# Portable High-Throughput Integrated Laboratory Identification System (PHILIS)

**EPA Contract No. EP-W-09-034**
**U.S. Environmental Protection Agency**
**Office of Emergency Management**
**Washington, DC 20460**

# Data Report

DPC-102 dated 09-16-2017

**Site Name: Houston Superfund Environmental Response**

**Client: US EPA – Region 6**

Sample Collection Date: 09/14/2017

Work Order No.: C17I009

Operated by:

**CSS**
**8833 Cincinnati-Dayton Road, Suite 202**
**West Chester, OH 45069**

The test results in this report meet all 2003 NELAP and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Program Manager. This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature. Results relate only to the items tested and the sample(s) as received by the laboratory.

## ANALYSES INCLUDED IN THIS REPORT

Volatile Organic Compounds by EPA method 8260C.
Semi-Volatile Organic Compounds by EPA method 8270D.

## REPORT NARRATIVE

PHILIS Unit: PAL (VIN No.: 1S12E95325E506676)
SPA (VIN No.: 4AG6U33235C037445)

Field Sample Identifiers:

| Field ID # | Lab ID # |
|---|---|
| PBSW-091417-001 | C17I009-01 |
| PBSW-091417-002 | C17I009-02 |
| ALS-091217-24 Trip Blank | C17I009-03 |
| | |

Data Package Identifier(s) / Data Reporting Group: **C17I009**

Shipping Information:

Carrier Name: Delivered by Client

Date Received: 09/14/2017

## GENERAL COMMENTS AND SUMMARY

Sample receipt and analysis proceeded as per protocol. Any discrepancies are noted below.

## SAMPLE RECEIPT

Samples received by the laboratory met SOP requirements for sample receipt.

## ANALYTICAL EXCEPTIONS

Sample analysis met method and SOP requirements. Any deviations are noted below.

## PERFORMANCE FOR METHOD 8260C

### Mass Spectrometer Instrument Performance Check

Met method and SOP requirements.

### Initial Calibration

Met method and SOP requirements.

### Second-source Calibration Verification (SCV)

Met method and SOP requirements.

### Continuing Calibration Verification (CCV)

A-01 - CI71402-CCV1: Acetone exceeded method/SOP acceptance criteria (124% Drift – The upper limit is 120% Drift). Acetone was not detected in any of the associated samples. 1,1,2,2-Tetrachloroethane exceeded method/SOP acceptance criteria (127% Drift – the upper limit is 120% Drift). Acetone and 1,1,2,2-Tetrachloroethane were not detected in any of the associated samples except for samples C17I009-01 and C17I009-02. Samples C17I009-1 and C17I009-02 were analyzed under a separate acetone only (analyzed 9/14/17 LIMS curve ID: C173703) curve in which acetone was within method/SOP acceptance limits.

### Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD)

Met method and SOP requirements.

### Matrix Spike/ Matrix Spike Duplicate (MS/MSD) or Duplicate

Met method and SOP requirements.

### Internal Standards

Met method and SOP requirements.

### Method Blanks

Met method and SOP requirements.

### Surrogates Standards

Met method and SOP requirements.

### Samples

Samples C17I009-01 and C17I009-02 were reanalyzed because acetone was detected in the samples above the laboratory reporting limit. The samples were reanalyzed under a separate acetone only (analyzed 9/14/17 LIMS curve ID: C173703) curve in which acetone was within method/SOP acceptance limits.

## PERFORMANCE FOR METHOD 8270D

**Mass Spectrometer Instrument Performance Check**
Met method and SOP requirements.

**Initial Calibration**
Met method and SOP requirements.

**Second-source Calibration Verification (SCV)**
Met method and SOP requirements.

**Continuing Calibration Verification (CCV)**
Met method and SOP requirements.

**Laboratory Control Sample/ Laboratory Control Sample Duplicate (LCS/LCSD)**
Met method and SOP requirements.

**Matrix Spike/ Matrix Spike Duplicate (MS/MSD) or Duplicate**
Met method and SOP requirements.

**Internal Standards**
Met method and SOP requirements.

**Method Blanks**
Met method and SOP requirements.

**Surrogates Standards**
Met method and SOP requirements.

**Samples**
Met method and SOP requirements.

## ABBREVIATIONS AND DEFINITIONS

| Abbreviation | Definition |
|---|---|
| % Breakdown | Percent Breakdown |
| % by weight | Percent by weight |
| % Diff/Drift | Percent difference/ drift (ccv rf relative to ical mean rf/ ccv or scv concentration relative to standard concentration) |
| % R | Percent Recovery |
| % Resolution | Percent Resolution |
| % RSD | Percent Relative Standard Deviation |
| % Solids | Percent Solids |
| %D (%Diff/Drift) | Percent Difference |
| Area % | Area percent (relative to reference area – midpoint standard from curve) |
| AVECF | Mean Calibration Factor |
| AVERRF | Mean Relative Response Factor |
| AVERT | Mean Retention Time |
| BLK | Blank |
| BS | Blank Spike |
| BSD | Blank Spike Duplicate |
| CAL | Calibration |
| Calibration Mean RT | Calibration Mean Retention Time (Mean retention time of compound from curve) |
| CCV | Continuing Calibration Verification |
| CF | Calibration Factor |
| COC | Chain of Custody |
| COD | Coefficient of Determination |
| D | Dilution |
| Dev | Deviation |
| DIFF | Difference |
| DMC | Deuterated Monitoring Compound |
| DUP | Sample Duplicate |
| HCV | High Concentration Calibration Verification |
| IB | Instrument Blank |
| ICAL | Initial Calibration |
| ICB | Instrument Calibration Blank |
| IS | Internal Standard |
| LCS | Laboratory Control Sample |
| LCSD | Laboratory Control Sample Duplicate |
| LEB | Leachate Extraction Blank |
| Linear r | Linear curve fit |
| MB | Method Blank |
| MDL | Method Detection Limit |

| Abbreviation | Definition |
|---|---|
| Mean RF | Mean Response Factor (curve) |
| Mean RT | Mean Retention Time (curve) |
| Min(#) | Minimum response factor value (if not at or above this value - there must be an explanation in narrative. |
| MS | Matrix Spike |
| MSD | Matrix Spike Duplicate |
| PE | Performance Evaluation |
| Prep | Preparation |
| Q | Qualifier (see narrative for explanation) |
| Q DEL'd | Deleted compound (false positive) |
| QC | Quality Control |
| QIon | Quantitation or Target Ion |
| QUAD | Quadratic |
| Quad COD | Quadratic curve fit |
| Rec. | Recovery |
| REF | Reference |
| Rel. | Relative |
| RF | Response Factor |
| RF RSD | Response Factor Relative Standard Deviation(curve) |
| RL | Reporting Limit |
| RPD (%RPD) | Relative Percent Difference |
| RRF | Relative Response Factor |
| RRT | Relative Retention Time |
| RT | Retention Time |
| RT Diff | Retention Time Difference (relative to calibration mean RT) |
| RT RSD | Retention Time Relative Standard Deviation (Curve) |
| SCV | Second source Calibration Verification |
| SDG | Sample Delivery Group |
| SEDD | Staged Electronic Data Deliverable |
| SOP | Standard Operating Procedure |
| STD | Standard |
| TAL | Target Analyte List |
| TIC | Tentatively Identified Compound |
| TOF | Time-of-Flight |
| TUN | Tune Check |
| U | Under the RL |
| ug/Kg dry | Result on dry weight basis |
| ug/Kg wet | Result on wet weight basis |

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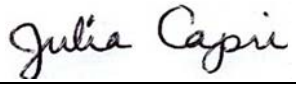
Report Approvals:



**Julia Capri**
PHILIS Program Manager

PHILIS
Portable High-throughput Integrated laboratory Identification Systems

# CLIENT - LAB SAMPLE CROSS REFERENCE

**EPA**
**2890 Woodbridge Ave. Bldg. 238**
**Edison NJ, 08837**

**Project:** Hurricane Harvey Environmental Response
**Project Number:** [none]
**Project Manager:** Larry Kaelin

**Reported:** 09/15/17 09:18
**Printed:** 09/15/17 09:18

| Sample ID | Laboratory ID | Matrix | Date Sampled | Date Received |
|---|---|---|---|---|
| PBSW-091417-001 | C17I009-01 | Water | 09/14/17 13:30 | 09/14/17 16:58 |
| PBSW-091417-002 | C17I009-02 | Water | 09/14/17 15:03 | 09/14/17 16:58 |
| ALS-091217-24 Trip Blank | C17I009-03 | Water | 09/12/17 00:00 | 09/14/17 16:58 |

*The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.*

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Portable High-throughput Integrated laboratory Identification Systems

CSS

# ANALYTICAL RESULTS

**EPA**
**2890 Woodbridge Ave. Bldg. 238**
**Edison NJ, 08837**

**Project:** Hurricane Harvey Environmental Response
**Project Number:** [none]
**Project Manager:** Larry Kaelin

**Reported:** 09/15/17 09:16
**Printed:** 09/15/17 09:16

**Sample ID:** PBSW-091417-001
**Labratory ID:** C17I009-01 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #5
**Method:** Semivolatile Organic Compounds by EPA Method 8270D

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Phenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Bis(2-chloroethyl)ether | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Chlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Methylphenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,2'-Oxybis(1-chloropropane) | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| N-Nitroso-di-n-propylamine | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachloroethane | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Nitrobenzene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Isophorone | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Nitrophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dimethylphenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Bis(2-chloroethoxy)methane | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dichlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Naphthalene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Chloroaniline | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachlorobutadiene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Chloro-3-methylphenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Methylnaphthalene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachlorocyclopentadiene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4,6-Trichlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4,5-Trichlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Chloronaphthalene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Nitroaniline | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Dimethylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,6-Dinitrotoluene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Acenaphthylene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Acenaphthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 3-Nitroaniline | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dinitrophenol | ND | 100 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Nitrophenol | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Dibenzofuran | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dinitrotoluene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Diethylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Chlorophenyl-phenylether | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Fluorene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |

**Sample ID:** PBSW-091417-001
**Labratory ID:** C17I009-01 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #5
**Method:** Semivolatile Organic Compounds by EPA Method 8270D

