

N-1023-18
August 10, 2016

Ms. Suzanne Warner
United States Environmental Protection Agency – Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

Re: **Submittal of Notice of Intent (NOI)**
Dewatering General Permit
North Beacon Street, Parsons Street and Electric Avenue
Brighton, Massachusetts

Dear Ms. Warner:

On behalf of NSTAR Electric Company d/b/a Eversource Energy (Eversource), Tighe & Bond, Inc. has prepared this Notice of Intent (NOI) (Appendix A) for application of a National Pollutant Discharge Elimination System (NPDES) Discharge General Permit (DGP) for construction dewatering activities associated with the construction of underground electric lines in the area of 315 Electric Avenue in Boston, Massachusetts (“Station 315” or the “Site”), which is shown on the Locus Plan (Figure 1), Priority Resource Map (Figure 2) and Dewatering Site Plan (Figure 3) in Appendix B.

As there is a need to treat and discharge water generated from the construction dewatering activities associated with the installation of underground electric lines, the enclosed NOI form provides required information on the general site conditions, proposed treatment system, discharge location and receiving water, and analytical results for the proposed dewatering, treatment and discharge activities, which are shown on Figure 4 (Process Flow Diagram). The excavation, dewatering, and discharge of treated water are scheduled to begin August 25, 2016 and conclude May 31, 2018. Discharge of treated groundwater to a City of Boston Water and Sewer Commission (BWSC) storm drain system is expected to be done periodically over a period of approximately 6 months in duration.

Site Background

The project involves the installation of approximately 25,700 linear feet of new distribution and transmission electrical duct banks, and 60 manholes along numerous streets in Brighton and Watertown. The conduit trench will measure approximately 5 feet wide and be installed at depths ranging from 5 to 17 feet below ground surface (BGS). The manholes are approximately 8 feet wide, by 12 feet long and installed at depths ranging from 10 to 20 feet BGS. The electrical duct banks and manholes are being installed in a mixed residential and commercial area in Watertown and Brighton, Massachusetts.

During the soil pre-characterization assessment activities related to the construction of the Station 315, elevated concentrations of arsenic, mercury, lead, petroleum, extractable petroleum hydrocarbons (EPH) and PAHs were identified above the respective Reportable Concentration (RCS-1) values in 28 soil samples submitted for laboratory analysis. On April 21, 2016 at 9:30 a.m. the MassDEP was notified of Eversource's intent to implement a Utility Release Abatement Measure (URAM) to manage excess soils and groundwater associated with the proposed construction activities. The URAM was submitted to the MassDEP on April 27, 2016 and is currently open.



Receiving Waters

There is a network of storm drains managed by the BWSC that drain the storm water runoff from the streets and surrounding area via subsurface pipes north to outfalls in the Charles River. Refer to Figure 3.

According to the USGS Website (<http://waterdata.usgs.gov>) the historical yearly median flow of the Charles River at the Waltham gauging station (which is located four miles upstream at 42°22'20", -71°14'03") is 7.24 m³/second (255.8 ft³/second).

Groundwater encountered during construction excavation will be discharged through a treatment system and into stormwater catch basins located along North Beacon Street and Electric Avenue (Figure 3) and discharged into the Charles River via outfall 24D150 and an unnamed outfall. This section of the Charles River is classified as a stressed water body and is listed in the 303d Impaired Waterbodies document.

As required, a dewatering discharge permit will be obtained from the BWSC prior to the commencement of discharge.

Treatment System

During the excavation, groundwater will be pumped to a mobile treatment system consisting of two 8 inch 304 Stainless steel 12 Bag Filter systems 1 micron bag filter units and a Yardney 4-Pod sand filter. The maximum flow is estimated to be 1,000 gallons per minute (gpm) or 2.23 ft³/second. A Notice of Termination will be sent to U.S.EPA when the excavation is complete and treated water is no longer being discharged. The Process Flow Diagram (Figure 4) is included in Appendix B.

Notice of Intent

Preparation of this NOI has included a review of the literature pertaining to the Areas of Critical Environmental concern (ACEC), Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA), as documented below:

- A Review of the MassGIS Priority Resource Map (Figure 2) shows that there are no ACECs, no NHESP Priority Habitats for Rare Species or Estimated Habitats for Rare Wildlife and no Species of Special Concern or Threatened or Endangered Species within 500 feet of the project area or in the vicinity of the discharge location.
- Review of the “Federally Listed Endangered and Threatened Species in Massachusetts” (Appendix C) found that there are three listed species in Suffolk County. Two species are coastal (piping plover and red knot) and the third, the Northern Long-Eared Bat, prefers mines and caves in winter and forested habitats in the summer. The piping plover are located on the beaches of Revere and Winthrop. The Red Knot prefers coastal beaches and rocky shores, sand and mud flats. The project areas not located along any coastal areas and is not located within any forested areas. Additionally, according to the electronic U.S. Fish and Wildlife Service Resource Information for Planning and Conservation (IPaC) (Appendix D) there are no endangered species or critical habitats at the Site or within the area of the proposed discharge. Therefore, permit eligibility meets “Criterion A.”
- An electronic review of the Massachusetts Cultural Resource Information System database (Appendix E), made available through Massachusetts Historical Commission, found no historical areas, buildings, objects, burial grounds or structures on or in the proximity of the project area. Therefore, permit eligibility meets “Criterion A.”

- Groundwater was tested on June 15, 2016, June 20, 2016 and August 3, 2016. Laboratory analytical results (Appendix F) reported the following RGP Effluent exceedances:
 - o Zinc was detected in RGP-1 (Filtered [F] and Unfiltered [UF]) at concentrations of 300 (F) and 350 (UF) $\mu\text{g/L}$, respectively and in RGP-3 (UF) at concentrations of 1,000 $\mu\text{g/L}$;
 - o Bis (2-Ethylhexyl) Phthalate was detected in RGP-3 (F) at concentrations of 8.4 $\mu\text{g/L}$;
 - o Copper was detected in RGP-1 at concentrations of 6.9 (F) and 7.3 (UF) $\mu\text{g/L}$, respectively;
 - o Lead was detected in RGP-2 (UF) at concentration 1.8 $\mu\text{g/L}$ and in RGP-3 (UF) at a concentration of 80 $\mu\text{g/L}$;
 - o The pH in RGP-2 (F and UF) 6.3 Standard Units (SU) was slightly below the effluent range of 6.5-9 SU;
 - o TSS was detected in RGP-2 (UF) at concentration 100 mg/L and in RGP-3 at concentrations of 35 mg/L (F) and 35 mg/L (UF) ; and
 - o TRC was detected in RGP-2 (UF) at concentration 72 $\mu\text{g/L}$ and in RGP-3 (UF) at 110 $\mu\text{g/L}$.

Based on the proposed discharge rate of up to 1,000 gpm (2.23 ft³/second and 1.44 million gallons per day (mgd)) and the Charles River's 7Q10 of 21.3 ft³/second (at the MIT gauging station) a dilution factor of 10.54 was established for this permit utilizing the guidelines established in Appendix VII of the DGP Permit. Based on the dilution factor and the proposed treatment system, none of the above listed parameters are expected to exceed the applicable effluent limits. If you need any additional information or assistance on this project, please do not hesitate to contact Michael E. Martin at (508) 564-7285 at your convenience.

Very truly yours,

TIGHE & BOND, INC.


Michael E. Martin
Project Manager

Enclosures

Copy: Michael Zylich, Eversource
MassDEP, Division of Watershed Management

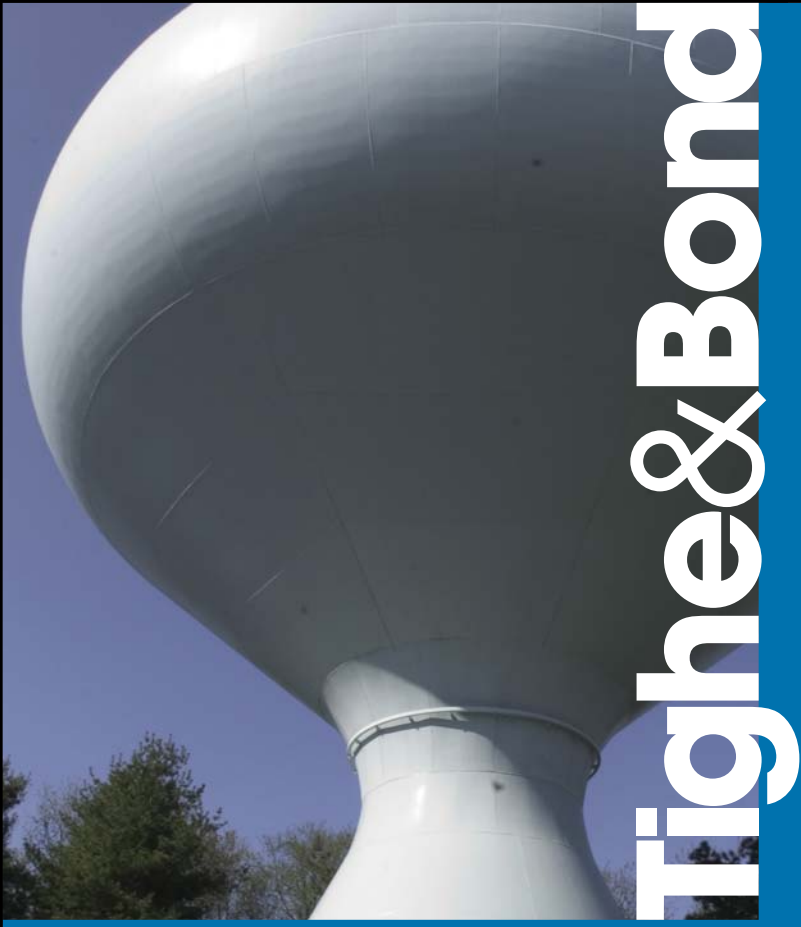
J:\N\N1023 NSTAR LSP OnCall Services\Station 315 Brighton\Reports\DGP

List of Appendices

Appendix A	Notice of Intent
Appendix B	Figures
Appendix C	Federally Endangered Species in Massachusetts
Appendix D	U.S. Fish and Wildlife Service Resource Information for Planning and Conservation (IPaC)
Appendix E	Massachusetts Cultural Resources Information System Report
Appendix F	Groundwater Summary Table
Appendix G	Laboratory Analytical Report
Appendix H	BWSC Transmittal Form

List of Figures

Figure 1	Site Locus Map
Figure 2	MassDEP Priority Resource Map
Figure 3	Aerial Dewatering Site Plan and Discharge Drainage Map
Figure 4	Process Flow Diagram



II. Suggested Notice of Intent (NOI) Format

1. General facility information. Please provide the following information about the facility.

a) Name of facility: Station 315 - UG Electrical Transmission and Duct Bank		Mailing Address for the Facility: 247 Station Drive, Westwood, MA 02090	
b) Location Address of the Facility (if different from mailing address): Electric Avenue, North Beacon Street and Parsons Street, Brighton, MA		Facility Location longitude: <u>-71.155406</u> latitude: <u>42.356850</u>	Type of Business: Commercial Facility SIC codes: 0
c) Name of facility owner: <u>NStar Electric d/b/a Eversource Energy</u> Owner's email: <u>michael.zylich@eversource.com</u> Owner's Tel #: <u>(781) 441-3804</u> Owner's Fax #: _____ Address of owner (if different from facility address) Owner is (check one): 1. Federal _____ 2. State _____ 3. Private ☒ 4. Other _____ (Describe) _____			
Legal name of Operator, if not owner: <u>The Middlesex Corporation</u> Operator Contact Name: <u>Paul Seidenberg</u> Operator Tel Number: <u>(978) 742-4451</u> Fax Number: _____ Operator's email: <u>pseidenberg@middlesexco.com</u> Operator Address (if different from owner) 1 Spectacle Pond Road, Littleton, MA 01460			
d) Attach a topographic map indicating the location of the facility and the outfall(s) to the receiving water. Map attached? ☒			
e) Check Yes or No for the following: 1. Has a prior NPDES permit been granted for the discharge? Yes _____ No <u>X</u> If Yes, Permit Number: _____ 2. Is the discharge a "new discharger" as defined by 40 CFR Section 122.2? Yes _____ No <u>✓</u> 3. Is the facility covered by an individual NPDES permit? Yes _____ No <u>✓</u> If Yes, Permit Number _____ 4. Is there a pending application on file with EPA for this discharge? Yes _____ No <u>✓</u> If Yes, date of submittal: _____			

2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed)

a) Name of receiving water into which discharge will occur: Charles River
 State Water Quality Classification: Class B Freshwater: YES Marine Water: _____

b) Describe the discharge activities for which the owner/applicant is seeking coverage:
☒ 1. Construction dewatering of groundwater intrusion and/or storm water accumulation.'
 2. Short-term or long-term dewatering of foundation sumps.'
 3. Other.'

