis:** SW846 7470A
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | Samples were received at the lab at 1.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | CB38519; MW-S15-092518-1 and CB38520; MW-S15-092518-2: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB38518
**Date Samples Collected:** 9/25/2018
**Number of Samples Collected**: 2 (including field duplicate)
**Analysis:** SW8081B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples received at the lab were 1.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | CB38519; MW-S15-092518-1 and CB38520; MW-S15-092518-2: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | The LCS/LCSD RPD exceeds method criteria for a-BHC. This analyte was not reported so no variability is suspected. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB38518
**Date Samples Collected:** 9/25/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 8270D SIM
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at 1.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | CB38519; MW-S15-092518-1 and CB38520; MW-S15-092518-2: Sample results for for benzo(ghi)perylene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene outside of 30% RPD. Results for these compounds are considered to be estimated. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | The LCS/LCSD exceeds method criteria for 2-methylnapthalene and naphthalene. These compounds were not reported so no variability is suspected. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB39894
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 6010C
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB39894
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 6020B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | All samples analyzed by 6020B were subject to a 1:5 dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB39894
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 7470A
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | No field duplicate was collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | The LCS/LCSD recovery was acceptable. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | One or more analytes in the site specific matrix spike recovery is below the method criteria, therefore a low bias is likely. (Mercury) |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB39894
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 2
**Analysis:** SW8081B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples received at the lab were 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | Aldrin is below method criteria, low bias is possible. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | The LCS/LCSD RPD exceeds the method criteria for Aldrin. These analytes were not reported so no variability is suspected. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB39894
**Date Samples Collected:** 9/26/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 8270D SIM
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | No field duplicate sample was collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB60230
**Date Samples Collected:** 9/27/2018
**Number of Samples Collected**: 1
**Analysis:** SW846 6010C
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | Sample CB60230; MW-AJ13-092718-1 was subject to a dilution due to elevated levels of Zinc. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB60230
**Date Samples Collected:** 9/27/2018
**Number of Samples Collected**: 1
**Analysis:** SW846 6020B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | All samples analyzed by 6020B were subject to a 1:5 dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB60230
**Date Samples Collected:** 9/27/2018
**Number of Samples Collected**: 1
**Analysis:** SW846 7470A
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | No field duplicate was collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB60230
**Date Samples Collected:** 9/27/2018
**Number of Samples Collected**: 2
**Analysis:** SW8081B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples received at the lab were 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | Aldrin is below method criteria, low bias is possible. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | All LCS recoveries were within 40 - 140 with the following exceptions: Aldrin(31%)<br>All LCSD recoveries were within 40 - 140 with the following exceptions: Aldrin(30%) |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set.<br>A LCS and LCS duplicate were performed instead of a MS and MSD. Alpha and gamma chlordane were spiked and analyzed instead of technical chlordane. Gamma chlordane recovery is reported as chlordane in the LCS and LCSD |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB60230
**Date Samples Collected:** 9/27/2018
**Number of Samples Collected**: 1
**Analysis:** SW846 8270D SIM
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at 3.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | No field duplicate sample was collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB61089
**Date Samples Collected:** 9/28/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 6010C
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days | Samples were received at the lab at 3.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | ICV, CCV ±10% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Meets criteria. |
| **Quantitation Limits** | Dilutions | Zero samples were subject to dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB61089
**Date Samples Collected:** 9/28/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 6020B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | Samples were received at the lab at 3.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Meets criteria. |
| **Quantitation Limits** | Dilutions | All samples were subject to a 1:5 dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB61089
**Date Samples Collected:** 9/28/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 7470A
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | Samples were received at the lab at 3.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | No field duplicate was collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Meets criteria. |
| **Quantitation Limits** | Dilutions | The samples were not subject to a dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB61089
**Date Samples Collected:** 9/28/2018
**Number of Samples Collected**: 2
**Analysis:** SW8081B
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples received at the lab were 3.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | A field duplicate was not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | The LCS/LCSD RPD exceeds method criteria for a-BHC and Aldrin. These analytes were not reports so no variability is suspected. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | The MS/MSD exceeds method criteria for 4,4-DDD and methoxychlor. There may be variability in these analytes. |
| **Quantitation Limits** | Dilutions | These samples were not subject to dilution. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Phoenix Environmental Laboratories