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 4-Nitroaniline | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Bromophenyl-phenylether | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachlorobenzene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Pentachlorophenol | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Phenanthrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Anthracene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Carbazole | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Di-n-butylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Fluoranthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Pyrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Butylbenzylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(a)anthracene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Chrysene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Di-n-octylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(b)fluoranthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(k)fluoranthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(a)pyrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Dibenzo(a,h)anthracene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(g,h,i)perylene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Surrogate: 2-Fluorophenol* | *33.8 %* | *0-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* |
| *Surrogate: Phenol-d6* | *24.0 %* | *1.78-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* |
| *Surrogate: Nitrobenzene-d5* | *49.2 %* | *4.97-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* |
| *Surrogate: 2-Fluorobiphenyl* | *52.1 %* | *6.08-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* |
| *Surrogate: 2,4,6-Tribromophenol* | *59.6 %* | *1.77-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* |
| *Surrogate: Terphenyl-d14* | *78.3 %* | *21.1-160* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* |

**Sample ID:** PBSW-091417-001
**Labratory ID:** C17I009-01 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Vinyl chloride | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromomethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Trichlorofluoromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Methylene chloride | ND | 5.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Methyl tert-butyl ether | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromochloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloroform | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Carbon tetrachloride | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 2-Butanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Benzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Trichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichloropropane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromodichloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| cis-1,3-Dichloropropene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Toluene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Tetrachloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| trans-1,3-Dichloropropene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 4-Methyl-2-pentanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Dibromochloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dibromoethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 2-Hexanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Ethylbenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| m,p-Xylene | ND | 6.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| o-Xylene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Xylene (total) | ND | 6.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromoform | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Styrene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Isopropylbenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,2,2-Tetrachloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,3-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |

**Sample ID:** PBSW-091417-001
**Labratory ID:** C17I009-01 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 1,4-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dibromo-3-chloropropane | ND | 5.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2,4-Trichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2,3-Trichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Surrogate: 1,2-Dichloroethane-d4* | *115 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* | |
| *Surrogate: Toluene-d8* | *99.7 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* | |
| *Surrogate: 4-Bromofluorobenzene* | *107 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* | |

**Sample ID:** PBSW-091417-001
**Labratory ID:** C17I009-01RE1 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| **Acetone** | **25.3** | 10.0 | ug/L | 1 | C7I1501 | 09/14/17 | 09/15/17 | 8260C | |
| *Surrogate: 1,2-Dichloroethane-d4* | | *104 %* | *80-120* | | *C7I1501* | *09/14/17* | *09/15/17* | *8260C* | |
| *Surrogate: Toluene-d8* | | *99.2 %* | *80-120* | | *C7I1501* | *09/14/17* | *09/15/17* | *8260C* | |
| *Surrogate: 4-Bromofluorobenzene* | | *98.6 %* | *80-120* | | *C7I1501* | *09/14/17* | *09/15/17* | *8260C* | |

**Sample ID:** PBSW-091417-002
**Labratory ID:** C17I009-02 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #5
**Method:** Semivolatile Organic Compounds by EPA Method 8270D

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Phenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Bis(2-chloroethyl)ether | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Chlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Methylphenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,2'-Oxybis(1-chloropropane) | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| N-Nitroso-di-n-propylamine | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachloroethane | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Nitrobenzene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Isophorone | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Nitrophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dimethylphenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Bis(2-chloroethoxy)methane | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dichlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Naphthalene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Chloroaniline | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachlorobutadiene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Chloro-3-methylphenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Methylnaphthalene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachlorocyclopentadiene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4,6-Trichlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4,5-Trichlorophenol | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Chloronaphthalene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2-Nitroaniline | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Dimethylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,6-Dinitrotoluene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Acenaphthylene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Acenaphthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 3-Nitroaniline | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dinitrophenol | ND | 100 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Nitrophenol | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Dibenzofuran | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 2,4-Dinitrotoluene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Diethylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Chlorophenyl-phenylether | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Fluorene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Nitroaniline | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4,6-Dinitro-2-methylphenol | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| 4-Bromophenyl-phenylether | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Hexachlorobenzene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Pentachlorophenol | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Phenanthrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |

**Sample ID:** PBSW-091417-002
**Labratory ID:** C17I009-02 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #5
**Method:** Semivolatile Organic Compounds by EPA Method 8270D

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Anthracene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Carbazole | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Di-n-butylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Fluoranthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Pyrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Butylbenzylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(a)anthracene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Bis(2-ethylhexyl)phthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Chrysene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Di-n-octylphthalate | ND | 50.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(b)fluoranthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(k)fluoranthene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(a)pyrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Indeno(1,2,3-cd)pyrene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Dibenzo(a,h)anthracene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |
| Benzo(g,h,i)perylene | ND | 25.0 | ug/L | 1 | C7I1402 | 09/14/17 | 09/14/17 | 8270D | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Surrogate: 2-Fluorophenol* | *27.2 %* | *0-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* | |
| *Surrogate: Phenol-d6* | *19.0 %* | *1.78-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* | |
| *Surrogate: Nitrobenzene-d5* | *38.8 %* | *4.97-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* | |
| *Surrogate: 2-Fluorobiphenyl* | *43.8 %* | *6.08-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* | |
| *Surrogate: 2,4,6-Tribromophenol* | *60.8 %* | *1.77-120* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* | |
| *Surrogate: Terphenyl-d14* | *76.2 %* | *21.1-160* | *C7I1402* | *09/14/17* | *09/14/17* | *8270D* | |

**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Vinyl chloride | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromomethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Trichlorofluoromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Methylene chloride | ND | 5.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Methyl tert-butyl ether | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| **cis-1,2-Dichloroethene** | **2.08** | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | |
| Bromochloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloroform | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Carbon tetrachloride | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |

**Sample ID:** PBSW-091417-002
**Labratory ID:** C17I009-02 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 2-Butanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Benzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Trichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichloropropane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromodichloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| cis-1,3-Dichloropropene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Toluene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Tetrachloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| trans-1,3-Dichloropropene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 4-Methyl-2-pentanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Dibromochloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dibromoethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 2-Hexanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Ethylbenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| m,p-Xylene | ND | 6.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| o-Xylene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Xylene (total) | ND | 6.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromoform | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Styrene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Isopropylbenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,2,2-Tetrachloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,3-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,4-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dibromo-3-chloropropane | ND | 5.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2,4-Trichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2,3-Trichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Surrogate: 1,2-Dichloroethane-d4* | *116 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* |
| *Surrogate: Toluene-d8* | *98.4 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* |
| *Surrogate: 4-Bromofluorobenzene* | *104 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* |

**Sample ID:** PBSW-091417-002
**Labratory ID:** C17I009-02RE1 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10.0 | ug/L | 1 | C7I1501 | 09/14/17 | 09/15/17 | 8260C | U |
| *Surrogate: 1,2-Dichloroethane-d4* | | *105 %* | *80-120* | | *C7I1501* | *09/14/17* | *09/15/17* | *8260C* | |
| *Surrogate: Toluene-d8* | | *97.0 %* | *80-120* | | *C7I1501* | *09/14/17* | *09/15/17* | *8260C* | |
| *Surrogate: 4-Bromofluorobenzene* | | *99.3 %* | *80-120* | | *C7I1501* | *09/14/17* | *09/15/17* | *8260C* | |

**Sample ID:** ALS-091217-24 Trip Blank
**Labratory ID:** C17I009-03 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Vinyl chloride | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromomethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Trichlorofluoromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Methylene chloride | ND | 5.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Methyl tert-butyl ether | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Acetone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromochloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chloroform | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Carbon tetrachloride | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 2-Butanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Benzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Trichloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichloropropane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromodichloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| cis-1,3-Dichloropropene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Toluene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Tetrachloroethene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| trans-1,3-Dichloropropene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 4-Methyl-2-pentanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Dibromochloromethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dibromoethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 2-Hexanone | ND | 10.0 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Chlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Ethylbenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| m,p-Xylene | ND | 6.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| o-Xylene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Xylene (total) | ND | 6.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Bromoform | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Styrene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| Isopropylbenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,1,2,2-Tetrachloroethane | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |

**Sample ID:** ALS-091217-24 Trip Blank
**Labratory ID:** C17I009-03 (Water)
**Laboratory:** PHILIS
**Instrument ID:** GC/MS #4
**Method:** Volatile Organic Compounds by EPA Method 8260C

| Analyte | Result | Rpt Limit | Units | Dilution | Batch | Prepared | Analyzed | Method | Notes |
|---|---|---|---|---|---|---|---|---|---|
| 1,3-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,4-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2-Dibromo-3-chloropropane | ND | 5.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2,4-Trichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |
| 1,2,3-Trichlorobenzene | ND | 2.00 | ug/L | 1 | C7I1401 | 09/14/17 | 09/14/17 | 8260C | U |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| *Surrogate: 1,2-Dichloroethane-d4* | *118 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* | |
| *Surrogate: Toluene-d8* | *97.5 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* | |
| *Surrogate: 4-Bromofluorobenzene* | *106 %* | *80-120* | *C7I1401* | *09/14/17* | *09/14/17* | *8260C* | |