c) Number of outfalls 2

For each outfall:

d) Estimate the maximum daily and average monthly flow of the discharge (in gallons per day – GPD). Max Daily Flow 1.44e+6 GPD
 Average Monthly Flow 2.19e+7 GPD

e.) What is the maximum and minimum monthly pH of the discharge (in s.u.)? Max pH 6.3 Min pH 7.0

f.) Identify the source of the discharge (i.e. potable water, surface water, or groundwater). If groundwater, the facility shall submit effluent test results, as required in Section 4.4.5 of the General Permit.
Groundwater

g.) What treatment does the wastewater receive prior to discharge? See Treatment Diagram

h.) Is the discharge continuous? Yes _____ No ☒ If no, is the discharge periodic (P) (occurs regularly, i.e., monthly or seasonally, but is not continuous all year) or intermittent (I) (occurs sometimes but not regularly) or both (B) I
 If (P), number of days or months per year of the discharge _____ and the specific months of discharge _____ ; '
 If (I), number of days/year there is a discharge No More than 30 '
 Is the discharge temporary? Yes ☒ No _____
 If yes, approximate start date of dewatering August 25, 2016 approximate end date of dewatering May 31, 2018

i.) Latitude and longitude of each discharge within 100 feet (See http://www.epa.gov/tri/report/siting_tool): Outfall 1: long. -71.156913 lat. 42.359475 ; Outfall 2: long. -71.150181 lat. 42.360730 ; Outfall 3: long. _____ lat. _____.

j.) If the source of the discharge is potable water, please provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water and attach any calculation sheets used to support stream flow and dilution calculations _____ cfs
 (See Appendix VII for equations and additional information)

MASSACHUSETTS FACILITIES: See Section 3.4 and Appendix 1 of the General Permit for more information on Areas of Critical Environmental Concern (ACEC): k.) Does the discharge occur in an ACEC? Yes _____ No <u>✓</u> If yes, provide the name of the ACEC: _____

3. Contaminant Information

a) Are any pH neutralization and/or dechlorination chemicals used in the discharge? If so, include the chemical name and manufacturer; maximum and average daily quantity used as well as the maximum and average daily expected concentrations (mg/l) in the discharge, and the vendor's reported aquatic toxicity (NOAEL and/or LC₅₀ in percent for aquatic organism(s)). No b) Please report any known remediation activities or water-quality issues in the vicinity of the discharge. RTN 3-3359 and RTN 3-19793. See cover letter
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4. Determination of Endangered Species Act Eligibility: Provide documentation of ESA eligibility as required at Part 3.4 and Appendix IV. In addition, respond to the following questions.

a) Which of the three eligibility criteria listed in Appendix IV, Criterion (A, B, or C) have you met? <u>A</u> _____ b) Please attach documentation with your NOI supporting your response. Please see Appendix IV for acceptable documentation
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5. Documentation of National Historic Preservation Act requirements: Please respond to the following questions:

a) See Screening Process in Appendix III and respond to questions regarding your site and any historic properties listed or eligible for listing on the National Register of Historic Places. Question 1: Yes _____ No <u>✓</u> ; Question 2: No <u>✓</u> Yes _____ b) Have any State or Tribal historic preservation officers been consulted in this determination? Yes _____ or No <u>✓</u> If yes, attach the results of the consultation(s). c) Which of the three National Historic Preservation Act eligibility criterion listed in Appendix III, Criterion (A, B, or C) have you met? <u>A</u> _____ d) Is the project located on property of religious or cultural significance to an Indian Tribe? Yes _____ or No <u>✓</u> If yes, provide that name of the Indian Tribe associated with the property. _____
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6. Supplemental Information: Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit

7. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22 (see below) including the following certification:

I certify under penalty of law that (1) no biocides or other chemical additives except for those used for pH adjustment and/or dechlorination are used in the dewatering system; (2) the discharge consists solely of dewatering and authorized pH adjustment and/or dechlorination chemicals; (3) the discharge does not come in contact with any raw materials, intermediate product, water product or finished product; (4) if the discharge of dewatering subsequently mixes with other permitted wastewater (i.e. stormwater) prior to discharging to the receiving water, any monitoring provided under this permit will be only for dewatering discharge; (5) where applicable, the facility has complied with the requirements of this permit specific to the Endangered Species Act and National Historic Preservation Act; and (6) this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted.

Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility Name: Station 315 - UG Electrical Transmission and Duct Bank

Operator signature: 

Print Full Name and Title: Project Executive

Date: 8/2/2016 -

Federal regulations require this application to be signed as follows:

1. For a corporation, by a principal executive officer of at least the level of vice president;
2. For partnership or sole proprietorship, by a general partner or the proprietor, respectively, or,
3. For a municipality, State, Federal or other public facility, by either a principal executive officer or ranking elected official.

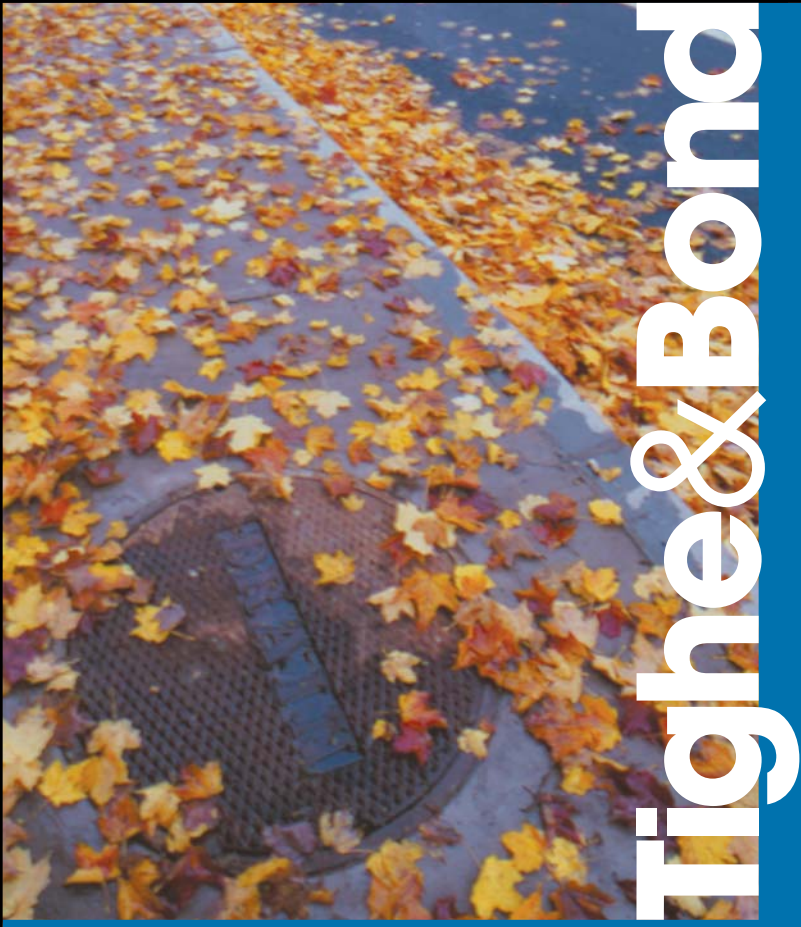




FIGURE 1
SITE LOCATION MAP

Eversource
Station 315
315 Electric Avenue
Brighton, Massachusetts

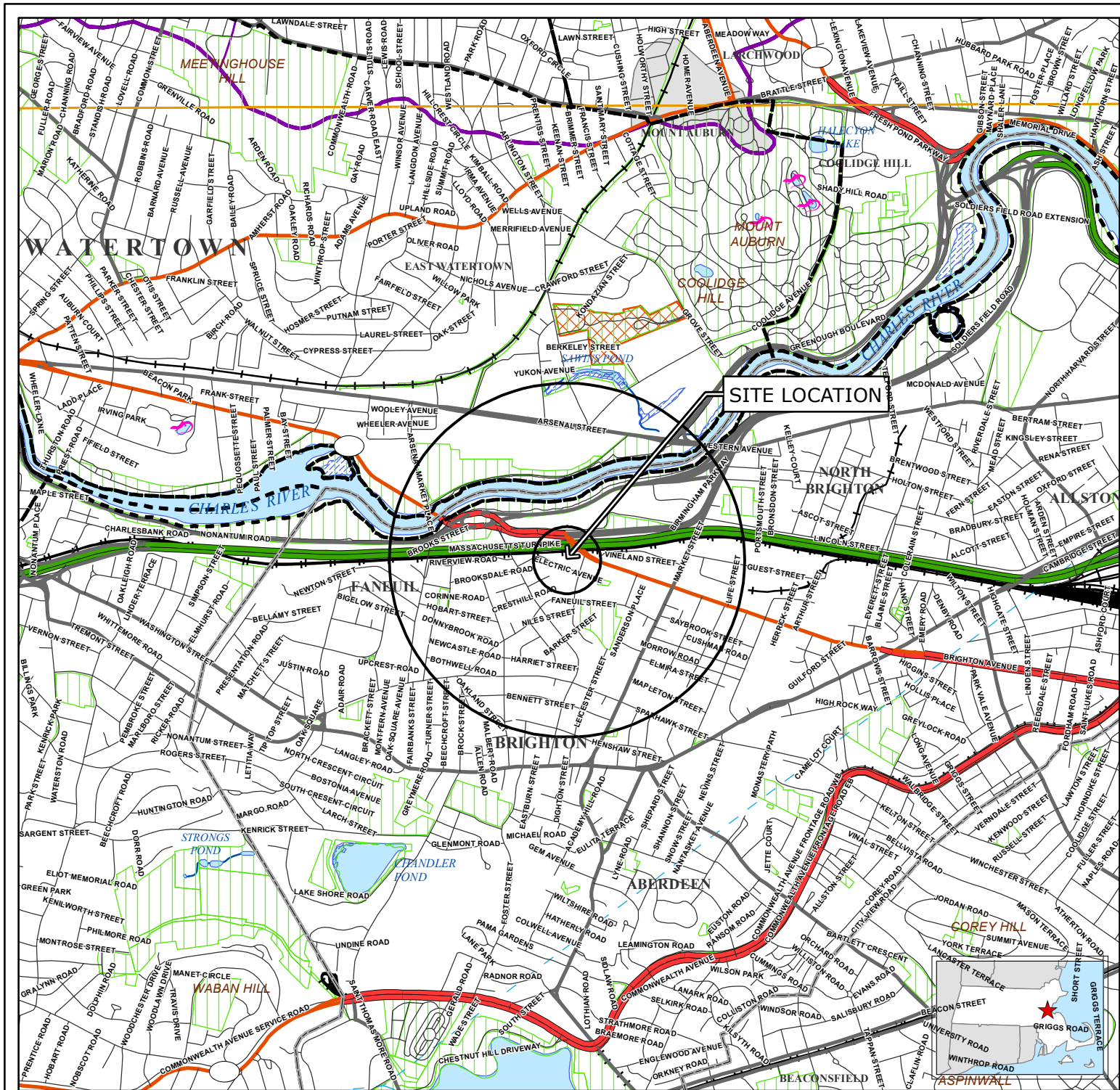
June 2016

Tighe&Bond
Engineers | Environmental Specialists

Based on USGS Topographic Map for
Newton, MA Revised 1987. [Site Quad]
Contour Interval Equals 3-Meters. [Site Quad]
Lexington, MA Revised 1985.
Contour Interval Equals 3-Meters.
Circles indicate 500-foot and half-mile radii

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





Legend

- | | | |
|---|--|---|
| NHESP Certified Vernal Pools | Powerline | Major Drainage Basin |
| NHESP Potential Vernal Pools | Pipeline | Sub Drainage Basin |
| Non-Landfill Solid Waste Sites | Track or Trail | Inland Wetlands |
| Community Public Water Supply - Surface Water | Trains | Coastal Wetlands |
| Community Public Water Supply - Groundwater | Stream/Intermittent Stream | Public Surface Water Supply (PSWS) |
| Non-Community Non-Transient Public Water Supply | Public Surface Water Supply Protection Area (Zone A) | Water Bodies |
| Non-Community Transient Public Water Supply | DEP Approved Wellhead Protection Area (Zone I) | Non-Potential Drinking Water Source Area - High Yield |
| Limited Access Highway | DEP Approved Wellhead Protection Area (Zone II) | Non-Potential Drinking Water Source Area - Medium Yield |
| Multi-Lane Highway, NOT Limited Access | DEP Interim Wellhead Protection Area (IWPA) | Potentially Productive Medium Yield Aquifer |
| Other Numbered Highway | Protected and Recreational Open Space | Potentially Productive High Yield Aquifer |
| Major Road - Collector | Solid Waste Landfill | County Boundary |
| Minor Street or Road | Area of Critical Environmental Concern (ACEC) | Town Boundary |
| Aquaducts | NHESP Priority Habitats for Rare Species | USGS Quadrangle Sheet Boundary |
| | NHESP Estimated Habitats for Rare Wildlife | |
| | EPA Designated Sole Source Aquifer | |

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

FIGURE 2 PRIORITY RESOURCE MAP

Eversource
Station 315
315 Electric Avenue
Brighton, Massachusetts

Data source: Office of Geographic Information (MassGIS), Commonwealth of Massachusetts, MassIT)
Executive Office of Environmental Affairs.
Circles indicate 500-foot and half-mile radii.
Data valid as of June 2016.