**Sample Delivery Group Number:** GCB61089
**Date Samples Collected:** 9/28/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 8270D SIM
**Reviewer:** Matt Kenney

**Describe the intended use of the data:**
The data will be used for groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | Samples were received at the lab at 3.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | GW RPD ≤ 30% for results >2x Reporting Limit | No field duplicate was collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions were performed. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 4
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Meets criteria. |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 4
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 5 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, “r” ≥ 0.990 for all compounds except CCC’s, which must be ≤ 30 RSD or “r” ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Continuing calibration did not meet method specifications and was biased on the low side for this compound.<br>Analyte & Samples(s) Qualified:<br>Naphthalene<br>18L0663-01[MW-P7-121318-1], 18L0663-02[MW-AE8-121318-41], 18L0663-04[MW-S15-121318-1], 18L0663-05[MW-S15-121318-2], B219556-BLK1, B219556-BS1, S030615-CCV1<br><br>Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.<br>Analyte & Samples(s) Qualified:<br>Acrylonitrile<br>B219556-BS1<br>Chloromethane<br>B219556-BS1<br>Methylene Chloride<br>B219556-BS1<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acrylonitrile<br>B219556-BS1, S030615-CCV1<br>Bromomethane<br>B219350-BS1, S030547-CCV1<br>Chloromethane<br>B219556-BS1, S030615-CCV1<br>Methylene Chloride<br>B219556-BS1, S030615-CCV1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B219556-BS1, S030615-CCV1<br>Carbon Disulfide<br>B219556-BS1, S030615-CCV1<br>Hexachlorobutadiene<br>B219350-BS1, S030547-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Meets criteria. |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |

| | | |
|---|---|---|
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | Elevated reporting limits for all volatile compounds due to foaming sample matrix. Sample results from 2x dilution.<br>Analyte & Samples(s) Qualified:<br>18L0663-02[MW-AE8-121318-41] |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Aldrin<br>B219689-BS1, B219689-BSD1<br>alpha-BHC |

| | | |
|---|---|---|
| | | B219689-BS1, B219689-BSD1<br>gamma-BHC (Lindane)<br>B219689-BS1, B219689-BSD1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Meets criteria. |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 4
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 4
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | 18L0663-01; MW-P7-121318-1: Sample results from 5x dilution.<br><br>18L0663-02; MW-AE8-121318-41: Sample results from 5x dilution.<br><br>18L0663-04; MW-S15-121318-1: Sample results from 5x dilution.<br><br>18L0663-05; MW-S15-121318-2: Sample results from 5x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/13/2018
**Number of Samples Collected**: 10
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 4.5, 5.7, 2.1, 3.2°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | 18L0663-04 [MW-S15-121318-1] and 18L0663-05 [MW-S15-121318-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Decachlorobiphenyl<br>B219667-BS1, B219667-BSD1, S030584-CCV1<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified: |

| | | |
|---|---|---|
| | | Decachlorobiphenyl<br>18L0663-01[MW-P7-121318-1], 18L0663-02[MW-AE8-121318-41], 18L0663-03[MW-P11-121318-1], 18L0663-04[MW-S15-121318-1], 18L0663-05[MW-S15-121318-2], 18L0663-06[MW-X17-121318-1], 18L0663-08[MW-V18-121318-1], 18L0663-09[MW-T23-121318-1], 18L0663-10[MW-AA19-121318-1], 18L0663-11[MW-AA12-121318-1], B219667-BLK1 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40%<br>Lab limits for %R 0-200% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0583
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 3
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | No field duplicate collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Meets criteria. |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0663
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 3
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0583
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 4 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | Field duplicate sample not collected. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, “r” ≥ 0.990 for all compounds except CCC’s, which must be ≤ 30 RSD or “r” ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B219524-BS1<br>Chloromethane<br>B219524-BS1<br>Tetrahydrofuran<br>B219524-BS1<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Chloromethane<br>B219524-BS1, S030476-CCV1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B219524-BS1, S030476-CCV1<br>Carbon Disulfide<br>B219524-BS1, S030476-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.<br>Analyte & Samples(s) Qualified:<br>Bromomethane<br>18L0583-05[MW-AJ13-121218-1], 18L0583-06[MW-Y9-121218-1], 18L0583-07[Trip Blank], 18L0583-09[MW-AH16R-121218-1], B219524-BLK1, B219524-BS1 |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | Elevated reporting limits for all volatile compounds due to foaming sample matrix. Sample results from 2x dilution.<br>Analyte & Samples(s) Qualified:<br>18L0583-09[MW-AH16R-121218-1] |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0583
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 1
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration did not meet method specifications and was biased on the low side for this compound.<br>Analyte & Samples(s) Qualified:<br>Methoxychlor [2C]<br>B219423-BS1, B219423-BSD1 |