PHILIS
Portable High-throughput Integrated laboratory Identification Systems

# QUALITY CONTROL

**EPA**
**2890 Woodbridge Ave. Bldg. 238**
**Edison NJ, 08837**

**Project:** Hurricane Harvey Environmental Response
**Project Number:** [none]
**Project Manager:** Larry Kaelin

**Reported:** 09/15/17 09:19
**Printed:** 09/15/17 09:19

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** Blank (C7I1402-BLK1)
**Sp Source:**
**Analyzed Date:** Prepared: 09/13/17 Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | ND | 25.0 | ug/L | | | | | | | |
| Bis(2-chloroethyl)ether | ND | 25.0 | ug/L | | | | | | | |
| 2-Chlorophenol | ND | 25.0 | ug/L | | | | | | | |
| 2-Methylphenol | ND | 25.0 | ug/L | | | | | | | |
| 2,2'-Oxybis(1-chloropropane) | ND | 25.0 | ug/L | | | | | | | |
| N-Nitroso-di-n-propylamine | ND | 25.0 | ug/L | | | | | | | |
| Hexachloroethane | ND | 25.0 | ug/L | | | | | | | |
| Nitrobenzene | ND | 25.0 | ug/L | | | | | | | |
| Isophorone | ND | 25.0 | ug/L | | | | | | | |
| 2-Nitrophenol | ND | 25.0 | ug/L | | | | | | | |
| 2,4-Dimethylphenol | ND | 25.0 | ug/L | | | | | | | |
| Bis(2-chloroethoxy)methane | ND | 25.0 | ug/L | | | | | | | |
| 2,4-Dichlorophenol | ND | 25.0 | ug/L | | | | | | | |
| Naphthalene | ND | 25.0 | ug/L | | | | | | | |
| 4-Chloroaniline | ND | 25.0 | ug/L | | | | | | | |
| Hexachlorobutadiene | ND | 25.0 | ug/L | | | | | | | |
| 4-Chloro-3-methylphenol | ND | 25.0 | ug/L | | | | | | | |
| 2-Methylnaphthalene | ND | 25.0 | ug/L | | | | | | | |
| Hexachlorocyclopentadiene | ND | 25.0 | ug/L | | | | | | | |
| 2,4,6-Trichlorophenol | ND | 25.0 | ug/L | | | | | | | |
| 2,4,5-Trichlorophenol | ND | 25.0 | ug/L | | | | | | | |
| 2-Chloronaphthalene | ND | 25.0 | ug/L | | | | | | | |
| 2-Nitroaniline | ND | 25.0 | ug/L | | | | | | | |
| Dimethylphthalate | ND | 50.0 | ug/L | | | | | | | |
| 2,6-Dinitrotoluene | ND | 25.0 | ug/L | | | | | | | |
| Acenaphthylene | ND | 25.0 | ug/L | | | | | | | |
| Acenaphthene | ND | 25.0 | ug/L | | | | | | | |
| 3-Nitroaniline | ND | 25.0 | ug/L | | | | | | | |
| 2,4-Dinitrophenol | ND | 100 | ug/L | | | | | | | |
| 4-Nitrophenol | ND | 50.0 | ug/L | | | | | | | |
| Dibenzofuran | ND | 25.0 | ug/L | | | | | | | |
| 2,4-Dinitrotoluene | ND | 25.0 | ug/L | | | | | | | |
| Diethylphthalate | ND | 50.0 | ug/L | | | | | | | |
| 4-Chlorophenyl-phenylether | ND | 25.0 | ug/L | | | | | | | |
| Fluorene | ND | 25.0 | ug/L | | | | | | | |
| 4-Nitroaniline | ND | 50.0 | ug/L | | | | | | | |
| 4,6-Dinitro-2-methylphenol | ND | 50.0 | ug/L | | | | | | | |

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** Blank (C7I1402-BLK1)
**Sp Source:**
**Analyzed Date:** Prepared: 09/13/17 Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Bromophenyl-phenylether | ND | 25.0 | ug/L | | | | | | | |
| Hexachlorobenzene | ND | 25.0 | ug/L | | | | | | | |
| Pentachlorophenol | ND | 50.0 | ug/L | | | | | | | |
| Phenanthrene | ND | 25.0 | ug/L | | | | | | | |
| Anthracene | ND | 25.0 | ug/L | | | | | | | |
| Carbazole | ND | 25.0 | ug/L | | | | | | | |
| Di-n-butylphthalate | ND | 50.0 | ug/L | | | | | | | |
| Fluoranthene | ND | 25.0 | ug/L | | | | | | | |
| Pyrene | ND | 25.0 | ug/L | | | | | | | |
| Butylbenzylphthalate | ND | 50.0 | ug/L | | | | | | | |
| Benzo(a)anthracene | ND | 25.0 | ug/L | | | | | | | |
| Bis(2-ethylhexyl)phthalate | ND | 50.0 | ug/L | | | | | | | |
| Chrysene | ND | 25.0 | ug/L | | | | | | | |
| Di-n-octylphthalate | ND | 50.0 | ug/L | | | | | | | |
| Benzo(b)fluoranthene | ND | 25.0 | ug/L | | | | | | | |
| Benzo(k)fluoranthene | ND | 25.0 | ug/L | | | | | | | |
| Benzo(a)pyrene | ND | 25.0 | ug/L | | | | | | | |
| Indeno(1,2,3-cd)pyrene | ND | 25.0 | ug/L | | | | | | | |
| Dibenzo(a,h)anthracene | ND | 25.0 | ug/L | | | | | | | |
| Benzo(g,h,i)perylene | ND | 25.0 | ug/L | | | | | | | |
| *Surrogate: 2-Fluorophenol* | *120* | | *ug/L* | *400.00* | | *30.1* | *0-120* | | | |
| *Surrogate: Phenol-d6* | *79.2* | | *ug/L* | *400.00* | | *19.8* | *1.78-120* | | | |
| *Surrogate: Nitrobenzene-d5* | *174* | | *ug/L* | *400.00* | | *43.5* | *4.97-120* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *176* | | *ug/L* | *400.00* | | *43.9* | *6.08-120* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *232* | | *ug/L* | *400.00* | | *58.0* | *1.77-120* | | | |
| *Surrogate: Terphenyl-d14* | *334* | | *ug/L* | *400.00* | | *83.5* | *21.1-160* | | | |

**Instrument ID:** GC/MS #5
**Sample Header:** LCS (C7I1402-BS1)
**Sp Source:**
**Analyzed Date:** Prepared: 09/13/17 Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | 105 | 25.0 | ug/L | 400.00 | | 26.2 | 9.64-120 | | | |
| Bis(2-chloroethyl)ether | 218 | 25.0 | ug/L | 400.00 | | 54.6 | 34.7-120 | | | |
| 2-Chlorophenol | 219 | 25.0 | ug/L | 400.00 | | 54.7 | 30.8-120 | | | |
| 2-Methylphenol | 210 | 25.0 | ug/L | 400.00 | | 52.5 | 30.8-120 | | | |
| 2,2'-Oxybis(1-chloropropane) | 211 | 25.0 | ug/L | 400.00 | | 52.8 | 32-120 | | | |
| N-Nitroso-di-n-propylamine | 230 | 25.0 | ug/L | 400.00 | | 57.5 | 37.3-120 | | | |
| Hexachloroethane | 145 | 25.0 | ug/L | 400.00 | | 36.2 | 22.9-120 | | | |

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** LCS (C7I1402-BS1)
**Sp Source:**
**Analyzed Date:** Prepared: 09/13/17 Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Nitrobenzene | 236 | 25.0 | ug/L | 400.00 | | 58.9 | 37.4-120 | | | |
| Isophorone | 252 | 25.0 | ug/L | 400.00 | | 63.0 | 43.8-120 | | | |
| 2-Nitrophenol | 238 | 25.0 | ug/L | 400.00 | | 59.6 | 35.4-120 | | | |
| 2,4-Dimethylphenol | 232 | 25.0 | ug/L | 400.00 | | 58.0 | 25-120 | | | |
| Bis(2-chloroethoxy)methane | 235 | 25.0 | ug/L | 400.00 | | 58.7 | 39.9-120 | | | |
| 2,4-Dichlorophenol | 244 | 25.0 | ug/L | 400.00 | | 61.1 | 37.5-120 | | | |
| Naphthalene | 220 | 25.0 | ug/L | 400.00 | | 55.0 | 35.1-120 | | | |
| 4-Chloroaniline | 244 | 25.0 | ug/L | 400.00 | | 61.0 | 39.1-120 | | | |
| Hexachlorobutadiene | 161 | 25.0 | ug/L | 400.00 | | 40.4 | 21-120 | | | |
| 4-Chloro-3-methylphenol | 272 | 25.0 | ug/L | 400.00 | | 68.0 | 42.5-120 | | | |
| 2-Methylnaphthalene | 235 | 25.0 | ug/L | 400.00 | | 58.8 | 37-120 | | | |
| Hexachlorocyclopentadiene | 194 | 25.0 | ug/L | 400.00 | | 48.5 | 21.5-120 | | | |
| 2,4,6-Trichlorophenol | 265 | 25.0 | ug/L | 400.00 | | 66.4 | 43-120 | | | |
| 2,4,5-Trichlorophenol | 272 | 25.0 | ug/L | 400.00 | | 68.1 | 45-120 | | | |
| 2-Chloronaphthalene | 242 | 25.0 | ug/L | 400.00 | | 60.4 | 35.2-120 | | | |
| 2-Nitroaniline | 279 | 25.0 | ug/L | 400.00 | | 69.8 | 50.1-120 | | | |
| Dimethylphthalate | 285 | 50.0 | ug/L | 400.00 | | 71.4 | 48.2-125 | | | |
| 2,6-Dinitrotoluene | 287 | 25.0 | ug/L | 400.00 | | 71.8 | 55.8-120 | | | |
| Acenaphthylene | 265 | 25.0 | ug/L | 400.00 | | 66.2 | 42.1-120 | | | |
| Acenaphthene | 258 | 25.0 | ug/L | 400.00 | | 64.5 | 39.9-120 | | | |
| 3-Nitroaniline | 298 | 25.0 | ug/L | 400.00 | | 74.6 | 54.9-120 | | | |
| 2,4-Dinitrophenol | 262 | 100 | ug/L | 400.00 | | 65.4 | 42.2-126 | | | |
| 4-Nitrophenol | 146 | 50.0 | ug/L | 400.00 | | 36.4 | 22-120 | | | |
| Dibenzofuran | 263 | 25.0 | ug/L | 400.00 | | 65.7 | 40.7-120 | | | |
| 2,4-Dinitrotoluene | 303 | 25.0 | ug/L | 400.00 | | 75.6 | 56.7-122 | | | |
| Diethylphthalate | 299 | 50.0 | ug/L | 400.00 | | 74.7 | 57.7-120 | | | |
| 4-Chlorophenyl-phenylether | 276 | 25.0 | ug/L | 400.00 | | 69.0 | 36.6-126 | | | |
| Fluorene | 279 | 25.0 | ug/L | 400.00 | | 69.8 | 42.1-124 | | | |
| 4-Nitroaniline | 325 | 50.0 | ug/L | 400.00 | | 81.2 | 54.2-132 | | | |
| 4,6-Dinitro-2-methylphenol | 281 | 50.0 | ug/L | 400.00 | | 70.3 | 55.9-133 | | | |
| 4-Bromophenyl-phenylether | 304 | 25.0 | ug/L | 400.00 | | 76.1 | 34.8-133 | | | |
| Hexachlorobenzene | 303 | 25.0 | ug/L | 400.00 | | 75.6 | 34.4-132 | | | |
| Pentachlorophenol | 322 | 50.0 | ug/L | 400.00 | | 80.4 | 55.5-133 | | | |
| Phenanthrene | 290 | 25.0 | ug/L | 400.00 | | 72.4 | 43.6-128 | | | |
| Anthracene | 295 | 25.0 | ug/L | 400.00 | | 73.7 | 41.6-129 | | | |
| Carbazole | 306 | 25.0 | ug/L | 400.00 | | 76.4 | 64.5-123 | | | |
| Di-n-butylphthalate | 320 | 50.0 | ug/L | 400.00 | | 80.1 | 47.3-136 | | | |
| Fluoranthene | 314 | 25.0 | ug/L | 400.00 | | 78.4 | 42.9-137 | | | |
| Pyrene | 300 | 25.0 | ug/L | 400.00 | | 74.9 | 43.2-140 | | | |
| Butylbenzylphthalate | 320 | 50.0 | ug/L | 400.00 | | 80.1 | 42.5-146 | | | |
| Benzo(a)anthracene | 308 | 25.0 | ug/L | 400.00 | | 77.1 | 45.3-138 | | | |
| Bis(2-ethylhexyl)phthalate | 319 | 50.0 | ug/L | 400.00 | | 79.7 | 41.8-144 | | | |