June 2016

Tighe & Bond
Engineers | Environmental Specialists



FIGURE 3
Station 315 Dewatering
Site Plan

LEGEND

- RGP
- Catch Basin
- Outfall
- Limit of Dewatering Permit
- Town Boundary

LOCUS MAP

0 75 150 300
Feet
1:3,600

NOTES
Based on MassGIS Color Orthophotography (2013)

UG Electrical Transmission and Distribution Installation
Electric Ave, Goodenough St, & N. Beacon St
Brighton, MA

August 2016

Tighe&Bond
Engineers | Environmental Specialists

PRODUCT DATA SHEET

March, 2008

**8" 304 STAINLESS STEEL
12-BAG FILTER SYSTEM**

GENERAL INFORMATION

Single vessel mounted on a forkliftable skid. Housing is not ASME code stamped. Different filter elements are available depending on job requirements and should be specified by the customer prior to use.

WEIGHTS AND MEASURES

» Capacity*:	1200 – 2000 gpm (@ 1 micron and up)
» Design Press:	150 psig
» Design Temp:	225°F max. (gasket dependent)
» Height:	7'-5" (overall)
» Width:	4'-11"
» Depth:	7'-5"
» Weight (dry):	1075 lbs. (approx.)

*Capacity (flowrate) depends on factors such as liquid viscosity, micron value of the filter media, solids loading etc. Assuming water as a filtrate and factoring in pressure drop only, 2000 gpm is a practical upper limit for a size #2 bag with a 100 micron rating; 1200 gpm with 1-micron rated bags.. Clean pressure drop would be 2-3 psi. Lowering the micron rating increases the pressure drop. The minimum pressure drop for this unit at higher micron ratings is 1-2 psi. Filter bags should be changed out at 15-18 psid, or earlier if the process requires it.

SKID DESIGN

» Skid:	2"x2"x0.25" A36 c.s. structural tubing
» Vessel Leg Supports:	3x3x.375 angle, SA-36
» Forklift Pockets:	Through front and rear framing channels

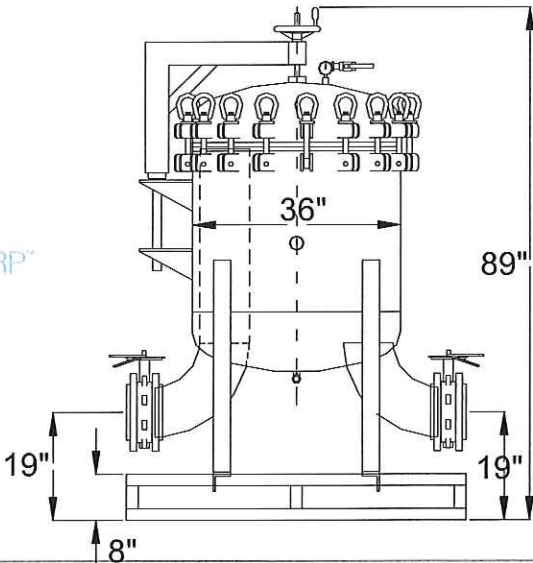
FILTER DESIGN

» Assembly Number:	Krystil Klear LR12-36-30-8F-A-4-15-SP
» Top Head:	(17) closure bolts and nuts with davit lift assembly. 36" O.D., 0.25" thk, SA-240 Gr. 304 stainless steel
» Shell:	36" O.D., 0.25" thick x 28" L . R & T, SA-240 Gr. 304 stainless steel
» Inlet & Outlet:	8" 150# RFSO flanges, SA-182 Gr. 304 S.S.
» Bag Elements:	12 required: size #2, 7-1/16" snap ring & 30" length required; Available fibers range from 1 to 1500 microns.
» Lid Seal:	Buna N O-ring
» In/Out Valves:	8" 150" butterfly with Buna seat
» Internal Hardware:	SA-240 Gr. 304 S.S. tube sheet

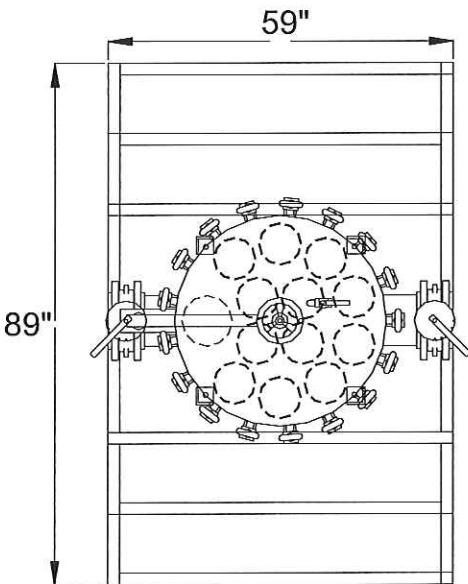
TESTS / CERTIFICATIONS

» Test Performed:	OEM Hydrotested @ 195 psi. Scheduled QMS inspections after purchase by BakerCorp.
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To the best of our knowledge the technical data contained herein are true and accurate at the date of issuance and are subject to change without prior notice. No guarantee of accuracy is given or implied because variations can and do exist. NO WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY BAKERCORP, EITHER EXPRESSED OR IMPLIED.

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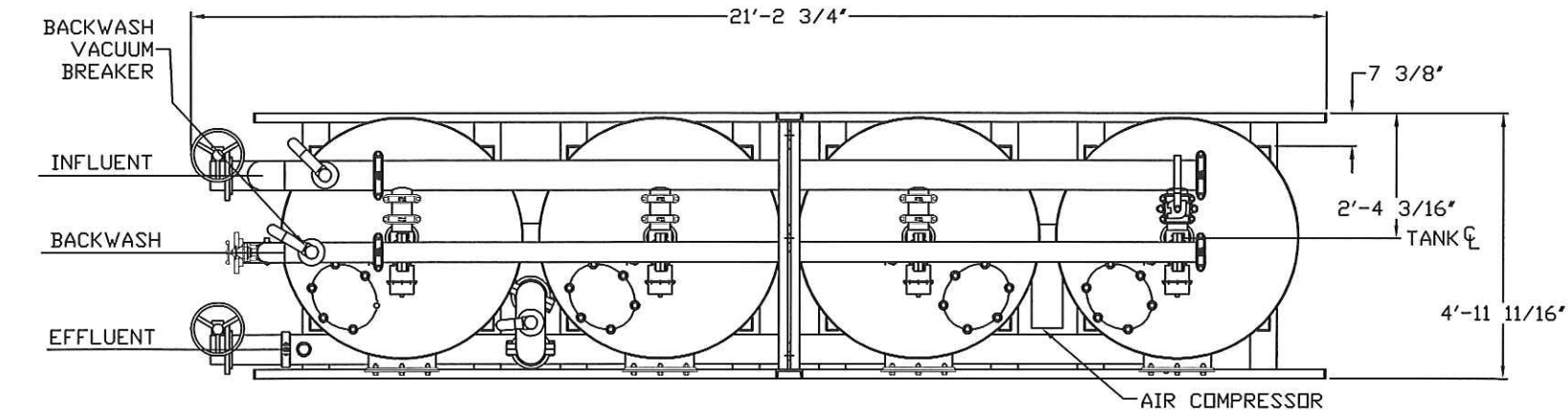
PRODUCT DATA SHEET
January, 2007

YARDNEY 4-POD SAND FILTER
(Equip. # SFL21988 and earlier)

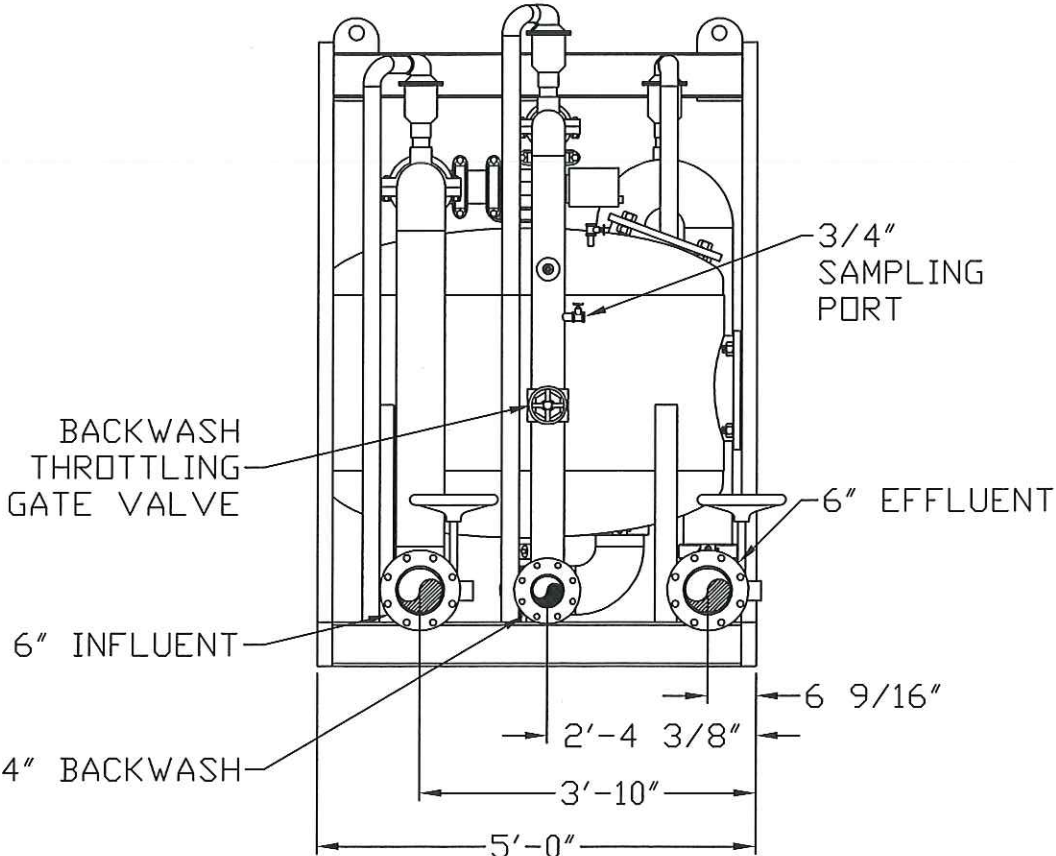
GENERAL INFORMATION	
Skid mounted high rate automatic backwashing sand media filter (4 tanks (pods)) designed for general-purpose water filtration of organic and inorganic solids (Yardney Model # IL5424-4AS2). Powered by 110 V external power supply, or battery with solar cell recharge for remote operation.	
WEIGHTS AND MEASURES	
» Capacity:	504 – 756 gpm (Normal flow range) 1000 gpm (Peak flow)
» Design Press:	80 psi maximum
» Temperature:	Limit to ambient. Consult BakerCorp if temperature exceeds 100 degrees.
» Filtration:	To 50 microns
» Height:	8'-11" (overall)
» Width :	6'-3"
» Length:	20'-1"
» Weight:	6,326 lbs. – equipment only 14,500 lbs. – media only 28,000 lbs. - operational
» Backflush:	240 gpm, automatic
OPERATING REQUIREMENTS	
» Compressed Air:	5 cfm minimum at 60 psi [Note: external air supply required]
» Sand Media:	Crushed silica, 0.47MM (#80 grit)
» Gravel Media:	#3 crushed rock, ½" x ¾"
» Input Power:	Selectable input power of customer supplied 110 V AC, or 12V DC from a unit mounted solar package.
» Output Power:	12V DC
FEATURES	
» System Controller:	Automatic Filter Controller. Flush activation based on elapsed time and/or pressure differential.
» Piping:	Inlet & outlet pipe is 6" A53B, 3/16" wall; weld fittings are A234; flanges are A106. Backflush piping is 4" schedule 40 PVC.
» Solar Panel:	Uni-Solar Model UA-5 (5 watts) module.
FEATURES – con't	
» Press. Gauge:	2" face, ¼" NPT bottom connection, stainless steel case, plexiglass lens, brass bourdon tube, 0-100 psi range.
» Flowmeter:	Six-inch propeller type meter, AWWA C704-92 compliant. Instantaneous flowrate indicator and six-digit totalizer. Accuracy is ±2% of reading. Repeatability of 0.25%. Rated at 90-1200 gpm, 150 psi, 160°F. Tube: epoxy-coated carbon steel; Impeller: high-impact plastic.
» Butterfly Valves:	Effluent / Influent: 6" with cast iron body (epoxy coated), EPDM seat, 304 SS stem and aluminum bronze disc. Tank Isolation: 4" grooved ends, EPDM disc coating
» Ball Valves:	Four-inch, bronze body and brass ball; seat is carbon/glass-filled PTFE. ¼ turn open or close.
» Solenoid Valve:	12V DC, normally closed type 7121V (energizing opens valve).
» Differential Press. Switch:	0-30 psid. Two-inch dial, plated steel case, ±3% accuracy.
» Air / Vacuum Release Valve:	2" Bernard Model 4415 valve, mounted on backwash, influent and effluent lines
» Battery:	Sealed rechargeable lead-acid, 12V, NP2.6-12
» Battery Charger:	Power-Sonic Model PSC-12500A, 12 volts.
» Tubing:	Pressurized – ¼" 304 ss w/ Hoke fittings; Drain - ¼" polypropylene; Vent – schedule 80 PVC
SURFACE DETAILS	
» Interior Coating:	3M Scotchkote 134
» Exterior Coating:	High Gloss Polyurethane
TESTS/CERTIFICATIONS	
» Tests Performed:	OEM pressure tested. BakerCorp performs scheduled QMS inspections.