| | | |
|---|---|---|
| | | Continuing calibration did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>alpha-Chlordane [2C]<br>B219423-BS1, B219423-BSD1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Meets criteria. |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0583
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 4
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | No field duplicate collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0583
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 4
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | No field duplicate collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | 18L0583-03; MW-Y15-121218-1: Sample results from 5x dilution.<br><br>18L0583-05; MW-AJ13-121218-1: Sample results from 5x dilution.<br><br>18L0583-06; MW-Y9-121218-1: Sample results from 5x dilution.<br><br>18L0583-09; MW-AH16R-121218-1: Sample results from 5x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0583
**Date Samples Collected:** 12/12/2018
**Number of Samples Collected**: 11
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 5.6, 4.2, 4.7, 4.6°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | None taken. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0484
**Date Samples Collected:** 12/11/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.8, 5.1, 2.4°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration did not meet method specifications and was biased on the low side for this compound.<br>Analyte & Samples(s) Qualified:<br>Methoxychlor [2C]<br>B219423-BS1, B219423-BSD1 |

| | | |
|---|---|---|
| | | Continuing calibration did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>alpha-Chlordane [2C]<br>B219423-BS1, B219423-BSD1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Meets criteria. |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0484
**Date Samples Collected:** 12/11/2018
**Number of Samples Collected**: 11
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.8, 5.1, 2.4°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | 18L0484-03; MW-R20-121118-1 and 18L0484-04; MW-R20-121118-2: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Dichlorobiphenyls<br>S030493-CCV2<br>Monochlorobiphenyls<br>S030493-CCV2<br><br>Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected |

| | | |
|---|---|---|
| | | since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Dichlorobiphenyls<br>18L0484-08[MW-AV17-121118-1], 18L0484-09[MW-AP11-121118-1], 18L0484-10[MW-AL10-121118-1], 18L0484-11[MW-AJ19-121118-1]<br>Monochlorobiphenyls<br>18L0484-08[MW-AV17-121118-1], 18L0484-09[MW-AP11-121118-1], 18L0484-10[MW-AL10-121118-1], 18L0484-11[MW-AJ19-121118-1] |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40%<br>Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 2
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | No duplicate collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Meets criteria. |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 3 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | Field duplicate sample not collected. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, "r" ≥ 0.990 for all compounds except CCC's, which must be ≤ 30 RSD or "r" ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Chloromethane<br>B219111-BS1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B219111-BS1<br>Carbon Disulfide<br>B219111-BS1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Meets criteria. |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Matrix spike recovery and matrix spike duplicate recovery outside of control limits. Possibility of sample matrix effects that lead to a high bias for reported result or non-homogeneous sample aliquots cannot be eliminated.<br>Analyte & Samples(s) Qualified:<br>2-Hexanone (MBK)<br>B219111-MS1, B219111-MSD1<br>4-Methyl-2-pentanone (MIBK)<br>B219111-MS1, B219111-MSD1<br>Acetone<br>B219111-MS1, B219111-MSD1<br>Acrylonitrile<br>B219111-MS1, B219111-MSD1<br>Chloromethane<br>B219111-MS1, B219111-MSD1<br>Methylene Chloride<br>B219111-MS1, B219111-MSD1<br>Tetrahydrofuran<br>B219111-MS1, B219111-MSD1<br><br>Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.<br>Analyte & Samples(s) Qualified:<br>trans-1,2-Dichloroethylene<br>B219111-MSD1 |
| **Quantitation Limits** | Dilutions | Elevated reporting limits for all volatile compounds due to foaming sample matrix. Sample results from 2x dilution.<br>Analyte & Samples(s) Qualified: |