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** LCS (C7I1402-BS1)
**Sp Source:**
**Analyzed Date:** Prepared: 09/13/17 Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Chrysene | 297 | 25.0 | ug/L | 400.00 | | 74.2 | 41.8-135 | | | |
| Di-n-octylphthalate | 330 | 50.0 | ug/L | 400.00 | | 82.4 | 41.5-149 | | | |
| Benzo(b)fluoranthene | 322 | 25.0 | ug/L | 400.00 | | 80.5 | 43.2-136 | | | |
| Benzo(k)fluoranthene | 327 | 25.0 | ug/L | 400.00 | | 81.8 | 44.9-134 | | | |
| Benzo(a)pyrene | 336 | 25.0 | ug/L | 400.00 | | 84.0 | 40.7-140 | | | |
| Indeno(1,2,3-cd)pyrene | 311 | 25.0 | ug/L | 400.00 | | 77.7 | 42.5-150 | | | |
| Dibenzo(a,h)anthracene | 314 | 25.0 | ug/L | 400.00 | | 78.4 | 30-148 | | | |
| Benzo(g,h,i)perylene | 287 | 25.0 | ug/L | 400.00 | | 71.8 | 37.9-145 | | | |
| *Surrogate: 2-Fluorophenol* | *153* | | *ug/L* | *400.00* | | *38.2* | *8.97-120* | | | |
| *Surrogate: Phenol-d6* | *107* | | *ug/L* | *400.00* | | *26.8* | *4.63-120* | | | |
| *Surrogate: Nitrobenzene-d5* | *231* | | *ug/L* | *400.00* | | *57.7* | *10-120* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *246* | | *ug/L* | *400.00* | | *61.4* | *10-120* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *331* | | *ug/L* | *400.00* | | *82.8* | *0.853-160* | | | |
| *Surrogate: Terphenyl-d14* | *317* | | *ug/L* | *400.00* | | *79.2* | *42-152* | | | |

**Instrument ID:** GC/MS #5
**Sample Header:** Matrix Spike (C7I1402-MS1)
**Sp Source:** Source: C17I006-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | 124 | 25.0 | ug/L | 400.00 | ND | 31.0 | 9.64-130 | | | |
| Bis(2-chloroethyl)ether | 207 | 25.0 | ug/L | 400.00 | ND | 51.8 | 34.7-130 | | | |
| 2-Chlorophenol | 201 | 25.0 | ug/L | 400.00 | ND | 50.3 | 30.8-130 | | | |
| 2-Methylphenol | 213 | 25.0 | ug/L | 400.00 | ND | 53.2 | 30.8-130 | | | |
| 2,2'-Oxybis(1-chloropropane) | 196 | 25.0 | ug/L | 400.00 | ND | 48.9 | 32-130 | | | |
| N-Nitroso-di-n-propylamine | 237 | 25.0 | ug/L | 400.00 | ND | 59.2 | 37.3-130 | | | |
| Hexachloroethane | 162 | 25.0 | ug/L | 400.00 | ND | 40.6 | 22.9-130 | | | |
| Nitrobenzene | 230 | 25.0 | ug/L | 400.00 | ND | 57.6 | 37.4-130 | | | |
| Isophorone | 272 | 25.0 | ug/L | 400.00 | ND | 67.9 | 43.8-130 | | | |
| 2-Nitrophenol | 232 | 25.0 | ug/L | 400.00 | ND | 58.1 | 35.4-130 | | | |
| 2,4-Dimethylphenol | 251 | 25.0 | ug/L | 400.00 | ND | 62.6 | 25-130 | | | |
| Bis(2-chloroethoxy)methane | 242 | 25.0 | ug/L | 400.00 | ND | 60.6 | 39.9-130 | | | |
| 2,4-Dichlorophenol | 256 | 25.0 | ug/L | 400.00 | 10.3 | 61.4 | 37.5-130 | | | |
| Naphthalene | 221 | 25.0 | ug/L | 400.00 | ND | 55.2 | 35.1-130 | | | |
| 4-Chloroaniline | 253 | 25.0 | ug/L | 400.00 | ND | 63.2 | 39.1-130 | | | |
| Hexachlorobutadiene | 183 | 25.0 | ug/L | 400.00 | ND | 45.8 | 21-130 | | | |
| 4-Chloro-3-methylphenol | 291 | 25.0 | ug/L | 400.00 | ND | 72.7 | 42.5-130 | | | |
| 2-Methylnaphthalene | 252 | 25.0 | ug/L | 400.00 | ND | 63.0 | 37-130 | | | |
| Hexachlorocyclopentadiene | 202 | 25.0 | ug/L | 400.00 | ND | 50.6 | 21.5-130 | | | |

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** Matrix Spike (C7I1402-MS1)
**Sp Source:** Source: C17I006-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4,6-Trichlorophenol | 286 | 25.0 | ug/L | 400.00 | ND | 71.5 | 43-130 | | | |
| 2,4,5-Trichlorophenol | 284 | 25.0 | ug/L | 400.00 | ND | 70.9 | 45-130 | | | |
| 2-Chloronaphthalene | 267 | 25.0 | ug/L | 400.00 | ND | 66.8 | 35.2-130 | | | |
| 2-Nitroaniline | 292 | 25.0 | ug/L | 400.00 | ND | 72.9 | 50.1-130 | | | |
| Dimethylphthalate | 292 | 50.0 | ug/L | 400.00 | ND | 73.0 | 48.1-125 | | | |
| 2,6-Dinitrotoluene | 295 | 25.0 | ug/L | 400.00 | ND | 73.6 | 55.8-130 | | | |
| Acenaphthylene | 287 | 25.0 | ug/L | 400.00 | ND | 71.7 | 42.1-130 | | | |
| Acenaphthene | 280 | 25.0 | ug/L | 400.00 | ND | 69.9 | 39.9-130 | | | |
| 3-Nitroaniline | 295 | 25.0 | ug/L | 400.00 | ND | 73.8 | 54.9-130 | | | |
| 2,4-Dinitrophenol | 275 | 100 | ug/L | 400.00 | ND | 68.6 | 42.2-130 | | | |
| 4-Nitrophenol | 204 | 50.0 | ug/L | 400.00 | ND | 51.1 | 22-130 | | | |
| Dibenzofuran | 286 | 25.0 | ug/L | 400.00 | ND | 71.5 | 40.7-130 | | | |
| 2,4-Dinitrotoluene | 293 | 25.0 | ug/L | 400.00 | ND | 73.2 | 56.7-130 | | | |
| Diethylphthalate | 298 | 50.0 | ug/L | 400.00 | ND | 74.5 | 57.5-130 | | | |
| 4-Chlorophenyl-phenylether | 294 | 25.0 | ug/L | 400.00 | ND | 73.6 | 36.6-130 | | | |
| Fluorene | 295 | 25.0 | ug/L | 400.00 | ND | 73.6 | 42.1-130 | | | |
| 4-Nitroaniline | 314 | 50.0 | ug/L | 400.00 | ND | 78.6 | 54.2-132 | | | |
| 4,6-Dinitro-2-methylphenol | 272 | 50.0 | ug/L | 400.00 | ND | 67.9 | 55.9-133 | | | |
| 4-Bromophenyl-phenylether | 318 | 25.0 | ug/L | 400.00 | ND | 79.6 | 34.8-133 | | | |
| Hexachlorobenzene | 304 | 25.0 | ug/L | 400.00 | ND | 76.1 | 34.4-132 | | | |
| Pentachlorophenol | 319 | 50.0 | ug/L | 400.00 | ND | 79.8 | 55.5-133 | | | |
| Phenanthrene | 295 | 25.0 | ug/L | 400.00 | ND | 73.6 | 43.6-130 | | | |
| Anthracene | 296 | 25.0 | ug/L | 400.00 | ND | 74.0 | 41.6-130 | | | |
| Carbazole | 293 | 25.0 | ug/L | 400.00 | ND | 73.2 | 64.5-130 | | | |
| Di-n-butylphthalate | 309 | 50.0 | ug/L | 400.00 | 25.5 | 70.9 | 47.3-136 | | | |
| Fluoranthene | 298 | 25.0 | ug/L | 400.00 | 9.20 | 72.2 | 42.9-137 | | | |
| Pyrene | 295 | 25.0 | ug/L | 400.00 | ND | 73.7 | 43.2-140 | | | |
| Butylbenzylphthalate | 313 | 50.0 | ug/L | 400.00 | ND | 78.3 | 42.5-146 | | | |
| Benzo(a)anthracene | 303 | 25.0 | ug/L | 400.00 | 11.1 | 72.9 | 45.3-138 | | | |
| Bis(2-ethylhexyl)phthalate | 315 | 50.0 | ug/L | 400.00 | 30.5 | 71.0 | 41.8-144 | | | |
| Chrysene | 295 | 25.0 | ug/L | 400.00 | ND | 73.6 | 41.8-135 | | | |
| Di-n-octylphthalate | 316 | 50.0 | ug/L | 400.00 | ND | 79.0 | 41.5-149 | | | |
| Benzo(b)fluoranthene | 303 | 25.0 | ug/L | 400.00 | 14.5 | 72.2 | 43.2-136 | | | |
| Benzo(k)fluoranthene | 304 | 25.0 | ug/L | 400.00 | 15.9 | 72.2 | 44.9-134 | | | |
| Benzo(a)pyrene | 316 | 25.0 | ug/L | 400.00 | 10.9 | 76.4 | 40.7-140 | | | |
| Indeno(1,2,3-cd)pyrene | 302 | 25.0 | ug/L | 400.00 | ND | 75.4 | 42.5-150 | | | |
| Dibenzo(a,h)anthracene | 305 | 25.0 | ug/L | 400.00 | ND | 76.3 | 30-148 | | | |
| Benzo(g,h,i)perylene | 284 | 25.0 | ug/L | 400.00 | ND | 71.1 | 37.9-145 | | | |
| *Surrogate: 2-Fluorophenol* | *154* | | *ug/L* | *400.00* | | *38.4* | *0-120* | | | |
| *Surrogate: Phenol-d6* | *126* | | *ug/L* | *400.00* | | *31.6* | *1.78-120* | | | |
| *Surrogate: Nitrobenzene-d5* | *227* | | *ug/L* | *400.00* | | *56.7* | *4.97-120* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *268* | | *ug/L* | *400.00* | | *67.1* | *6.08-120* | | | |