NOTES:

1. This drawing is a baseline representation for this size skid. Variations between this drawing and the actual equipment in the field can may exist, primarily with appurtenance locations. Consult your local BakerCorp representative if specific needs exist.



TOP VIEW

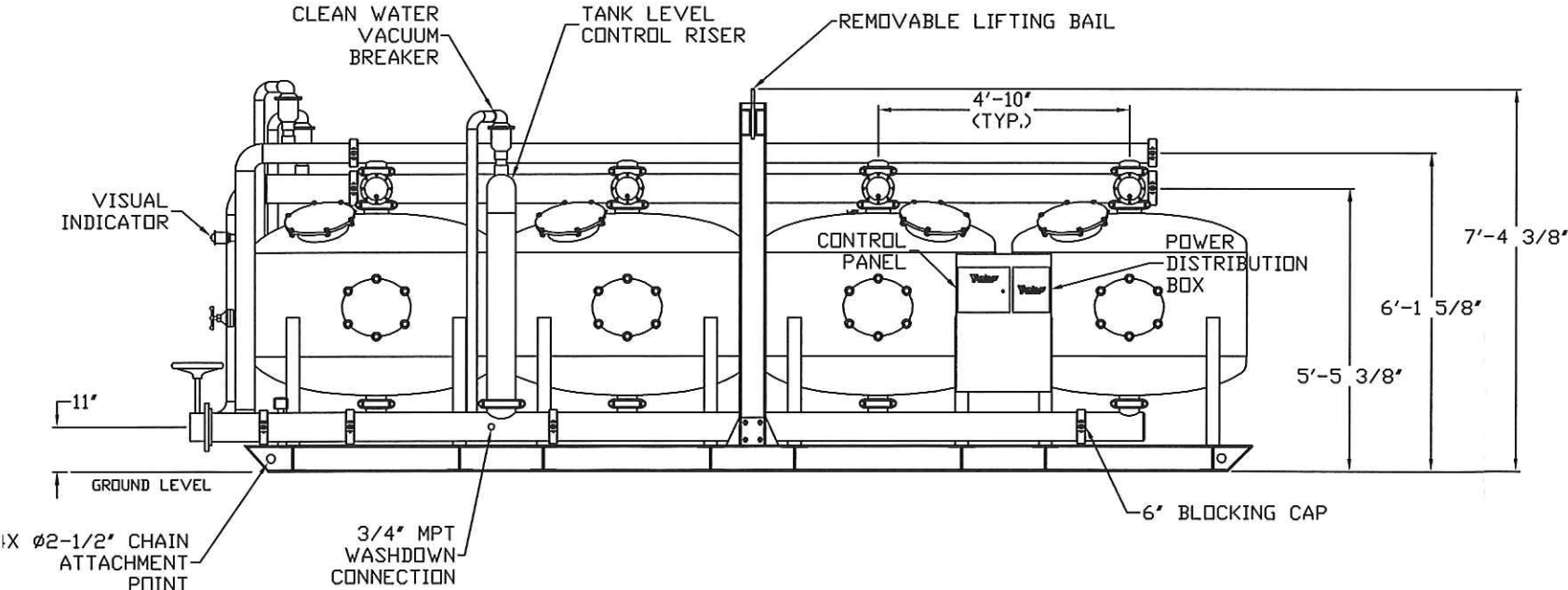


END VIEW

MODEL IL5424-4AS3

NOTES:

1. FLOW RATE DESIGN - 1000 GPM
2. MAXIMUM WORKING PRESSURE - 80 PSI.
3. ELECTRICAL:
 - CONTROLLER 120V, 1A
 - COMPRESSOR 120V, 5A
4. WEIGHT (APPROX.)
 - A. EQUIPMENT - 4900#
 - B. MEDIA - 14,500#
 - C. OPERATION - 26,900#
5. BACKWASH RATE: 15 GPM/FT² - 240 GPM.
6. PNEUMATICALLY ACTIVATED VALVES. W/ SS TUBE
7. STEEL CONDUIT
8. TUBE TANK VENT VALVES TO GROUND

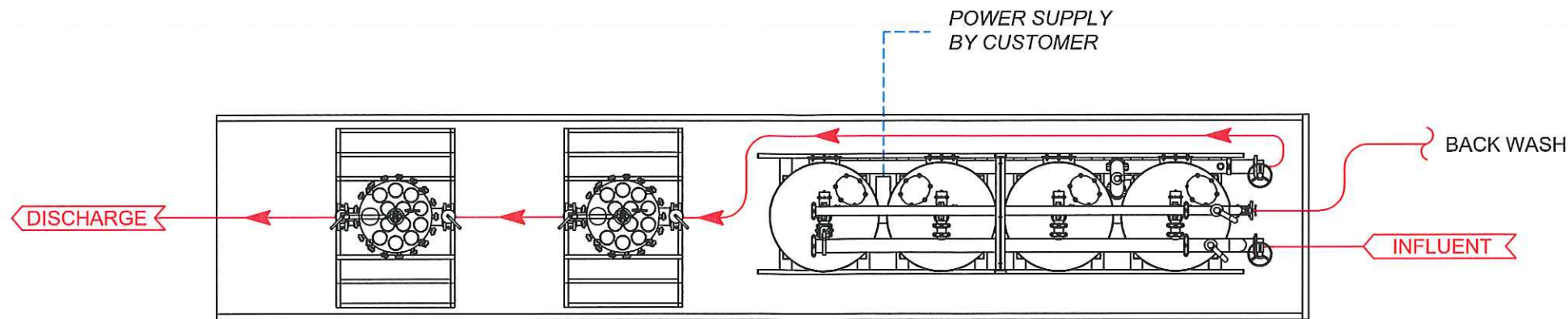


SIDE VIEW

The information contained herein is proprietary to BakerCorp and shall not be reproduced or disclosed in whole or in part, or used for any design or manufacture except when user obtains direct written authorization from BakerCorp.

BAKERCORP 3020 OLD RANCH PARKWAY
SEAL BEACH, CA 90740-2751

G				SCALE: Do Not Scale	SIZE B	ORIGINAL DWG. DATE 17MAR05
F				DRAWN BY: P.J.B.	APPROVED BY: -	CAT/CLASS --
E				TITLE YARDNEY 4-POD SAND FILTER (Equipment No. SFL22034 and higher)		SHEET 1 OF 1
D				DRAWING NO.		REV. 0
C						
B						
A						
REV.	DESCRIPTION	DATE	BY	S-9-M0019-1-		

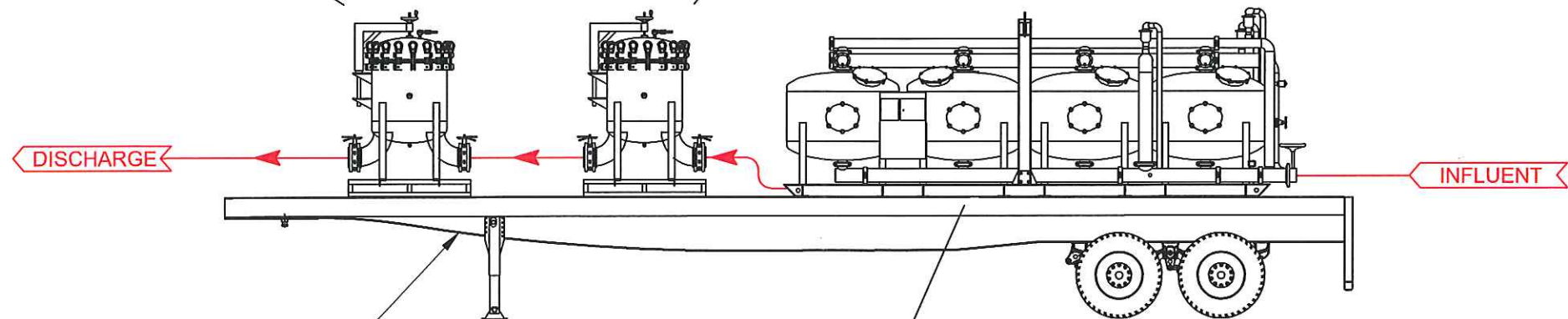


12 BAG FILTER SYSTEM	
Equipment:	LR1236308FA415SP
Flow:	2,000 gpm
Dimensions:	7'-5" x 5' x 7'-5"

(5µ BAGS)

12 BAG FILTER SYSTEM	
Equipment:	LR1236308FA415SP
Flow:	2,000 gpm
Dimensions:	7'-5" x 5' x 7'-5"

(25µ BAGS)



CUSTOMER OWNED
45' FLAT BED TRAILER

4 POD SAND FILTER (4AS3)	
Nominal Flow:	1,000 GPM (Max)
Filtration:	50 Micron
Dimensions:	21'-3" x 5' x 7'-7"

The information presented on this drawing is for informational purposes only. Use of this drawing is not a replacement for a professional engineering evaluation of the application. This drawing is intended to show preliminary equipment requirements and arrangement and is in no way a replacement for a thorough engineering review of the application at hand. A representative of the customer or end user should always conduct the final evaluation of the application. That representative, and not BakerCorp Inc., or its employees and representatives, is responsible for the final engineering design and performance of the application.

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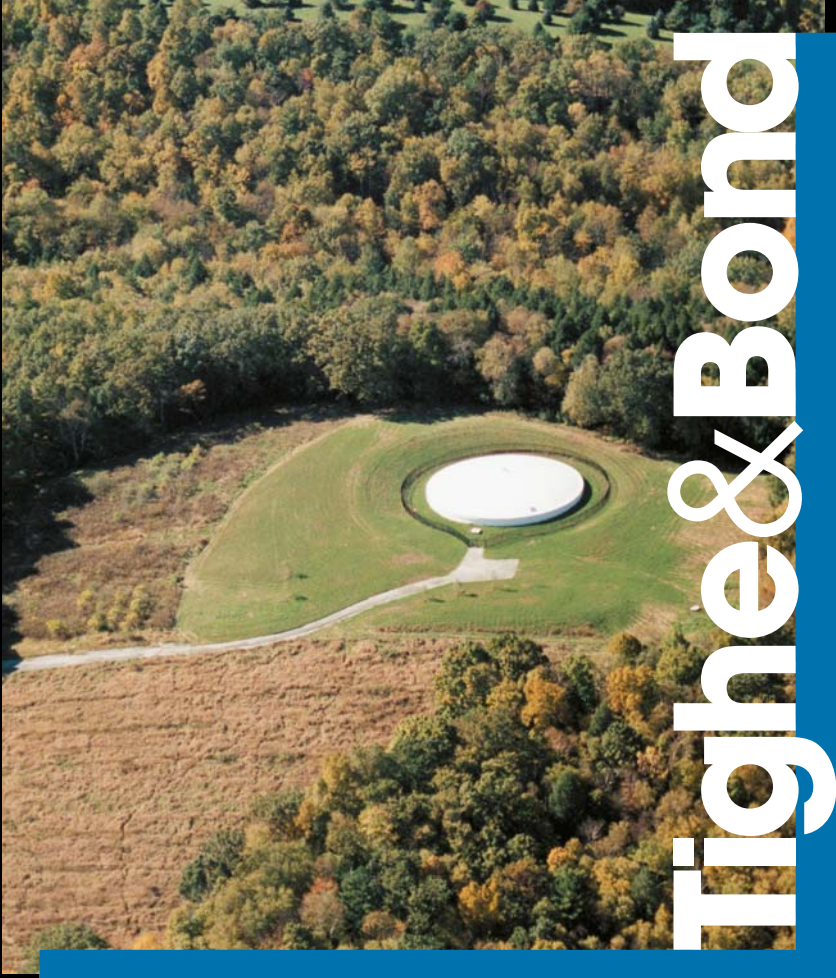
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SHEET SIZE:	MATERIAL:
B	FINISH:
11" x 17"	

BAKERCORP 3020 OLD RANCH PARKWAY
SEAL BEACH, CA 90740-2751

TITLE: **CON-TEST ANALYTICAL LABORATORY N-1023
PROCESS FLOW DIAGRAM**

CUSTOMER: MIDDLESEX CORP		BRANCH: BOS	
DWG BY: M. BROOKS	DATE: 07-07-16	SCALE: -	SHEET: 1 OF: 1
CKD BY: M. SCOPELLETI	DATE: 07-07-16	DWG No: SKF2552	REV: -



Tighe & Bond

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

See Suffolk County

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

Updated 01/09/2015

**FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES
IN MASSACHUSETTS**

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot ¹	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

¹Migratory only, scattered along the coast in small numbers

- Eastern cougar and gray wolf are considered extirpated in Massachusetts.
- Endangered gray wolves are not known to be present in Massachusetts, but dispersing individuals from source populations in Canada may occur statewide.
- Critical habitat for the Northern Red-bellied Cooter is present in Plymouth County.