| | | |
|---|---|---|
| | | 18L0420-02[MW-35-121018-1] |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | Email requesting additional analysis for samples attached to lab report. SW-846 8081B anlaysis requested for MW-35-121018-1; however MW-F35-121018-1 was analyzed for 8081B instead. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Meets criteria. |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | None taken. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 2
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | None taken. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Meets criteria. |
| **Quantitation Limits** | Dilutions | 18L0420-01; MW-28-121018-1: Sample results from 5x dilution<br><br>18L0420-02; MW-35-121018-1: Sample results from 5x dilution |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 18L0420
**Date Samples Collected:** 12/10/2018
**Number of Samples Collected**: 3
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | Email requesting additional analysis for samples attached to lab report. Incorrect analysis run on MW-F35-121018-1. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.4, 4.4, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | None taken. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4
**Number of Samples Collected**: 4/15/2019
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4/15/2019
**Number of Samples Collected**: 4
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.<br>Analyte & Samples(s) Qualified:<br>Silver<br>19D0788-01[MW-28-041519-1], B228607-MS1, B228607-MSD1 |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4/15/2019
**Number of Samples Collected**: 4
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4/15/2019
**Number of Samples Collected**: 3
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Hexachlorobenzene [2C]<br>B228767-BS1, B228767-BSD1, B228767-MS1, B228767- |

| | | |
|---|---|---|
| | | MSD1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.<br>Analyte & Samples(s) Qualified:<br>alpha-BHC<br>19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1<br>alpha-BHC [2C]<br>19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1<br>gamma-BHC (Lindane)<br>19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1<br>gamma-BHC (Lindane) [2C]<br>19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-05[MW-H29-041519-1], B228767-BLK1, B228767-BS1, B228767-BSD1, B228767-MS1, B228767-MSD1 |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4/15/2019
**Number of Samples Collected**: 5 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, "r" ≥ 0.990 for all compounds except CCC's, which must be ≤ 30 RSD or "r" ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.<br>Analyte & Samples(s) Qualified:<br>Bromomethane<br>19D0788-01[MW-28-041519-1], 19D0788-02[MW-35-041519-1], 19D0788-03[ VOC Trip Blank], 19D0788-04[MW-D4-041519-1], 19D0788-05[MW-H29-041519-1], B228644-BLK1, B228644-BS1, B228644-MS1, B228644-MSD1, S035025-CCV1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B228644-BS1, B228644-MS1, B228644-MSD1, S035025-CCV1<br>Carbon Disulfide<br>B228644-BS1, B228644-MS1, B228644-MSD1, S035025-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Meets criteria. |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Matrix spike and spike duplicate recovery is outside of control limits. Analysis is in control based on laboratory fortified blank recovery. Possibility of matrix effects that lead to low bias or non-homogeneous sample aliquot cannot be eliminated.<br>Analyte & Samples(s) Qualified:<br>2,2-Dichloropropane<br>19D0788-01[MW-28-041519-1], B228644-MS1, B228644-MSD1<br>Bromomethane<br>19D0788-01[MW-28-041519-1], B228644-MS1, B228644-MSD1<br><br>Either matrix spike or matrix spike duplicate is outside of control limits, but the other is within limits. Analysis is in control based on laboratory fortified blank recovery.<br>Analyte & Samples(s) Qualified:<br>Chloromethane<br>B228644-MS1 |
| **Quantitation Limits** | Dilutions | No dilutions. |