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** Matrix Spike (C7I1402-MS1)
**Sp Source:** Source: C17I006-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| *Surrogate: 2,4,6-Tribromophenol* | *324* | | *ug/L* | *400.00* | | *81.0* | *1.77-120* | | | |
| *Surrogate: Terphenyl-d14* | *311* | | *ug/L* | *400.00* | | *77.7* | *21.1-160* | | | |

**Instrument ID:** GC/MS #5
**Sample Header:** Matrix Spike Dup (C7I1402-MSD2)
**Sp Source:** Source: C17I006-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Phenol | 115 | 25.0 | ug/L | 400.00 | ND | 28.8 | 9.64-130 | 7.53 | 31.5 | |
| Bis(2-chloroethyl)ether | 249 | 25.0 | ug/L | 400.00 | ND | 62.3 | 34.7-130 | 18.5 | 34.1 | |
| 2-Chlorophenol | 245 | 25.0 | ug/L | 400.00 | ND | 61.4 | 30.8-130 | 19.8 | 32.5 | |
| 2-Methylphenol | 233 | 25.0 | ug/L | 400.00 | ND | 58.2 | 30.8-130 | 8.98 | 30 | |
| 2,2'-Oxybis(1-chloropropane) | 239 | 25.0 | ug/L | 400.00 | ND | 59.8 | 32-130 | 20.0 | 30.8 | |
| N-Nitroso-di-n-propylamine | 268 | 25.0 | ug/L | 400.00 | ND | 67.0 | 37.3-130 | 12.3 | 30 | |
| Hexachloroethane | 178 | 25.0 | ug/L | 400.00 | ND | 44.5 | 22.9-130 | 9.34 | 35.7 | |
| Nitrobenzene | 268 | 25.0 | ug/L | 400.00 | ND | 67.0 | 37.4-130 | 15.2 | 30.3 | |
| Isophorone | 296 | 25.0 | ug/L | 400.00 | ND | 74.0 | 43.8-130 | 8.56 | 30 | |
| 2-Nitrophenol | 270 | 25.0 | ug/L | 400.00 | ND | 67.4 | 35.4-130 | 14.8 | 30 | |
| 2,4-Dimethylphenol | 270 | 25.0 | ug/L | 400.00 | ND | 67.4 | 25-130 | 7.30 | 30 | |
| Bis(2-chloroethoxy)methane | 274 | 25.0 | ug/L | 400.00 | ND | 68.4 | 39.9-130 | 12.2 | 30 | |
| 2,4-Dichlorophenol | 280 | 25.0 | ug/L | 400.00 | 10.3 | 67.4 | 37.5-130 | 9.03 | 30 | |
| Naphthalene | 251 | 25.0 | ug/L | 400.00 | ND | 62.8 | 35.1-130 | 12.9 | 30.4 | |
| 4-Chloroaniline | 284 | 25.0 | ug/L | 400.00 | ND | 70.9 | 39.1-130 | 11.6 | 30 | |
| Hexachlorobutadiene | 196 | 25.0 | ug/L | 400.00 | ND | 49.1 | 21-130 | 7.01 | 42.6 | |
| 4-Chloro-3-methylphenol | 301 | 25.0 | ug/L | 400.00 | ND | 75.3 | 42.5-130 | 3.58 | 30 | |
| 2-Methylnaphthalene | 273 | 25.0 | ug/L | 400.00 | ND | 68.2 | 37-130 | 7.92 | 30 | |
| Hexachlorocyclopentadiene | 232 | 25.0 | ug/L | 400.00 | ND | 58.0 | 21.5-130 | 13.6 | 46.5 | |
| 2,4,6-Trichlorophenol | 301 | 25.0 | ug/L | 400.00 | ND | 75.3 | 43-130 | 5.14 | 30 | |
| 2,4,5-Trichlorophenol | 304 | 25.0 | ug/L | 400.00 | ND | 75.9 | 45-130 | 6.84 | 30 | |
| 2-Chloronaphthalene | 281 | 25.0 | ug/L | 400.00 | ND | 70.4 | 35.2-130 | 5.14 | 30 | |
| 2-Nitroaniline | 310 | 25.0 | ug/L | 400.00 | ND | 77.4 | 50.1-130 | 6.02 | 30 | |
| Dimethylphthalate | 308 | 50.0 | ug/L | 400.00 | ND | 77.0 | 48.1-125 | 5.30 | 30 | |
| 2,6-Dinitrotoluene | 312 | 25.0 | ug/L | 400.00 | ND | 77.9 | 55.8-130 | 5.61 | 30 | |
| Acenaphthylene | 303 | 25.0 | ug/L | 400.00 | ND | 75.8 | 42.1-130 | 5.59 | 30 | |
| Acenaphthene | 295 | 25.0 | ug/L | 400.00 | ND | 73.8 | 39.9-130 | 5.43 | 31.1 | |
| 3-Nitroaniline | 316 | 25.0 | ug/L | 400.00 | ND | 79.0 | 54.9-130 | 6.71 | 30 | |
| 2,4-Dinitrophenol | 316 | 100 | ug/L | 400.00 | ND | 78.9 | 42.2-130 | 13.9 | 45.4 | |
| 4-Nitrophenol | 149 | 50.0 | ug/L | 400.00 | ND | 37.3 | 22-130 | 31.2 | 33.5 | |
| Dibenzofuran | 299 | 25.0 | ug/L | 400.00 | ND | 74.7 | 40.7-130 | 4.34 | 30 | |

**Method:** Semivolatile Organic Compounds by EPA Method 8270D - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1402 - 3510C
**Instrument ID:** GC/MS #5
**Sample Header:** Matrix Spike Dup (C7I1402-MSD2)
**Sp Source:** Source: C17I006-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 2,4-Dinitrotoluene | 316 | 25.0 | ug/L | 400.00 | ND | 78.9 | 56.7-130 | 7.53 | 30 | |
| Diethylphthalate | 316 | 50.0 | ug/L | 400.00 | ND | 79.1 | 57.5-130 | 6.02 | 30 | |
| 4-Chlorophenyl-phenylether | 310 | 25.0 | ug/L | 400.00 | ND | 77.6 | 36.6-130 | 5.26 | 47.5 | |
| Fluorene | 308 | 25.0 | ug/L | 400.00 | ND | 76.9 | 42.1-130 | 4.35 | 36.8 | |
| 4-Nitroaniline | 338 | 50.0 | ug/L | 400.00 | ND | 84.4 | 54.2-132 | 7.21 | 38.3 | |
| 4,6-Dinitro-2-methylphenol | 296 | 50.0 | ug/L | 400.00 | ND | 74.1 | 55.9-133 | 8.77 | 30 | |
| 4-Bromophenyl-phenylether | 337 | 25.0 | ug/L | 400.00 | ND | 84.3 | 34.8-133 | 5.77 | 46.2 | |
| Hexachlorobenzene | 325 | 25.0 | ug/L | 400.00 | ND | 81.2 | 34.4-132 | 6.49 | 52.2 | |
| Pentachlorophenol | 337 | 50.0 | ug/L | 400.00 | ND | 84.2 | 55.5-133 | 5.37 | 30 | |
| Phenanthrene | 311 | 25.0 | ug/L | 400.00 | ND | 77.6 | 43.6-130 | 5.29 | 41.5 | |
| Anthracene | 315 | 25.0 | ug/L | 400.00 | ND | 78.7 | 41.6-130 | 6.12 | 45.7 | |
| Carbazole | 318 | 25.0 | ug/L | 400.00 | ND | 79.4 | 64.5-130 | 8.23 | 30 | |
| Di-n-butylphthalate | 333 | 50.0 | ug/L | 400.00 | 25.5 | 77.0 | 47.3-136 | 7.50 | 53.4 | |
| Fluoranthene | 322 | 25.0 | ug/L | 400.00 | 9.20 | 78.2 | 42.9-137 | 7.78 | 60.4 | |
| Pyrene | 320 | 25.0 | ug/L | 400.00 | ND | 80.0 | 43.2-140 | 8.26 | 57.7 | |
| Butylbenzylphthalate | 341 | 50.0 | ug/L | 400.00 | ND | 85.4 | 42.5-146 | 8.62 | 57.7 | |
| Benzo(a)anthracene | 327 | 25.0 | ug/L | 400.00 | 11.1 | 78.9 | 45.3-138 | 7.69 | 59.9 | |
| Bis(2-ethylhexyl)phthalate | 340 | 50.0 | ug/L | 400.00 | 30.5 | 77.4 | 41.8-144 | 7.73 | 63.7 | |
| Chrysene | 317 | 25.0 | ug/L | 400.00 | ND | 79.3 | 41.8-135 | 7.39 | 57.3 | |
| Di-n-octylphthalate | 346 | 50.0 | ug/L | 400.00 | ND | 86.5 | 41.5-149 | 9.09 | 60.9 | |
| Benzo(b)fluoranthene | 334 | 25.0 | ug/L | 400.00 | 14.5 | 79.9 | 43.2-136 | 9.63 | 59.2 | |
| Benzo(k)fluoranthene | 339 | 25.0 | ug/L | 400.00 | 15.9 | 80.7 | 44.9-134 | 10.6 | 57.2 | |
| Benzo(a)pyrene | 352 | 25.0 | ug/L | 400.00 | 10.9 | 85.2 | 40.7-140 | 10.5 | 55.8 | |
| Indeno(1,2,3-cd)pyrene | 321 | 25.0 | ug/L | 400.00 | ND | 80.2 | 42.5-150 | 6.14 | 74 | |
| Dibenzo(a,h)anthracene | 334 | 25.0 | ug/L | 400.00 | ND | 83.5 | 30-148 | 9.04 | 56.2 | |
| Benzo(g,h,i)perylene | 304 | 25.0 | ug/L | 400.00 | ND | 75.9 | 37.9-145 | 6.50 | 59.1 | |
| *Surrogate: 2-Fluorophenol* | *162* | | *ug/L* | *400.00* | | *40.4* | *0-120* | | | |
| *Surrogate: Phenol-d6* | *114* | | *ug/L* | *400.00* | | *28.6* | *1.78-120* | | | |
| *Surrogate: Nitrobenzene-d5* | *268* | | *ug/L* | *400.00* | | *67.0* | *4.97-120* | | | |
| *Surrogate: 2-Fluorobiphenyl* | *292* | | *ug/L* | *400.00* | | *73.0* | *6.08-120* | | | |
| *Surrogate: 2,4,6-Tribromophenol* | *343* | | *ug/L* | *400.00* | | *85.7* | *1.77-120* | | | |
| *Surrogate: Terphenyl-d14* | *342* | | *ug/L* | *400.00* | | *85.5* | *21.1-160* | | | |