Tighe & Bond

Station 315

IPaC Trust Resources Report

Generated June 23, 2016 08:21 AM MDT, IPaC v3.0.8

This report is for informational purposes only and should not be used for planning or analyzing project level impacts. For project reviews that require U.S. Fish & Wildlife Service review or concurrence, please return to the IPaC website and request an official species list from the Regulatory Documents page.

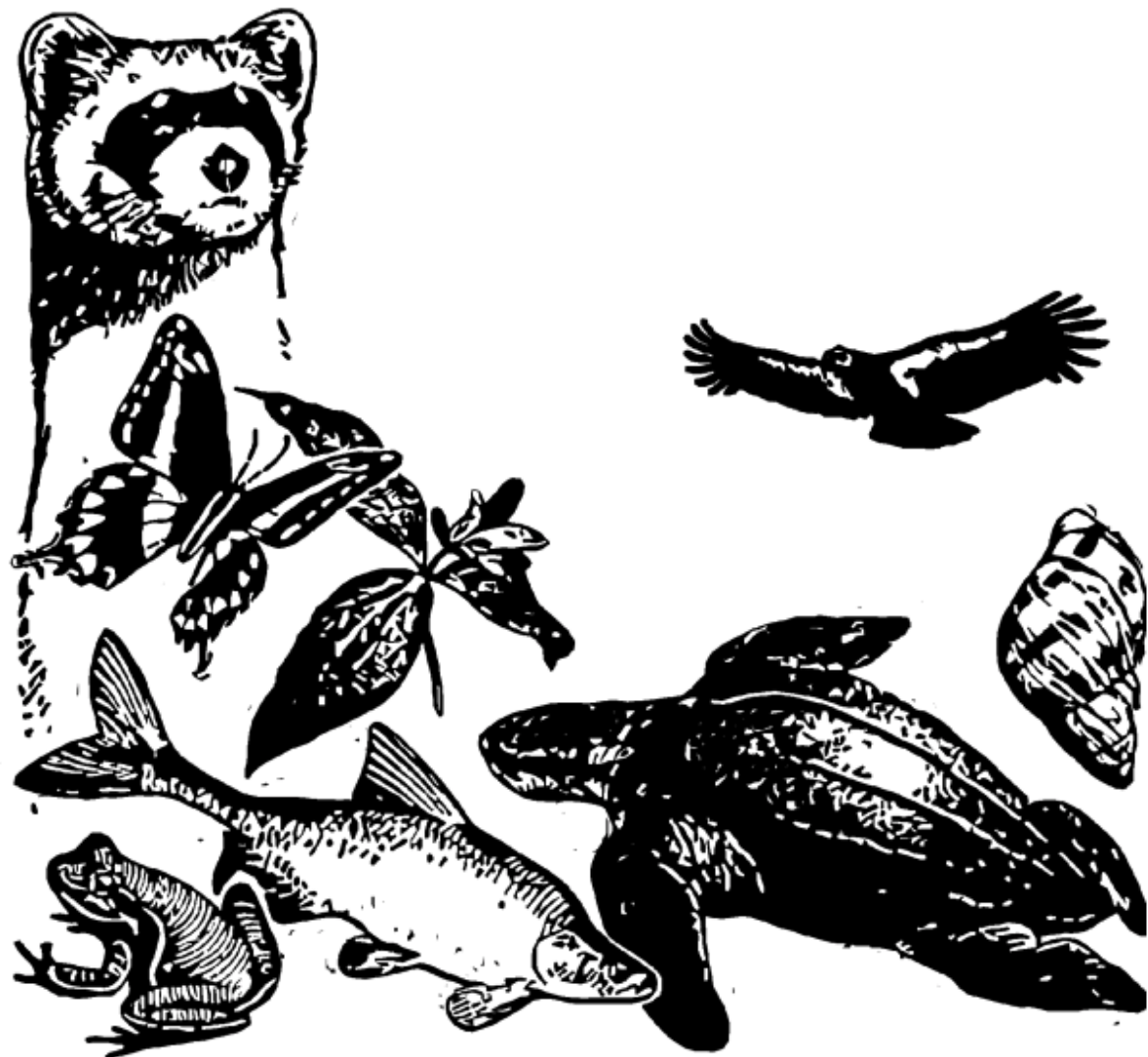


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U.S. Fish & Wildlife Service

IPaC Trust Resources Report



NAME

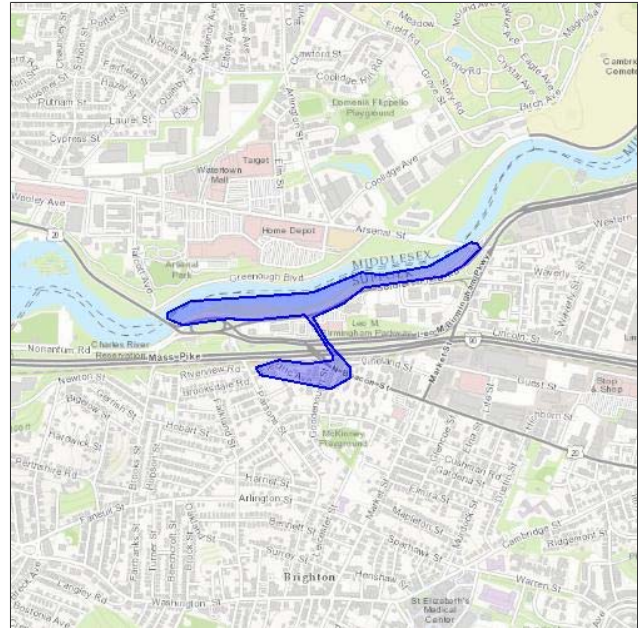
Station 315

LOCATION

Middlesex and Suffolk counties,
Massachusetts

IPAC LINK

<https://ecos.fws.gov/ipac/project/6DIOC-YQIFF-CRHI5-2JODZ-AH3HIU>



U.S. Fish & Wildlife Service Contact Information

Trust resources in this location are managed by:

New England Ecological Services Field Office

70 Commercial Street, Suite 300

Concord, NH 03301-5094

(603) 223-2541

Endangered Species

Proposed, candidate, threatened, and endangered species are managed by the [Endangered Species Program](#) of the U.S. Fish & Wildlife Service.

This USFWS trust resource report is for informational purposes only and should not be used for planning or analyzing project level impacts.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list from the Regulatory Documents section.

[Section 7](#) of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency.

A letter from the local office and a species list which fulfills this requirement can only be obtained by requesting an official species list either from the Regulatory Documents section in IPaC or from the local field office directly.

There are no endangered species in this location

Critical Habitats

There are no critical habitats in this location

Migratory Birds

Birds are protected by the [Migratory Bird Treaty Act](#) and the [Bald and Golden Eagle Protection Act](#).

Any activity that results in the take of migratory birds or eagles is prohibited unless authorized by the U.S. Fish & Wildlife Service.^[1] There are no provisions for allowing the take of migratory birds that are unintentionally killed or injured.

Any person or organization who plans or conducts activities that may result in the take of migratory birds is responsible for complying with the appropriate regulations and implementing appropriate conservation measures.

1. 50 C.F.R. Sec. 10.12 and 16 U.S.C. Sec. 668(a)

Additional information can be found using the following links:

- Birds of Conservation Concern
<http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Conservation measures for birds
<http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Year-round bird occurrence data
<http://www.birdscanada.org/birdmon/default/datasummaries.jsp>

The following species of migratory birds could potentially be affected by activities in this location:

American Oystercatcher *Haematopus palliatus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0G8

American Bittern *Botaurus lentiginosus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F3

Bald Eagle *Haliaeetus leucocephalus*

Bird of conservation concern

Season: Year-round

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B008

Black-billed Cuckoo *Coccyzus erythrophthalmus*

Bird of conservation concern

Season: Breeding

http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HI

Blue-winged Warbler <i>Vermivora pinus</i> Season: Breeding	Bird of conservation concern
Canada Warbler <i>Wilsonia canadensis</i> Season: Breeding	Bird of conservation concern
Hudsonian Godwit <i>Limosa haemastica</i> Season: Migrating	Bird of conservation concern
Least Bittern <i>Ixobrychus exilis</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B092	
Olive-sided Flycatcher <i>Contopus cooperi</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0AN	Bird of conservation concern
Peregrine Falcon <i>Falco peregrinus</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0FU	Bird of conservation concern
Pied-billed Grebe <i>Podilymbus podiceps</i> Season: Breeding	Bird of conservation concern
Prairie Warbler <i>Dendroica discolor</i> Season: Breeding	Bird of conservation concern
Purple Sandpiper <i>Calidris maritima</i> Season: Wintering	Bird of conservation concern
Saltmarsh Sparrow <i>Ammodramus caudacutus</i> Season: Breeding	Bird of conservation concern
Seaside Sparrow <i>Ammodramus maritimus</i> Season: Breeding	Bird of conservation concern
Short-eared Owl <i>Asio flammeus</i> Season: Wintering http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HD	Bird of conservation concern
Snowy Egret <i>Egretta thula</i> Season: Breeding	Bird of conservation concern
Upland Sandpiper <i>Bartramia longicauda</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0HC	Bird of conservation concern
Willow Flycatcher <i>Empidonax traillii</i> Season: Breeding http://ecos.fws.gov/tess_public/profile/speciesProfile.action?spcode=B0F6	Bird of conservation concern
Wood Thrush <i>Hylocichla mustelina</i> Season: Breeding	Bird of conservation concern
Worm Eating Warbler <i>Helmitheros vermivorum</i> Season: Breeding	Bird of conservation concern

Wildlife refuges and fish hatcheries

There are no refuges or fish hatcheries in this location

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

DATA LIMITATIONS

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

DATA EXCLUSIONS

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercid worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

DATA PRECAUTIONS

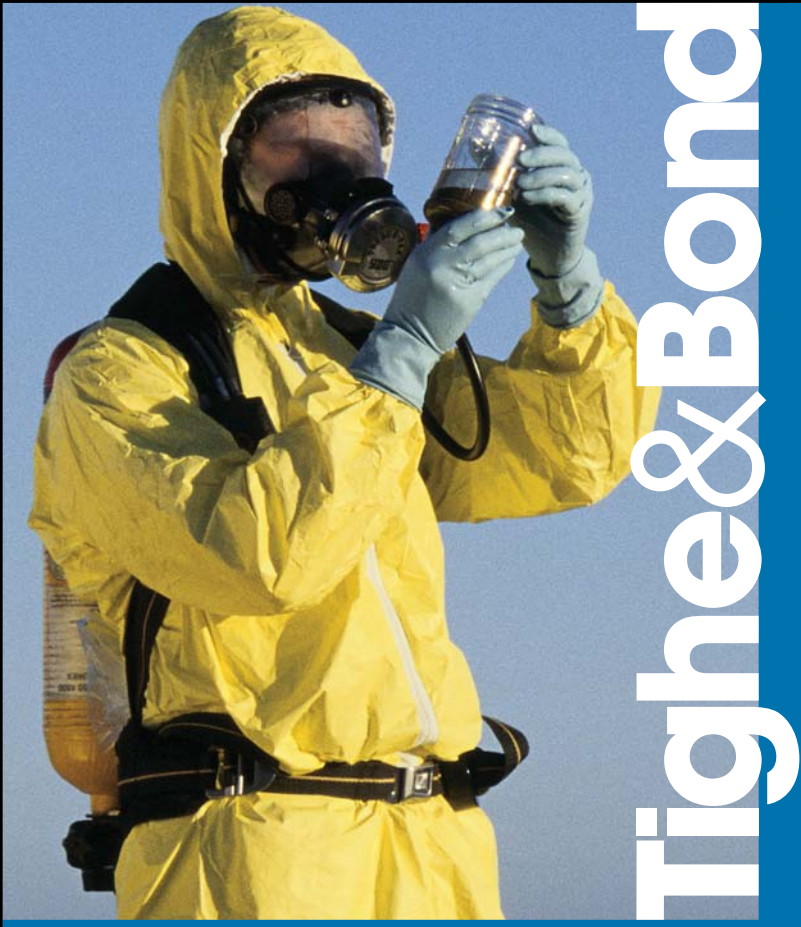
Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.