| | | |
|---|---|---|
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4/15/2019
**Number of Samples Collected**: 4
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0788
**Date Samples Collected:** 4/15/2019
**Number of Samples Collected**: 3
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.6, 3.5, 4.4, 5.0°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Meets criteria. |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 9
**Number of Samples Collected**: 4/16/2019
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria.<br><br>19D0862-10 [MW-V18-041619-1] and 19D0862-11 [MW-V18-041619-2]: RPD for Monochlorobiphenyls >30%. Sample results for Monochlorobiphenyls considered to be estimated. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established | Meets criteria. |

| | | |
|---|---|---|
| | limits. | |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 4/16/2019
**Number of Samples Collected**: 6
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | Elevated reporting limit due to matrix.<br>Analyte & Samples(s) Qualified:<br>Arsenic<br>19D0862-08[MW-X17-041619-1]<br>Sample results for Arsenic from 2x dilution. Sample results for Barium from 10x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 4/16/2019
**Number of Samples Collected**: 6
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site-specific MS/MSD not specified in this data set. 19D0862-09; MW-N22-041619-1 run as B228930-MS1. Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 4/16/2019
**Number of Samples Collected**: 2
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Hexachlorobenzene [2C]<br>B228767-BS1, B228767-BSD1 |

| | | |
|---|---|---|
| | | |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.<br>Analyte & Samples(s) Qualified:<br>alpha-BHC<br>19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1<br>alpha-BHC [2C]<br>19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1<br>gamma-BHC (Lindane)<br>19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1<br>gamma-BHC (Lindane) [2C]<br>19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], B228767-BLK1, B228767-BS1, B228767-BSD1 |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 4/16/2019
**Number of Samples Collected**: 6 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, "r" ≥ 0.990 for all compounds except CCC's, which must be ≤ 30 RSD or "r" ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.<br>Analyte & Samples(s) Qualified:<br>Bromomethane<br>19D0862-02[MW-515-041619-1], 19D0862-03[MW-515-041619-2], 19D0862-05[ VOC Trip Blank], 19D0862-06[MW-P7-041619-1], 19D0862-07[MW-AH16R-041619-1], 19D0862-09[MW-N22-041619-1], B228644-BLK1, B228644-BS1, S035025-CCV1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B228644-BS1, S035025-CCV1<br>Carbon Disulfide<br>B228644-BS1, S035025-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Meets criteria. |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 4/16/2019
**Number of Samples Collected**: 5
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0862
**Date Samples Collected:** 4/16/2019
**Number of Samples Collected**: 5
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 4.3, 5.1, 4.9°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | 19D0862-02 [MW-515-041619-1] and 19D0862-03 [MW-515-041619-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.<br>Analyte & Samples(s) Qualified:<br>CT ETPH<br>B228884-BSD1 |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0864
**Date Samples Collected:** 3
**Number of Samples Collected**: 4/16/2019
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 4.3, 5.1°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | 19D0864-01 [ODG-FS-04161-1] and 19D0864-02 [ODG-F3-041619-2]: Meets criteria. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |

| | | |
|---|---|---|
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 9
**Number of Samples Collected**: 4/17/2019
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Pentachlorobiphenyls<br>S035117-CCV2 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established | Meets criteria. |

| | | |
|---|---|---|
| | limits. | |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40% Lab limits for %R 0-200% | Meets criteria. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 4/17/2019
**Number of Samples Collected**: 4
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site-specific MS/MSD not specified in this data set. 19D0928-01; MW-U20-041719-1 run as B228805-MS1. Meets criteria. |
| **Quantitation Limits** | Dilutions | 19D0928-02; MW-Y15-041719-1: Sample results for Barium from 10x dilution.<br><br>19D0928-04; MW-Y9-041719-1: Sample results for Barium from 10x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 4/17/2019
**Number of Samples Collected**: 4
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 4/17/2019
**Number of Samples Collected**: 1
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, “r” ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Hexachlorobenzene |