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1401 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** Blank (C7I1401-BLK1)
**Sp Source:**
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | ND | 2.00 | ug/L | | | | | | | U |
| Chloromethane | ND | 2.00 | ug/L | | | | | | | U |
| Vinyl chloride | ND | 2.00 | ug/L | | | | | | | U |
| Bromomethane | ND | 2.00 | ug/L | | | | | | | U |
| Chloroethane | ND | 2.00 | ug/L | | | | | | | U |
| Trichlorofluoromethane | ND | 2.00 | ug/L | | | | | | | U |
| 1,1-Dichloroethene | ND | 2.00 | ug/L | | | | | | | U |
| Methylene chloride | ND | 5.00 | ug/L | | | | | | | U |
| Methyl tert-butyl ether | ND | 2.00 | ug/L | | | | | | | U |
| trans-1,2-Dichloroethene | ND | 2.00 | ug/L | | | | | | | U |
| 1,1-Dichloroethane | ND | 2.00 | ug/L | | | | | | | U |
| cis-1,2-Dichloroethene | ND | 2.00 | ug/L | | | | | | | U |
| Bromochloromethane | ND | 2.00 | ug/L | | | | | | | U |
| Chloroform | ND | 2.00 | ug/L | | | | | | | U |
| Carbon tetrachloride | ND | 2.00 | ug/L | | | | | | | U |
| 1,1,1-Trichloroethane | ND | 2.00 | ug/L | | | | | | | U |
| 2-Butanone | ND | 10.0 | ug/L | | | | | | | U |
| Benzene | ND | 2.00 | ug/L | | | | | | | U |
| 1,2-Dichloroethane | ND | 2.00 | ug/L | | | | | | | U |
| Trichloroethene | ND | 2.00 | ug/L | | | | | | | U |
| 1,2-Dichloropropane | ND | 2.00 | ug/L | | | | | | | U |
| Bromodichloromethane | ND | 2.00 | ug/L | | | | | | | U |
| cis-1,3-Dichloropropene | ND | 2.00 | ug/L | | | | | | | U |
| Toluene | ND | 2.00 | ug/L | | | | | | | U |
| Tetrachloroethene | ND | 2.00 | ug/L | | | | | | | U |
| trans-1,3-Dichloropropene | ND | 2.00 | ug/L | | | | | | | U |
| 4-Methyl-2-pentanone | ND | 10.0 | ug/L | | | | | | | U |
| 1,1,2-Trichloroethane | ND | 2.00 | ug/L | | | | | | | U |
| Dibromochloromethane | ND | 2.00 | ug/L | | | | | | | U |
| 1,2-Dibromoethane | ND | 2.00 | ug/L | | | | | | | U |
| 2-Hexanone | ND | 10.0 | ug/L | | | | | | | U |
| Chlorobenzene | ND | 2.00 | ug/L | | | | | | | U |
| Ethylbenzene | ND | 2.00 | ug/L | | | | | | | U |
| m,p-Xylene | ND | 6.00 | ug/L | | | | | | | U |
| o-Xylene | ND | 2.00 | ug/L | | | | | | | U |
| Xylene (total) | ND | 6.00 | ug/L | | | | | | | U |
| Bromoform | ND | 2.00 | ug/L | | | | | | | U |
| Styrene | ND | 2.00 | ug/L | | | | | | | U |
| Isopropylbenzene | ND | 2.00 | ug/L | | | | | | | U |
| 1,1,2,2-Tetrachloroethane | ND | 2.00 | ug/L | | | | | | | U |
| 1,3-Dichlorobenzene | ND | 2.00 | ug/L | | | | | | | U |
| 1,4-Dichlorobenzene | ND | 2.00 | ug/L | | | | | | | U |

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1401 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** Blank (C7I1401-BLK1)
**Sp Source:**
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | ND | 2.00 | ug/L | | | | | | | U |
| 1,2-Dibromo-3-chloropropane | ND | 5.00 | ug/L | | | | | | | U |
| 1,2,4-Trichlorobenzene | ND | 2.00 | ug/L | | | | | | | U |
| 1,2,3-Trichlorobenzene | ND | 2.00 | ug/L | | | | | | | U |
| *Surrogate: 1,2-Dichloroethane-d4* | *55.9* | | *ug/L* | *50.000* | | *112* | *80-120* | | | |
| *Surrogate: Toluene-d8* | *49.2* | | *ug/L* | *50.000* | | *98.4* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *53.4* | | *ug/L* | *50.000* | | *107* | *80-120* | | | |

**Instrument ID:** GC/MS #4
**Sample Header:** LCS (C7I1401-BS1)
**Sp Source:**
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 21.8 | 2.00 | ug/L | 20.000 | | 109 | 35.3-145 | | | |
| Chloromethane | 22.4 | 2.00 | ug/L | 20.000 | | 112 | 62.9-129 | | | |
| Vinyl chloride | 20.2 | 2.00 | ug/L | 20.000 | | 101 | 71.7-126 | | | |
| Bromomethane | 20.7 | 2.00 | ug/L | 20.000 | | 103 | 77.7-121 | | | |
| Chloroethane | 20.2 | 2.00 | ug/L | 20.000 | | 101 | 77.2-121 | | | |
| Trichlorofluoromethane | 21.0 | 2.00 | ug/L | 20.000 | | 105 | 78.2-120 | | | |
| 1,1-Dichloroethene | 19.5 | 2.00 | ug/L | 20.000 | | 97.6 | 85.7-120 | | | |
| Methylene chloride | 22.4 | 5.00 | ug/L | 20.000 | | 112 | 80-120 | | | |
| Methyl tert-butyl ether | 23.0 | 2.00 | ug/L | 20.000 | | 115 | 78.6-126 | | | |
| trans-1,2-Dichloroethene | 20.0 | 2.00 | ug/L | 20.000 | | 100 | 74.6-136 | | | |
| 1,1-Dichloroethane | 20.0 | 2.00 | ug/L | 20.000 | | 99.8 | 63.4-148 | | | |
| cis-1,2-Dichloroethene | 19.8 | 2.00 | ug/L | 20.000 | | 98.8 | 80-122 | | | |
| Bromochloromethane | 20.7 | 2.00 | ug/L | 20.000 | | 104 | 80-120 | | | |
| Chloroform | 20.6 | 2.00 | ug/L | 20.000 | | 103 | 80-120 | | | |
| Carbon tetrachloride | 20.4 | 2.00 | ug/L | 20.000 | | 102 | 80-122 | | | |
| 1,1,1-Trichloroethane | 20.2 | 2.00 | ug/L | 20.000 | | 101 | 80-121 | | | |
| 2-Butanone | 120 | 10.0 | ug/L | 100.00 | | 120 | 75.9-130 | | | |
| Benzene | 19.4 | 2.00 | ug/L | 20.000 | | 97.2 | 80-120 | | | |
| 1,2-Dichloroethane | 22.4 | 2.00 | ug/L | 20.000 | | 112 | 80-127 | | | |
| Trichloroethene | 19.5 | 2.00 | ug/L | 20.000 | | 97.6 | 80-122 | | | |
| 1,2-Dichloropropane | 21.4 | 2.00 | ug/L | 20.000 | | 107 | 80-123 | | | |
| Bromodichloromethane | 20.6 | 2.00 | ug/L | 20.000 | | 103 | 80-128 | | | |
| cis-1,3-Dichloropropene | 20.8 | 2.00 | ug/L | 20.000 | | 104 | 77-125 | | | |
| Toluene | 19.7 | 2.00 | ug/L | 20.000 | | 98.4 | 80-120 | | | |
| Tetrachloroethene | 20.2 | 2.00 | ug/L | 20.000 | | 101 | 80-120 | | | |
| trans-1,3-Dichloropropene | 21.0 | 2.00 | ug/L | 20.000 | | 105 | 78.1-123 | | | |