This location overlaps all or part of the following wetlands:

Riverine

[R2UBH](#)

A full description for each wetland code can be found at the National Wetlands Inventory website: <http://107.20.228.18/decoders/wetlands.aspx>



Tighe & Bond

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Brighton; Street No: 315; Street Name: electric ave; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
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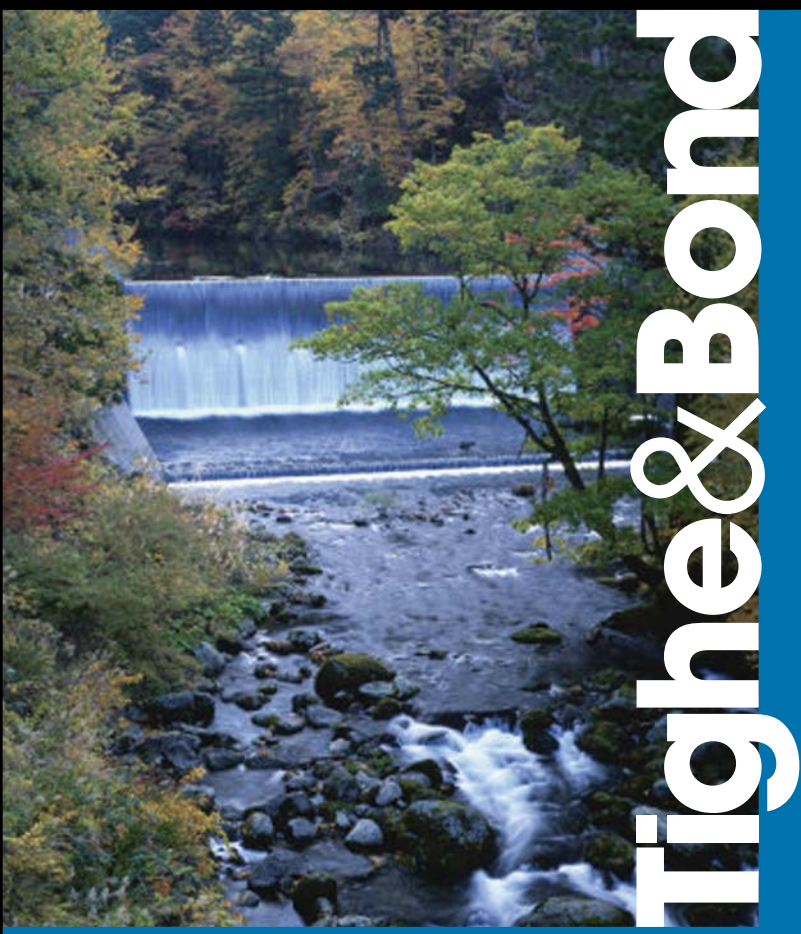
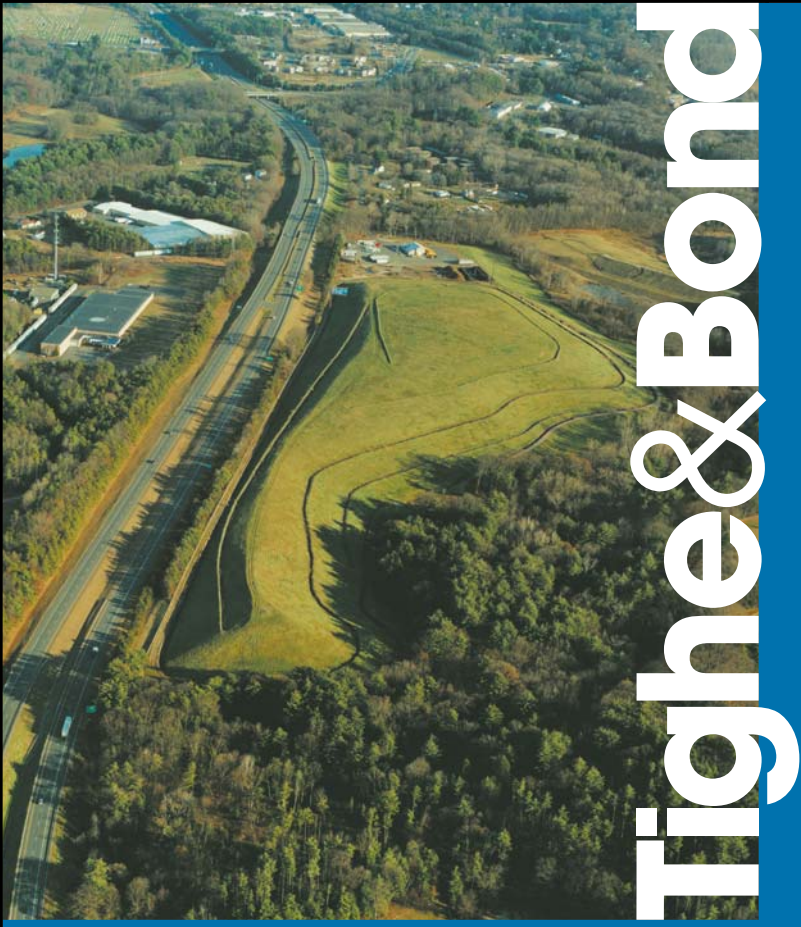


TABLE 1
Groundwater Results
 Station 315 - Transmission and Distribution
 Electric Ave, Goodenough St and N. Beacon St
 Brighton, MA

Analytical Test	Sample Identification		RGP/DGP Effluent Limit	RGP-1 (Filtered)		RGP-1 (Unfiltered)		RGP-2 (Filtered)		RGP-2 (Unfiltered)		RGP-3 (Filtered)		RGP-3 (Unfiltered)	
	Sample Date			6/15/2016	6/15/2016	6/20/2016	6/20/2016	6/20/2016	6/20/2016	8/3/2016	8/3/2016	8/3/2016	8/3/2016		
TPH - mg/L	TPH		5	< 1.4	< 1.6	< 1.6	< 1.4	< 1.6	< 1.4	< 1.6	< 1.4	< 1.6	< 1.4	< 1.6	
Total PAHs Group I - ug/L	Benzo(a)Anthracene	0.0038	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
	Benzo(a)Pyrene	0.0038	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
	Benzo(b)Fluoranthene	0.0038	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
	Benzo(k)Fluoranthene	0.0038	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Chrysene	0.0038	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Dibenzo(a,h)Anthracene	0.0038	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Indeno(1,2,3-cd)Pyrene	0.0038	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Total PAHs Group II	10.0	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Total PAHs Group II - ug/L	Acenaphthene	NE	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	
	Acenaphthylene	NE	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	< 0.30	
	Anthracene	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Benzo(ghi)Perylene	NE	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	
	Fluoranthene	NE	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
	Fluorene	NE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	Naphthalene	20	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	Phenanthrene	NE	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	< 0.050	
	Pyrene	NE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	Total PAHs Group II	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
SVOCs - ug/L	Pentachlorophenol	1.0	< 10	< 10	< 10	< 10	< 10	< 5.0	< 5.0	< 5.0	< 5.0	< 10	< 10	< 10	
	2-Methylnaphthalene	NE	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	Bis (2-Ethylhexyl) Phthalate	6.0	< 10	< 10	< 10	3.9	5.5	8.4	< 10	< 10	< 10	< 10	< 10	< 10	
	2,4-Dimethylphenol	NE	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
	Phenol	NE	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
	3/4-Methylphenol	NE	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
	All Other SVOCs	NE	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	< c/s	
Metals- ug/L	Antimony	5.6	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 2.0	< 2.0	< 2.0	< 2.0	< 10	< 10	< 10	
	Arsenic	10	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 8.0	< 8.0	< 8.0	< 8.0	< 10	< 10	< 10	
	Barium	NE	NA	NA	NA	91	96	470	< 8.0	< 8.0	< 8.0	< 8.0	< 10	< 10	
	Beryllium	NE	< 0.50	< 0.50	< 0.50	< 0.40	< 0.40	< 0.40	< 0.50	< 0.50	< 10	< 10	< 10	< 10	
	Cadmium	0.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
	Chromium	48.4	1.7	5.8	< 1.0	2.5	2.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
	Chromium (VI)	11.4	< 40	< 40	< 40	< 40	< 40	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	
	Chromium (III)	48.4	1.7	5.8	< 1.0	2.5	2.5	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	
	Copper	5.2	6.9	7.3	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
	Iron	1,000	< 0.050	0.20	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
	Lead	1.3	< 1.0	< 1.0	< 1.0	< 1.0	1.8	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	Mercury	0.9	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	Nickel	29	5.0	5.1	6.7	7.4	7.4	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	Selenium	5	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	Silver	1.2	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 10	< 10	< 10	< 10	< 10	< 10	< 10	
	Thallium	NE	NA	NA	< 0.20	< 0.20	< 0.20	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	< 4.0	
	Vanadium	NE	NA	NA	< 5.0	< 5.0	< 5.0	< 100	< 100	< 100	< 100	< 100	< 100	< 100	
	Zinc	66.6	300	350	< 10	11	< 200	< 200	< 200	< 200	< 200	< 200	< 200	< 200	
1,4-Dioxane - ug/L	1,4-Dioxane	NE	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	< 50	
1,2-Dibromothane - ug/L	1,2-Dibromothane (EDB)	0.05	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 1.0	< 1.0	< 1.0	< 1.0	
PCB - ug/L	Aroclor-1016	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1221	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1232	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1242	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1248	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1254	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1260	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1262	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
	Aroclor-1268	NE	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
Total PCBs	0.000064	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	
VOCs - ug/L	tert-Butyl Alcohol (TBA)	NE	< 20	< 20	< 20	< 20	< 20	NA	NA	NA	NA	NA	NA	NA	
	tert-Amyl Methyl Ether (TAME)	NE	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	
	Naphthalene	20	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	Carbon Tetrachloride	4.4	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,2 Dichlorobenzene (o-DCB)	600	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,3 Dichlorobenzene (m-DCB)	320	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,4 Dichlorobenzene (p-DCB)	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,1 Dichloroethane (DCA)	70.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,2 Dichloroethane (DCA)	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,1 Dichloroethene (DCE)	3.2	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	cis-1,2 Dichloroethene (DCE)	70	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	Methylene Chloride	4.6	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	
	Tetrachloroethene (PCE)	5.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	< 1.0	
	1,1,1 Trichloro-ethane (TCA)	200	< 1.0	< 1											



June 20, 2016

Michael Zylich
NSTAR Electric & Gas Corporation - Monthly Billing
One NSTAR Way, SUM SE-250
East Sandwich, MA 02090-9230

Project Location: Station 315
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 16F0797

Enclosed are results of analyses for samples received by the laboratory on June 15, 2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "James Georgantas", with a long horizontal flourish extending to the right.