| | | |
|---|---|---|
| | | 19D0928-04[MW-Y9-041719-1] |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Meets criteria. |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 4/17/2019
**Number of Samples Collected**: 5 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, "r" ≥ 0.990 for all compounds except CCC's, which must be ≤ 30 RSD or "r" ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.<br>Analyte & Samples(s) Qualified:<br>Bromomethane<br>19D0928-01[MW-U20-041719-1], 19D0928-02[MW-Y15-041719-1], 19D0928-04[MW-Y9-041719-1], 19D0928-06[MW-AE8-041719-1], 19D0928-10[ VOC Trip Blank], B228877-BLK1, B228877-BS1, S035037-CCV1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B228877-BS1, S035037-CCV1<br>Carbon Disulfide<br>B228877-BS1, S035037-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Meets criteria. |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 4/17/2019
**Number of Samples Collected**: 3
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0928
**Date Samples Collected:** 4/17/2019
**Number of Samples Collected**: 3
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 3.4, 4.8, 2.7°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.<br>Analyte & Samples(s) Qualified:<br>CT ETPH<br>B228884-BSD1 |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 8
**Number of Samples Collected**: 4/18/2019
**Analysis:** EPA Method 680 Modified
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | IC: RSD <20%<br>CCV: %D <20% | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.<br>Analyte & Samples(s) Qualified:<br>Pentachlorobiphenyls<br>19D0971-02[MW-AM16-041819-1], 19D0971-03[MW-AJ13-041819-1], 19D0971-04[MW-AM16D-041819-1], 19D0971-05[MW-AJ13D-041819-1], 19D0971-06[MW-AV17-041819-1], 19D0971-08[MW-AA12-041819-1], 19D0971-09[MW-AG10-041819-1], 19D0971-10[MW-AA12D-041819-1], |

| | | |
|---|---|---|
| | | B229101-BLK1,<br>B229101-BS1, B229101-BSD1, S035219-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Qualifiers listed in Quality Control Data; Percent recovery meets laboratory established limits. | Meets criteria. |
| **Surrogates** | Two surrogates to be spiked for all samples; Percent recovery meets laboratory established limits. | EPA Method 680 requires the use of two surrogates. ConTest reported only one surrogate. Therefore, based on professional judgment, all positive and nondetect PCB homologue group results as well as the total PCB homologue results for all samples were qualified as estimated because of the lack of a second surrogate. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Relative difference <40%<br>Lab limits for %R 0-200% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 4/18/2019
**Number of Samples Collected**: 2
**Analysis:** SW846 6020B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring.. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>180 days<br>Mercury 28 days | 2.7, 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV, CCV ±10% of true value | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media and within vendor control (95% confidence limits) for solids | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± 2x RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | 19D0971-03; MW-AJ13-041819-1: Sample results for Zinc from 50x dilution. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 4/18/2019
**Number of Samples Collected**: 2
**Analysis:** SW846 7470A
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br><br>28 days | 2.7, 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | "r" ≥ 0.995<br>ICV ±10% of true value<br>CCV ±20% of true value | No issues narrated. |
| **Laboratory Control Samples (Blank Spike)** | LCS recoveries ±20% for aqueous media<br>and within vendor control | Meets criteria. |

| | | |
|---|---|---|
| | (95% confidence limits) for solids | |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | MS percent recovery 75-125%<br>MSD for solids if conc >5x RL, RPD <35%. If conc. < 5x RL, difference ± RL | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 4/18/2019
**Number of Samples Collected**: 2
**Analysis:** SW846 8081B
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 20%, “r” ≥ 0.990<br>% difference or drift ≤ 15% | Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Hexachlorobenzene |

| | | |
|---|---|---|
| | | 19D0971-02[MW-AM16-041819-1], 19D0971-06[MW-AV17-041819-1] |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140%<br>Difficult analytes percent recovery 30-140% | Meets criteria. |
| **Surrogates** | Percent recovery 30-150%<br>Minimum 2 compounds across retention times of GC run. | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 30-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 4/18/2019
**Number of Samples Collected**: 3 (including trip blank)
**Analysis:** SW-846 8260C
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | Soil: ice sample in field, preserve with methanol, sodium bisulfate, or freezing; hold time 14 days if preserved, 48 hours if unpreserved Aqueous: <6 °C, either HCl or sodium bisulfate at time of collection; hold time 14 days | 2.7, 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | RPD ≤ 30% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | Target analytes must be <RL except for common lab contaminants which must be <3x the RL (Contaminants are acetone, methylene chloride, and 2-butanone) | Meets criteria. |