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1401 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** LCS (C7I1401-BS1)
**Sp Source:**
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 4-Methyl-2-pentanone | 117 | 10.0 | ug/L | 100.00 | | 117 | 75.4-124 | | | |
| 1,1,2-Trichloroethane | 22.0 | 2.00 | ug/L | 20.000 | | 110 | 80-121 | | | |
| Dibromochloromethane | 21.3 | 2.00 | ug/L | 20.000 | | 106 | 75.6-135 | | | |
| 1,2-Dibromoethane | 21.1 | 2.00 | ug/L | 20.000 | | 106 | 80-123 | | | |
| 2-Hexanone | 120 | 10.0 | ug/L | 100.00 | | 120 | 73.8-128 | | | |
| Chlorobenzene | 20.6 | 2.00 | ug/L | 20.000 | | 103 | 83-120 | | | |
| Ethylbenzene | 19.4 | 2.00 | ug/L | 20.000 | | 97.2 | 80-120 | | | |
| m,p-Xylene | 39.6 | 6.00 | ug/L | 40.000 | | 98.9 | 80-120 | | | |
| o-Xylene | 19.2 | 2.00 | ug/L | 20.000 | | 95.8 | 80-120 | | | |
| Xylene (total) | 58.7 | 6.00 | ug/L | 60.000 | | 97.8 | 80-120 | | | |
| Bromoform | 22.2 | 2.00 | ug/L | 20.000 | | 111 | 67-142 | | | |
| Styrene | 19.6 | 2.00 | ug/L | 20.000 | | 98.2 | 80-120 | | | |
| Isopropylbenzene | 20.1 | 2.00 | ug/L | 20.000 | | 100 | 80-120 | | | |
| 1,1,2,2-Tetrachloroethane | 25.2 | 2.00 | ug/L | 20.000 | | 126 | 30.3-164 | | | |
| 1,3-Dichlorobenzene | 21.1 | 2.00 | ug/L | 20.000 | | 105 | 80-120 | | | |
| 1,4-Dichlorobenzene | 21.2 | 2.00 | ug/L | 20.000 | | 106 | 80-120 | | | |
| 1,2-Dichlorobenzene | 21.2 | 2.00 | ug/L | 20.000 | | 106 | 80-120 | | | |
| 1,2-Dibromo-3-chloropropane | 21.0 | 5.00 | ug/L | 20.000 | | 105 | 80-120 | | | |
| 1,2,4-Trichlorobenzene | 20.8 | 2.00 | ug/L | 20.000 | | 104 | 80-119 | | | |
| 1,2,3-Trichlorobenzene | 21.7 | 2.00 | ug/L | 20.000 | | 109 | 80-120 | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *55.3* | | *ug/L* | *50.000* | | *111* | *80-120* | | | |
| *Surrogate: Toluene-d8* | *49.9* | | *ug/L* | *50.000* | | *99.9* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.7* | | *ug/L* | *50.000* | | *103* | *80-120* | | | |

**Instrument ID:** GC/MS #4
**Sample Header:** Matrix Spike (C7I1401-MS1)
**Sp Source:** Source: C17I008-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 22.1 | 2.00 | ug/L | 20.000 | ND | 110 | 35.3-145 | | | |
| Chloromethane | 21.0 | 2.00 | ug/L | 20.000 | ND | 105 | 62.9-129 | | | |
| Vinyl chloride | 20.0 | 2.00 | ug/L | 20.000 | ND | 99.9 | 70-130 | | | |
| Bromomethane | 18.7 | 2.00 | ug/L | 20.000 | ND | 93.6 | 70-130 | | | |
| Chloroethane | 19.2 | 2.00 | ug/L | 20.000 | ND | 95.8 | 70-130 | | | |
| Trichlorofluoromethane | 21.3 | 2.00 | ug/L | 20.000 | ND | 106 | 70-130 | | | |
| 1,1-Dichloroethene | 19.9 | 2.00 | ug/L | 20.000 | ND | 99.5 | 70-130 | | | |
| Methylene chloride | 20.7 | 5.00 | ug/L | 20.000 | 1.19 | 97.6 | 70-130 | | | |
| Methyl tert-butyl ether | 20.2 | 2.00 | ug/L | 20.000 | ND | 101 | 70-130 | | | |
| trans-1,2-Dichloroethene | 19.3 | 2.00 | ug/L | 20.000 | ND | 96.6 | 70-136 | | | |

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1401 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** Matrix Spike (C7I1401-MS1)
**Sp Source:** Source: C17I008-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,1-Dichloroethane | 19.4 | 2.00 | ug/L | 20.000 | ND | 97.0 | 63.4-148 | | | |
| cis-1,2-Dichloroethene | 18.1 | 2.00 | ug/L | 20.000 | ND | 90.4 | 70-130 | | | |
| Bromochloromethane | 18.9 | 2.00 | ug/L | 20.000 | ND | 94.6 | 70-130 | | | |
| Chloroform | 20.0 | 2.00 | ug/L | 20.000 | ND | 100 | 70-130 | | | |
| Carbon tetrachloride | 20.4 | 2.00 | ug/L | 20.000 | ND | 102 | 70-130 | | | |
| 1,1,1-Trichloroethane | 20.2 | 2.00 | ug/L | 20.000 | ND | 101 | 70-130 | | | |
| 2-Butanone | 105 | 10.0 | ug/L | 100.00 | ND | 105 | 70-130 | | | |
| Benzene | 18.5 | 2.00 | ug/L | 20.000 | ND | 92.6 | 70-130 | | | |
| 1,2-Dichloroethane | 20.6 | 2.00 | ug/L | 20.000 | ND | 103 | 70-130 | | | |
| Trichloroethene | 17.9 | 2.00 | ug/L | 20.000 | ND | 89.5 | 70-130 | | | |
| 1,2-Dichloropropane | 19.6 | 2.00 | ug/L | 20.000 | ND | 98.2 | 70-130 | | | |
| Bromodichloromethane | 19.8 | 2.00 | ug/L | 20.000 | ND | 99.2 | 70-130 | | | |
| cis-1,3-Dichloropropene | 18.9 | 2.00 | ug/L | 20.000 | ND | 94.4 | 70-130 | | | |
| Toluene | 18.5 | 2.00 | ug/L | 20.000 | ND | 92.3 | 70-130 | | | |
| Tetrachloroethene | 19.0 | 2.00 | ug/L | 20.000 | ND | 95.1 | 70-130 | | | |
| trans-1,3-Dichloropropene | 19.0 | 2.00 | ug/L | 20.000 | ND | 95.1 | 70-130 | | | |
| 4-Methyl-2-pentanone | 106 | 10.0 | ug/L | 100.00 | ND | 106 | 70-130 | | | |
| 1,1,2-Trichloroethane | 20.2 | 2.00 | ug/L | 20.000 | ND | 101 | 70-130 | | | |
| Dibromochloromethane | 19.3 | 2.00 | ug/L | 20.000 | ND | 96.5 | 70-135 | | | |
| 1,2-Dibromoethane | 19.9 | 2.00 | ug/L | 20.000 | ND | 99.7 | 70-130 | | | |
| 2-Hexanone | 105 | 10.0 | ug/L | 100.00 | ND | 105 | 70-130 | | | |
| Chlorobenzene | 18.8 | 2.00 | ug/L | 20.000 | ND | 94.0 | 70-130 | | | |
| Ethylbenzene | 18.4 | 2.00 | ug/L | 20.000 | 0.780 | 88.2 | 70-130 | | | |
| m,p-Xylene | 37.4 | 6.00 | ug/L | 40.000 | 1.82 | 88.9 | 70-130 | | | |
| o-Xylene | 18.0 | 2.00 | ug/L | 20.000 | ND | 89.9 | 70-130 | | | |
| Xylene (total) | 55.4 | 6.00 | ug/L | 60.000 | 1.82 | 89.2 | 70-130 | | | |
| Bromoform | 20.0 | 2.00 | ug/L | 20.000 | ND | 99.8 | 67-142 | | | |
| Styrene | 17.6 | 2.00 | ug/L | 20.000 | ND | 88.2 | 70-130 | | | |
| Isopropylbenzene | 19.1 | 2.00 | ug/L | 20.000 | ND | 95.4 | 70-130 | | | |
| 1,1,2,2-Tetrachloroethane | 23.0 | 2.00 | ug/L | 20.000 | ND | 115 | 30.3-164 | | | |
| 1,3-Dichlorobenzene | 19.9 | 2.00 | ug/L | 20.000 | ND | 99.7 | 70-130 | | | |
| 1,4-Dichlorobenzene | 19.5 | 2.00 | ug/L | 20.000 | ND | 97.4 | 70-130 | | | |
| 1,2-Dichlorobenzene | 19.3 | 2.00 | ug/L | 20.000 | ND | 96.4 | 70-130 | | | |
| 1,2-Dibromo-3-chloropropane | 21.8 | 5.00 | ug/L | 20.000 | ND | 109 | 70-130 | | | |
| 1,2,4-Trichlorobenzene | 18.2 | 2.00 | ug/L | 20.000 | ND | 91.0 | 70-130 | | | |
| 1,2,3-Trichlorobenzene | 19.2 | 2.00 | ug/L | 20.000 | ND | 95.8 | 70-130 | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *57.2* | | *ug/L* | *50.000* | | *114* | *70-130* | | | |
| *Surrogate: Toluene-d8* | *50.4* | | *ug/L* | *50.000* | | *101* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.0* | | *ug/L* | *50.000* | | *104* | *70-130* | | | |