James M. Georgantas
Project Manager

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

NSTAR Electric & Gas Corporation - Monthly Billi

One NSTAR Way, SUM SE-250

East Sandwich, MA 02090-9230

ATTN: Michael Zylich

REPORT DATE: 6/20/2016

PURCHASE ORDER NUMBER: 64454, Release 1

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16F0797

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

PROJECT LOCATION: Station 315

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Station 315 RGP-1 (F)	16F0797-01	Ground Water		EPA 1664B	
				EPA 420.1	
				SM19-22 4500 NH3 C	
				SM21-22 2320B	
				SM21-22 2340B	
				SM21-22 2510B	
				SM21-22 2540B	
				SM21-22 2540C	
				SM21-22 2540D	
				SM21-22 4500 CL B	
				SM21-22 4500 CL G	
				SW-846 6010C-D	
				SW-846 6020A-B	
				SW-846 7196A	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
Station 315 RGP-1 (UF)	16F0797-02	Ground Water		SW-846 9014	
				EPA 1664B	
				EPA 420.1	
				SM19-22 4500 NH3 C	
				SM21-22 2320B	
				SM21-22 2340B	
				SM21-22 2510B	
				SM21-22 2540B	
				SM21-22 2540C	
				SM21-22 2540D	
				SM21-22 4500 CL B	
				SM21-22 4500 CL G	
				SW-846 6010C-D	
				SW-846 6020A-B	
				SW-846 7196A	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
				SW-846 9014	

CASE NARRATIVE SUMMARY

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

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

SM21-22 2540B

Qualifications:**R-02**

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

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

16F0797-01[Station 315 RGP-1 (F)], B151707-DUP1

SW-846 8260C

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:**Acetone**

B151579-BSD1

Bromochloromethane

B151579-BSD1

Diisopropyl Ether (DIPE)

B151579-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

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

B151579-BSD1

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:**Bromomethane**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Methylene Chloride

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

RL-07

Elevated reporting limit based on lowest point in calibration.

MA CAM reporting limit not met.

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

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)]

Methylene Chloride

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)]

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**Dichlorodifluoromethane (Freon 12)**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Isopropylbenzene (Cumene)

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Naphthalene

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

tert-Amyl Methyl Ether (TAME)

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

trans-1,3-Dichloropropene

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Trichlorofluoromethane (Freon 11)

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

V-16

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-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:**2-Hexanone (MBK)**

B151579-BS1, B151579-BSD1

4-Methyl-2-pentanone (MIBK)

B151579-BS1, B151579-BSD1

Acetone

B151579-BS1, B151579-BSD1

SW-846 8270D**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:**Bis(2-Ethylhexyl)phthalate**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151465-BLK1, B151465-BS1, B151465-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:**4-Nitrophenol**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)]

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for "difficult analytes" where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

SW-846 8270D

Laboratory control sample recoveries for required MCP Data Enhancement 8270 compounds were all within control limits specified by the method, 40-140% for base/neutrals and 30-130% for acids except for "difficult analytes" listed below and/or otherwise listed in this narrative. Difficult analytes limits are 15 and 140%: 2,4-dinitrophenol, 4-chloroaniline, 4-nitrophenol, and phenol.

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

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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

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	6/16/16	6/16/16 16:52	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromochloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromodichloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromomethane	ND	2.0	µg/L	1	R-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2-Butanone (MEK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Carbon Disulfide	ND	5.0	µg/L	1	RL-07	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Carbon Tetrachloride	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
cis-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
trans-1,3-Dichloropropene	ND	0.40	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	6/16/16	6/16/16 16:52	MFF

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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Methylene Chloride	ND	5.0	µg/L	1	R-05, RL-07	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,2,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Tetrahydrofuran	27	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	104	70-130	6/16/16 16:52
1,2-Dichloroethane-d4	104	70-130	6/16/16 16:52
Toluene-d8	91.9	70-130	6/16/16 16:52
Toluene-d8	91.9	70-130	6/16/16 16:52
4-Bromofluorobenzene	92.7	70-130	6/16/16 16:52
4-Bromofluorobenzene	92.7	70-130	6/16/16 16:52

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

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 (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Acenaphthylene (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Acetophenone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Aniline	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(a)anthracene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(a)pyrene (low)	ND	0.10	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(b)fluoranthene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(k)fluoranthene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1	R-05	SW-846 8270D	6/15/16	6/16/16 12:03	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Butylbenzylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Chrysene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Diethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dinitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Di-n-octylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Fluoranthene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Fluorene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Hexachlorobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Hexachlorobutadiene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Hexachloroethane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Isophorone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Methylnaphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM

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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Naphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Nitrobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
4-Nitrophenol	ND	10	µg/L	1	V-20	SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Pentachlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Phenanthrene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Phenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Pyrene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Pyridine	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	49.7	15-110	
Phenol-d6	35.2	15-110	
Nitrobenzene-d5	82.0	30-130	
Nitrobenzene-d5 (low)	68.4	30-130	
2-Fluorobiphenyl	88.6	30-130	
2-Fluorobiphenyl (low)	63.9	30-130	
2,4,6-Tribromophenol	96.0	15-110	
p-Terphenyl-d14	84.8	30-130	
p-Terphenyl-d14 (low)	54.8	30-130	

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Decachlorobiphenyl [1]	89.8	30-150							
Decachlorobiphenyl [2]	84.7	30-150							
Tetrachloro-m-xylene [1]	78.3	30-150							
Tetrachloro-m-xylene [2]	72.8	30-150							

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

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 6020A-B	6/15/16	6/16/16 5:15	MJH
Arsenic	ND	0.40	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Copper	6.9	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Iron	ND	0.050	mg/L	1		SW-846 6010C-D	6/15/16	6/16/16 13:07	AME
Lead	ND	1.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Nickel	5.0	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Selenium	ND	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Zinc	330	50	µg/L	5		SW-846 6020A-B	6/15/16	6/16/16 7:30	MJH
Hardness	300	3.0	mg/L	1		SM21-22 2340B	6/16/16	6/17/16 10:00	JK

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alkalinity	62	1.0	mg/L	1		SM21-22 2320B	6/20/16	6/20/16 12:50	VAK
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/17/16	6/17/16 13:00	VAK
Chloride	700	20	mg/L	20		SM21-22 4500 CL B	6/16/16	6/16/16 16:30	DJM
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/15/16	6/15/16 20:30	AMM
Cyanide	ND	0.010	mg/L	1		SW-846 9014	6/16/16	6/16/16 12:20	VAK
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	6/15/16	6/15/16 21:10	AMM
Phenol	ND	0.050	mg/L	1		EPA 420.1	6/16/16	6/17/16 12:00	LL
Specific conductance	1900	2.0	µmhos/cm	1		SM21-22 2510B	6/17/16	6/17/16 15:15	AG
Total Solids	1200	10	mg/L	1	R-02	SM21-22 2540B	6/17/16	6/17/16 11:50	VAK
Total Suspended Solids	ND	5.0	mg/L	1		SM21-22 2540D	6/16/16	6/16/16 13:35	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	1		EPA 1664B	6/16/16	6/16/16 14:00	MMH

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	990	10	mg/L	1		SM21-22 2540C	6/17/16	6/17/16 14:00	LL

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

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	6/16/16	6/16/16 17:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromochloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromodichloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromomethane	ND	2.0	µg/L	1	R-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2-Butanone (MEK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Carbon Disulfide	ND	5.0	µg/L	1	RL-07	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Carbon Tetrachloride	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
cis-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
trans-1,3-Dichloropropene	ND	0.40	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	6/16/16	6/16/16 17:18	MFF

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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Methylene Chloride	ND	5.0	µg/L	1	R-05, RL-07	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,2,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Tetrahydrofuran	26	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
1,2-Dichloroethane-d4	104	70-130						6/16/16 17:18	
1,2-Dichloroethane-d4	104	70-130						6/16/16 17:18	
Toluene-d8	92.7	70-130						6/16/16 17:18	
Toluene-d8	92.7	70-130						6/16/16 17:18	
4-Bromofluorobenzene	92.8	70-130						6/16/16 17:18	
4-Bromofluorobenzene	92.8	70-130						6/16/16 17:18	

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

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 (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Acenaphthylene (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Acetophenone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Aniline	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(a)anthracene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(a)pyrene (low)	ND	0.10	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(b)fluoranthene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(k)fluoranthene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1	R-05	SW-846 8270D	6/15/16	6/16/16 12:39	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Butylbenzylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Chrysene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Diethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dinitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Di-n-octylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Fluoranthene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Fluorene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Hexachlorobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Hexachlorobutadiene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Hexachloroethane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Isophorone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Methylnaphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Naphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Nitrobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
4-Nitrophenol	ND	10	µg/L	1	V-20	SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Pentachlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Phenanthrene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Phenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Pyrene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Pyridine	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	53.3	15-110	
Phenol-d6	38.2	15-110	
Nitrobenzene-d5	87.2	30-130	
Nitrobenzene-d5 (low)	65.7	30-130	
2-Fluorobiphenyl	88.9	30-130	
2-Fluorobiphenyl (low)	62.1	30-130	
2,4,6-Tribromophenol	96.6	15-110	
p-Terphenyl-d14	86.0	30-130	
p-Terphenyl-d14 (low)	52.0	30-130	

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Decachlorobiphenyl [1]	87.7	30-150							
Decachlorobiphenyl [2]	83.8	30-150							
Tetrachloro-m-xylene [1]	78.9	30-150							
Tetrachloro-m-xylene [2]	74.6	30-150							

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

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 6020A-B	6/15/16	6/16/16 5:22	MJH
Arsenic	ND	0.40	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Copper	7.3	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Iron	0.20	0.050	mg/L	1		SW-846 6010C-D	6/15/16	6/16/16 13:27	AME
Lead	ND	1.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Nickel	5.1	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Selenium	ND	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Zinc	350	50	µg/L	5		SW-846 6020A-B	6/15/16	6/16/16 7:33	MJH
Hardness	320	3.0	mg/L	1		SM21-22 2340B	6/16/16	6/17/16 10:00	JK

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alkalinity	72	1.0	mg/L	1		SM21-22 2320B	6/20/16	6/20/16 12:50	VAK
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/17/16	6/17/16 13:00	VAK
Chloride	560	20	mg/L	20		SM21-22 4500 CL B	6/16/16	6/16/16 16:30	DJM
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/15/16	6/15/16 20:30	AMM
Cyanide	ND	0.010	mg/L	1		SW-846 9014	6/16/16	6/16/16 12:20	VAK
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	6/15/16	6/15/16 21:10	AMM
Phenol	ND	0.050	mg/L	1		EPA 420.1	6/16/16	6/17/16 12:00	LL
Specific conductance	1900	2.0	µmhos/cm	1		SM21-22 2510B	6/17/16	6/17/16 15:15	AG
Total Solids	1400	10	mg/L	1		SM21-22 2540B	6/17/16	6/17/16 11:50	VAK
Total Suspended Solids	ND	5.0	mg/L	1		SM21-22 2540D	6/16/16	6/16/16 13:35	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.6	mg/L	1		EPA 1664B	6/16/16	6/16/16 14:00	MMH

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Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	1300	10	mg/L	1		SM21-22 2540C	6/17/16	6/17/16 14:00	LL

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

Sample Extraction Data**EPA 1664B**

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151676	1000	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151676	900	06/16/16

EPA 420.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151610	50.0	50.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151610	50.0	50.0	06/16/16

SM19-22 4500 NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151705	100	100	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151705	100	100	06/17/16

SM21-22 2320B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151831	100	100	06/20/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151831	100	100	06/20/16

Prep Method: SW-846 3005A-SM21-22 2340B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151621	50.0	50.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151621	50.0	50.0	06/16/16

SM21-22 2510B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151678	100	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151678	100	06/17/16

SM21-22 2540B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151707	50.0	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151707	50.0	06/17/16

SM21-22 2540C

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151663	50.0	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151663	50.0	06/17/16

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Sample Extraction Data**SM21-22 2540D**

Lab Number [Field ID]	Batch	Initial [mL]	Date	
16F0797-01 [Station 315 RGP-1 (F)]	B151562	100	06/16/16	
16F0797-02 [Station 315 RGP-1 (UF)]	B151562	100	06/16/16	

SM21-22 4500 CL B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151640	100	100	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151640	100	100	06/16/16

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151531	100	100	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151531	100	100	06/15/16

Prep Method: SW-846 3005A-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151525	50.0	50.0	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151525	50.0	50.0	06/15/16

Prep Method: SW-846 3005A-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151524	50.0	50.0	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151524	50.0	50.0	06/15/16

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151532	50.0	50.0	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151532	50.0	50.0	06/15/16

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151540	1000	10.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151540	1000	10.0	06/16/16

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151579	5	5.00	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151579	5	5.00	06/16/16

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
16F0797-01 [Station 315 RGP-1 (F)]	B151465	1000	1.00	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151465	1000	1.00	06/15/16

SW-846 9014

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151601	50.0	50.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151601	50.0	50.0	06/16/16