| | | |
|---|---|---|
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | Initial: % RSD ≤ 15, “r” ≥ 0.990 for all compounds except CCC’s, which must be ≤ 30 RSD or “r” ≥ 0.990<br>Continuing: percent difference ≤20 for CCCs and should be ≤30 for all other compounds | Initial calibration verification (ICV) did not meet method specifications and was biased on the low side for this compound. Reported result is estimated.<br>Analyte & Samples(s) Qualified:<br>Bromomethane<br>19D0971-01[VOC Trip Blank], 19D0971-03[MW-AJ13-041819-1], 19D0971-08[MW-AA12-041819-1], B228877-BLK1, B228877-BS1, S035037-CCV1<br><br>Initial calibration verification (ICV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.<br>Analyte & Samples(s) Qualified:<br>Acetone<br>B228877-BS1, S035037-CCV1<br>Carbon Disulfide<br>B228877-BS1, S035037-CCV1 |
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 70-130% for target compounds | Meets criteria. |
| **Surrogates** | Percent recovery 70-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 70-130% for target compounds<br>RPD ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 4/18/2019
**Number of Samples Collected**: 1
**Analysis:** SW846 8270D SIM
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | <6 °C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 2.8°C |
| **Percent Solids** | > 30% | N/A |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 15%, "r" ≥ 0.990<br>% difference or drift ≤ 30% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Meets criteria. |
| **Surrogates** | Percent recovery 30-130% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 40-140% for base-neutrals and 30-130% for acid compounds | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Tentatively Identified Compounds** | | N/A |
| **Other QC data** | | N/A |

# DATA USABILITY EVALUATION WORKSHEET

**Project Name:** Greenwich High School
**Laboratory:** Con-Test Analytical Laboratory

**Sample Delivery Group Number:** 19D0971
**Date Samples Collected:** 4/17/19 and 4/18/2019
**Number of Samples Collected**: 2
**Analysis:** CT ETPH
**Reviewer:** Elizabeth Doerfler

**Describe the intended use of the data:**
The data will be used for compliance groundwater monitoring. The data have met the reasonable confidence requirements with the exceptions noted below. In addition, the data appear valid as reported and may be used for decision making purposes. No data were rejected.

| Nonconformance DQA Review Elements | Criteria | Briefly Summarize DQA Nonconformances |
|---|---|---|
| **Laboratory Report Inspection** | | Complete. |
| **Reasonable Confidence Evaluation** | You have Reasonable Confidence if the answers to questions 1, 1A, and 1B are Yes. | Meets criteria. |
| **Chain of Custody Evaluation** | Analyses agree with COC | COC accompanied samples, analyses agree with COC. |
| **Sample Preservation and Holding Time Evaluation** | < 6 ° C<br>Extraction 7 days (aqueous), 14 days (soil); 40 days to analysis (aqueous and soil) | 2.7, 2.8°C |
| **Percent Solids** | > 30% | NA |
| **Field Duplicate** | Soils RPD ≤ 50% for results >2x Reporting Limit | Field duplicate not collected. |
| **Method Blank** | < RLs | Meets criteria. |
| **Equipment Blanks** | < RLs | None taken. |
| **Initial and Continuing Calibration** | % RSD ≤ 30%, "r" ≥ 0.990<br>% difference or drift ≤ 15% | No issues narrated. |

| | | |
|---|---|---|
| **Laboratory Control Samples (Blank Spike)** | Percent recovery 60-120% | Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.<br>Analyte & Samples(s) Qualified:<br>CT ETPH<br>B228884-BSD1 |
| **Surrogates** | Percent recovery 50-150% | Meets criteria. |
| **Site Specific Matrix Spikes and Matrix Spike Duplicates** | Percent recovery 50-150%<br>RPDs ≤ 30% | Site-specific MS/MSD not included in this data set. |
| **Quantitation Limits** | Dilutions | No dilutions. |
| **Other QC data** | | N/A |