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1401 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** Matrix Spike Dup (C7I1401-MSD1)
**Sp Source:** Source: C17I008-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Dichlorodifluoromethane | 19.0 | 2.00 | ug/L | 20.000 | ND | 95.2 | 35.3-145 | 14.7 | 30 | |
| Chloromethane | 18.1 | 2.00 | ug/L | 20.000 | ND | 90.5 | 62.9-129 | 14.7 | 30 | |
| Vinyl chloride | 19.7 | 2.00 | ug/L | 20.000 | ND | 98.7 | 70-130 | 1.21 | 30 | |
| Bromomethane | 18.0 | 2.00 | ug/L | 20.000 | ND | 90.0 | 70-130 | 3.92 | 30 | |
| Chloroethane | 18.5 | 2.00 | ug/L | 20.000 | ND | 92.6 | 70-130 | 3.45 | 30 | |
| Trichlorofluoromethane | 20.1 | 2.00 | ug/L | 20.000 | ND | 100 | 70-130 | 5.85 | 30 | |
| 1,1-Dichloroethene | 19.2 | 2.00 | ug/L | 20.000 | ND | 95.9 | 70-130 | 3.68 | 30 | |
| Methylene chloride | 19.5 | 5.00 | ug/L | 20.000 | 1.19 | 91.6 | 70-130 | 5.87 | 30 | |
| Methyl tert-butyl ether | 20.1 | 2.00 | ug/L | 20.000 | ND | 101 | 70-130 | 0.545 | 30 | |
| trans-1,2-Dichloroethene | 18.2 | 2.00 | ug/L | 20.000 | ND | 90.9 | 70-136 | 6.08 | 30 | |
| 1,1-Dichloroethane | 18.8 | 2.00 | ug/L | 20.000 | ND | 94.2 | 63.4-148 | 2.93 | 30 | |
| cis-1,2-Dichloroethene | 17.7 | 2.00 | ug/L | 20.000 | ND | 88.4 | 70-130 | 2.29 | 30 | |
| Bromochloromethane | 18.1 | 2.00 | ug/L | 20.000 | ND | 90.6 | 70-130 | 4.37 | 30 | |
| Chloroform | 19.0 | 2.00 | ug/L | 20.000 | ND | 94.9 | 70-130 | 5.33 | 30 | |
| Carbon tetrachloride | 19.1 | 2.00 | ug/L | 20.000 | ND | 95.4 | 70-130 | 6.78 | 30 | |
| 1,1,1-Trichloroethane | 19.6 | 2.00 | ug/L | 20.000 | ND | 97.8 | 70-130 | 3.22 | 30 | |
| 2-Butanone | 104 | 10.0 | ug/L | 100.00 | ND | 104 | 70-130 | 0.701 | 30 | |
| Benzene | 17.9 | 2.00 | ug/L | 20.000 | ND | 89.6 | 70-130 | 3.29 | 30 | |
| 1,2-Dichloroethane | 19.6 | 2.00 | ug/L | 20.000 | ND | 98.2 | 70-130 | 4.87 | 30 | |
| Trichloroethene | 17.1 | 2.00 | ug/L | 20.000 | ND | 85.5 | 70-130 | 4.57 | 30 | |
| 1,2-Dichloropropane | 18.4 | 2.00 | ug/L | 20.000 | ND | 92.2 | 70-130 | 6.30 | 30 | |
| Bromodichloromethane | 18.8 | 2.00 | ug/L | 20.000 | ND | 94.0 | 70-130 | 5.28 | 30 | |
| cis-1,3-Dichloropropene | 18.9 | 2.00 | ug/L | 20.000 | ND | 94.6 | 70-130 | 0.264 | 30 | |
| Toluene | 18.4 | 2.00 | ug/L | 20.000 | ND | 92.0 | 70-130 | 0.326 | 30 | |
| Tetrachloroethene | 18.7 | 2.00 | ug/L | 20.000 | ND | 93.4 | 70-130 | 1.86 | 30 | |
| trans-1,3-Dichloropropene | 19.6 | 2.00 | ug/L | 20.000 | ND | 98.0 | 70-130 | 3.05 | 30 | |
| 4-Methyl-2-pentanone | 108 | 10.0 | ug/L | 100.00 | ND | 108 | 70-130 | 2.07 | 30 | |
| 1,1,2-Trichloroethane | 19.6 | 2.00 | ug/L | 20.000 | ND | 97.8 | 70-130 | 3.37 | 30 | |
| Dibromochloromethane | 19.1 | 2.00 | ug/L | 20.000 | ND | 95.4 | 70-135 | 1.09 | 30 | |
| 1,2-Dibromoethane | 19.5 | 2.00 | ug/L | 20.000 | ND | 97.4 | 70-130 | 2.28 | 30 | |
| 2-Hexanone | 108 | 10.0 | ug/L | 100.00 | ND | 108 | 70-130 | 2.89 | 30 | |
| Chlorobenzene | 18.5 | 2.00 | ug/L | 20.000 | ND | 92.6 | 70-130 | 1.45 | 30 | |
| Ethylbenzene | 18.0 | 2.00 | ug/L | 20.000 | 0.780 | 86.3 | 70-130 | 2.14 | 30 | |
| m,p-Xylene | 36.6 | 6.00 | ug/L | 40.000 | 1.82 | 87.0 | 70-130 | 2.08 | 30 | |
| o-Xylene | 18.1 | 2.00 | ug/L | 20.000 | ND | 90.4 | 70-130 | 0.555 | 30 | |
| Xylene (total) | 54.7 | 6.00 | ug/L | 60.000 | 1.82 | 88.1 | 70-130 | 1.22 | 30 | |
| Bromoform | 20.7 | 2.00 | ug/L | 20.000 | ND | 104 | 67-142 | 3.79 | 30 | |
| Styrene | 17.4 | 2.00 | ug/L | 20.000 | ND | 87.2 | 70-130 | 1.20 | 30 | |
| Isopropylbenzene | 18.7 | 2.00 | ug/L | 20.000 | ND | 93.4 | 70-130 | 2.12 | 30 | |
| 1,1,2,2-Tetrachloroethane | 23.2 | 2.00 | ug/L | 20.000 | ND | 116 | 30.3-164 | 0.606 | 30 | |
| 1,3-Dichlorobenzene | 19.0 | 2.00 | ug/L | 20.000 | ND | 95.0 | 70-130 | 4.83 | 30 | |
| 1,4-Dichlorobenzene | 19.0 | 2.00 | ug/L | 20.000 | ND | 95.0 | 70-130 | 2.44 | 30 | |

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1401 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** Matrix Spike Dup (C7I1401-MSD1)
**Sp Source:** Source: C17I008-01
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2-Dichlorobenzene | 19.2 | 2.00 | ug/L | 20.000 | ND | 96.0 | 70-130 | 0.416 | 30 | |
| 1,2-Dibromo-3-chloropropane | 19.8 | 5.00 | ug/L | 20.000 | ND | 99.2 | 70-130 | 9.13 | 30 | |
| 1,2,4-Trichlorobenzene | 17.8 | 2.00 | ug/L | 20.000 | ND | 89.1 | 70-130 | 2.11 | 30 | |
| 1,2,3-Trichlorobenzene | 19.0 | 2.00 | ug/L | 20.000 | ND | 95.1 | 70-130 | 0.681 | 30 | |
| *Surrogate: 1,2-Dichloroethane-d4* | *54.8* | | *ug/L* | *50.000* | | *110* | *70-130* | | | |
| *Surrogate: Toluene-d8* | *50.6* | | *ug/L* | *50.000* | | *101* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *52.2* | | *ug/L* | *50.000* | | *104* | *70-130* | | | |

**Batch ID:** Batch C7I1501 - 5030C
**Instrument ID:** GC/MS #4
**Sample Header:** Blank (C7I1501-BLK1)
**Sp Source:**
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | ND | 10.0 | ug/L | | | | | | | U |
| *Surrogate: 1,2-Dichloroethane-d4* | *41.0* | | *ug/L* | *50.000* | | *81.9* | *80-120* | | | |
| *Surrogate: Toluene-d8* | *49.1* | | *ug/L* | *50.000* | | *98.2* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *49.3* | | *ug/L* | *50.000* | | *98.7* | *80-120* | | | |

**Instrument ID:** GC/MS #4
**Sample Header:** LCS (C7I1501-BS1)
**Sp Source:**
**Analyzed Date:** Prepared & Analyzed: 09/14/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 89.0 | 10.0 | ug/L | 100.00 | | 89.0 | 66.8-137 | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *51.8* | | *ug/L* | *50.000* | | *104* | *80-120* | | | |
| *Surrogate: Toluene-d8* | *49.8* | | *ug/L* | *50.000* | | *99.6* | *80-120* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *51.3* | | *ug/L* | *50.000* | | *103* | *80-120* | | | |

**Instrument ID:** GC/MS #4
**Sample Header:** Matrix Spike (C7I1501-MS1)
**Sp Source:** Source: C17I009-01RE1
**Analyzed Date:** Prepared: 09/14/17 Analyzed: 09/15/17

| | Reporting | Spike | Source | %REC | RPD |
|---|---|---|---|---|---|

**Method:** Volatile Organic Compounds by EPA Method 8260C - Quality Control
**Laboratory:** PHILIS
**Batch ID:** Batch C7I1501 - 5030C

| Analyte | Result | Limit | Units | Level | Result | %REC | Limits | RPD | Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 134 | 10.0 | ug/L | 100.00 | 25.3 | 109 | 66.8-137 | | | |
| *Surrogate: 1,2-Dichloroethane-d4* | *51.5* | | *ug/L* | *50.000* | | *103* | *70-130* | | | |
| *Surrogate: Toluene-d8* | *50.3* | | *ug/L* | *50.000* | | *101* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.0* | | *ug/L* | *50.000* | | *100* | *70-130* | | | |

**Instrument ID:** GC/MS #4
**Sample Header:** Matrix Spike Dup (C7I1501-MSD1)
**Sp Source:** Source: C17I009-01RE1
**Analyzed Date:** Prepared: 09/14/17 Analyzed: 09/15/17

| Analyte | Result | Reporting Limit | Units | Spike Level | Source Result | %REC | %REC Limits | RPD | RPD Limit | Notes |
|---|---|---|---|---|---|---|---|---|---|---|
| Acetone | 104 | 10.0 | ug/L | 100.00 | 25.3 | 78.8 | 66.8-137 | 25.5 | 30 | |
| *Surrogate: 1,2-Dichloroethane-d4* | *52.8* | | *ug/L* | *50.000* | | *106* | *70-130* | | | |
| *Surrogate: Toluene-d8* | *50.6* | | *ug/L* | *50.000* | | *101* | *70-130* | | | |
| *Surrogate: 4-Bromofluorobenzene* | *50.2* | | *ug/L* | *50.000* | | *100* | *70-130* | | | |