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 B151579 - SW-846 5030B										
Blank (B151579-BLK1)				Prepared & Analyzed: 06/16/16						
Acetone	ND	10	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							V-05
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	2.0	µg/L							
Bromodichloromethane	ND	1.0	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							R-05
2-Butanone (MEK)	ND	10	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	1.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							V-05
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	0.50	µg/L							
cis-1,3-Dichloropropene	ND	0.40	µg/L							
trans-1,3-Dichloropropene	ND	0.40	µg/L							V-05
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							V-16
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.50	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							V-05
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							R-05
4-Methyl-2-pentanone (MIBK)	ND	10	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 B151579 - SW-846 5030B										
Blank (B151579-BLK1)										
Prepared & Analyzed: 06/16/16										
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	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	1.0	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	2.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							V-05
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	26.8		µg/L	25.0		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	26.8		µg/L	25.0		107	70-130			
Surrogate: Toluene-d8	23.1		µg/L	25.0		92.4	70-130			
Surrogate: Toluene-d8	23.1		µg/L	25.0		92.4	70-130			
Surrogate: 4-Bromofluorobenzene	22.2		µg/L	25.0		88.7	70-130			
Surrogate: 4-Bromofluorobenzene	22.2		µg/L	25.0		88.7	70-130			
LCS (B151579-BS1)										
Prepared & Analyzed: 06/16/16										
Acetone	145	10	µg/L	100		145	40-160			L-14, V-20 †
tert-Amyl Methyl Ether (TAME)	8.52	0.50	µg/L	10.0		85.2	70-130			V-05
Benzene	9.50	1.0	µg/L	10.0		95.0	70-130			
Bromobenzene	9.44	1.0	µg/L	10.0		94.4	70-130			
Bromochloromethane	12.5	2.0	µg/L	10.0		125	70-130			
Bromodichloromethane	9.77	1.0	µg/L	10.0		97.7	70-130			
Bromoform	11.2	1.0	µg/L	10.0		112	70-130			
Bromomethane	5.33	2.0	µg/L	10.0		53.3	40-160			L-14, R-05 †
2-Butanone (MEK)	128	10	µg/L	100		128	40-160			†
tert-Butyl Alcohol (TBA)	93.6	20	µg/L	100		93.6	40-160			†
n-Butylbenzene	9.44	1.0	µg/L	10.0		94.4	70-130			
sec-Butylbenzene	9.63	1.0	µg/L	10.0		96.3	70-130			
tert-Butylbenzene	9.01	1.0	µg/L	10.0		90.1	70-130			
tert-Butyl Ethyl Ether (TBEE)	11.0	0.50	µg/L	10.0		110	70-130			
Carbon Disulfide	11.8	5.0	µg/L	10.0		118	70-130			
Carbon Tetrachloride	9.85	1.0	µg/L	10.0		98.5	70-130			
Chlorobenzene	9.14	1.0	µg/L	10.0		91.4	70-130			
Chlorodibromomethane	9.23	0.50	µg/L	10.0		92.3	70-130			
Chloroethane	9.71	2.0	µg/L	10.0		97.1	70-130			
Chloroform	9.71	2.0	µg/L	10.0		97.1	70-130			
Chloromethane	8.58	2.0	µg/L	10.0		85.8	40-160			†
2-Chlorotoluene	9.65	1.0	µg/L	10.0		96.5	70-130			
4-Chlorotoluene	9.38	1.0	µg/L	10.0		93.8	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	7.96	2.0	µg/L	10.0		79.6	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 B151579 - SW-846 5030B										
LCS (B151579-BS1)				Prepared & Analyzed: 06/16/16						
1,2-Dibromoethane (EDB)	9.40	0.50	µg/L	10.0		94.0	70-130			
Dibromomethane	9.58	1.0	µg/L	10.0		95.8	70-130			
1,2-Dichlorobenzene	9.52	1.0	µg/L	10.0		95.2	70-130			
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,4-Dichlorobenzene	9.66	1.0	µg/L	10.0		96.6	70-130			
Dichlorodifluoromethane (Freon 12)	6.17	2.0	µg/L	10.0		61.7	40-160			L-14, V-05 †
1,1-Dichloroethane	11.0	1.0	µg/L	10.0		110	70-130			
1,2-Dichloroethane	10.8	1.0	µg/L	10.0		108	70-130			
1,1-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130			
cis-1,2-Dichloroethylene	10.1	1.0	µg/L	10.0		101	70-130			
trans-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dichloropropane	10.6	1.0	µg/L	10.0		106	70-130			
1,3-Dichloropropane	9.39	0.50	µg/L	10.0		93.9	70-130			
2,2-Dichloropropane	9.16	1.0	µg/L	10.0		91.6	70-130			
1,1-Dichloropropene	9.58	0.50	µg/L	10.0		95.8	70-130			
cis-1,3-Dichloropropene	8.31	0.40	µg/L	10.0		83.1	70-130			
trans-1,3-Dichloropropene	9.31	0.40	µg/L	10.0		93.1	70-130			V-05
Diethyl Ether	10.3	2.0	µg/L	10.0		103	70-130			
Diisopropyl Ether (DIPE)	12.5	0.50	µg/L	10.0		125	70-130			
1,4-Dioxane	102	50	µg/L	100		102	40-160			V-16 †
Ethylbenzene	10.0	1.0	µg/L	10.0		100	70-130			
Hexachlorobutadiene	10.2	0.50	µg/L	10.0		102	70-130			
2-Hexanone (MBK)	131	10	µg/L	100		131	40-160			L-14, V-20 †
Isopropylbenzene (Cumene)	9.39	1.0	µg/L	10.0		93.9	70-130			V-05
p-Isopropyltoluene (p-Cymene)	10.0	1.0	µg/L	10.0		100	70-130			
Methyl tert-Butyl Ether (MTBE)	9.00	1.0	µg/L	10.0		90.0	70-130			
Methylene Chloride	11.7	5.0	µg/L	10.0		117	70-130			R-05
4-Methyl-2-pentanone (MIBK)	131	10	µg/L	100		131	40-160			L-14, V-20 †
Naphthalene	8.61	2.0	µg/L	10.0		86.1	70-130			V-05
n-Propylbenzene	9.41	1.0	µg/L	10.0		94.1	70-130			
Styrene	9.40	1.0	µg/L	10.0		94.0	70-130			
1,1,1,2-Tetrachloroethane	10.2	1.0	µg/L	10.0		102	70-130			
1,1,2,2-Tetrachloroethane	9.04	1.0	µg/L	10.0		90.4	70-130			
Tetrachloroethylene	10.3	1.0	µg/L	10.0		103	70-130			
Tetrahydrofuran	11.2	2.0	µg/L	10.0		112	70-130			
Toluene	9.65	1.0	µg/L	10.0		96.5	70-130			
1,2,3-Trichlorobenzene	9.68	2.0	µg/L	10.0		96.8	70-130			
1,2,4-Trichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130			
1,1,1-Trichloroethane	9.71	1.0	µg/L	10.0		97.1	70-130			
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104	70-130			
Trichloroethylene	9.51	1.0	µg/L	10.0		95.1	70-130			
Trichlorofluoromethane (Freon 11)	9.74	2.0	µg/L	10.0		97.4	70-130			V-05
1,2,3-Trichloropropane	9.48	2.0	µg/L	10.0		94.8	70-130			
1,2,4-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,3,5-Trimethylbenzene	9.78	1.0	µg/L	10.0		97.8	70-130			
Vinyl Chloride	8.09	2.0	µg/L	10.0		80.9	70-130			
m+p Xylene	19.8	2.0	µg/L	20.0		99.0	70-130			
o-Xylene	9.80	1.0	µg/L	10.0		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.6		µg/L	25.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.6		µg/L	25.0		103	70-130			
Surrogate: Toluene-d8	24.7		µg/L	25.0		98.8	70-130			
Surrogate: Toluene-d8	24.7		µg/L	25.0		98.8	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 B151579 - SW-846 5030B										
LCS (B151579-BS1)					Prepared & Analyzed: 06/16/16					
Surrogate: 4-Bromofluorobenzene	25.0		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	25.0		µg/L	25.0		100	70-130			
LCS Dup (B151579-BS1)					Prepared & Analyzed: 06/16/16					
Acetone	166	10	µg/L	100		166	* 40-160	13.9	20	L-07, V-20 †
tert-Amyl Methyl Ether (TAME)	9.01	0.50	µg/L	10.0		90.1	70-130	5.59	20	V-05
Benzene	10.0	1.0	µg/L	10.0		100	70-130	5.33	20	
Bromobenzene	10.6	1.0	µg/L	10.0		106	70-130	11.9	20	
Bromochloromethane	14.3	2.0	µg/L	10.0		143	* 70-130	13.3	20	L-07
Bromodichloromethane	10.2	1.0	µg/L	10.0		102	70-130	4.01	20	
Bromoform	11.0	1.0	µg/L	10.0		110	70-130	1.53	20	
Bromomethane	6.72	2.0	µg/L	10.0		67.2	40-160	23.1	* 20	L-14, R-05 †
2-Butanone (MEK)	136	10	µg/L	100		136	40-160	6.07	20	L-14 †
tert-Butyl Alcohol (TBA)	101	20	µg/L	100		101	40-160	7.63	25	†
n-Butylbenzene	9.95	1.0	µg/L	10.0		99.5	70-130	5.26	20	
sec-Butylbenzene	10.5	1.0	µg/L	10.0		105	70-130	8.45	20	
tert-Butylbenzene	9.57	1.0	µg/L	10.0		95.7	70-130	6.03	20	
tert-Butyl Ethyl Ether (TBEE)	11.1	0.50	µg/L	10.0		111	70-130	0.815	20	
Carbon Disulfide	11.2	5.0	µg/L	10.0		112	70-130	5.24	20	
Carbon Tetrachloride	10.0	1.0	µg/L	10.0		100	70-130	1.61	20	
Chlorobenzene	9.97	1.0	µg/L	10.0		99.7	70-130	8.69	20	
Chlorodibromomethane	10.4	0.50	µg/L	10.0		104	70-130	11.9	20	
Chloroethane	10.4	2.0	µg/L	10.0		104	70-130	7.15	20	
Chloroform	9.92	2.0	µg/L	10.0		99.2	70-130	2.14	20	
Chloromethane	9.68	2.0	µg/L	10.0		96.8	40-160	12.0	20	†
2-Chlorotoluene	10.3	1.0	µg/L	10.0		103	70-130	6.42	20	
4-Chlorotoluene	10.4	1.0	µg/L	10.0		104	70-130	10.0	20	
1,2-Dibromo-3-chloropropane (DBCP)	8.18	2.0	µg/L	10.0		81.8	70-130	2.73	20	
1,2-Dibromoethane (EDB)	10.1	0.50	µg/L	10.0		101	70-130	7.57	20	
Dibromomethane	10.3	1.0	µg/L	10.0		103	70-130	6.95	20	
1,2-Dichlorobenzene	9.21	1.0	µg/L	10.0		92.1	70-130	3.31	20	
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	0.978	20	
1,4-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	5.34	20	
Dichlorodifluoromethane (Freon 12)	6.39	2.0	µg/L	10.0		63.9	40-160	3.50	20	L-14, V-05 †
1,1-Dichloroethane	11.5	1.0	µg/L	10.0		115	70-130	4.09	20	
1,2-Dichloroethane	11.4	1.0	µg/L	10.0		114	70-130	5.21	20	
1,1-Dichloroethylene	11.3	1.0	µg/L	10.0		113	70-130	8.46	20	
cis-1,2-Dichloroethylene	10.3	1.0	µg/L	10.0		103	70-130	2.06	20	
trans-1,2-Dichloroethylene	10.7	1.0	µg/L	10.0		107	70-130	1.98	20	
1,2-Dichloropropane	11.0	1.0	µg/L	10.0		110	70-130	3.81	20	
1,3-Dichloropropane	9.94	0.50	µg/L	10.0		99.4	70-130	5.69	20	
2,2-Dichloropropane	10.2	1.0	µg/L	10.0		102	70-130	10.4	20	
1,1-Dichloropropene	10.2	0.50	µg/L	10.0		102	70-130	6.76	20	
cis-1,3-Dichloropropene	8.60	0.40	µg/L	10.0		86.0	70-130	3.43	20	
trans-1,3-Dichloropropene	9.07	0.40	µg/L	10.0		90.7	70-130	2.61	20	V-05
Diethyl Ether	11.0	2.0	µg/L	10.0		110	70-130	6.40	20	
Diisopropyl Ether (DIPE)	13.7	0.50	µg/L	10.0		137	* 70-130	8.86	20	L-07
1,4-Dioxane	98.2	50	µg/L	100		98.2	40-160	4.13	20	V-16 †
Ethylbenzene	10.8	1.0	µg/L	10.0		108	70-130	7.11	20	
Hexachlorobutadiene	11.4	0.50	µg/L	10.0		114	70-130	11.2	20	
2-Hexanone (MBK)	140	10	µg/L	100		140	40-160	6.51	20	L-14, V-20 †
Isopropylbenzene (Cumene)	9.94	1.0	µg/L	10.0		99.4	70-130	5.69	20	V-05

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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 B151579 - SW-846 5030B										
LCS Dup (B151579-BSD1)				Prepared & Analyzed: 06/16/16						
p-Isopropyltoluene (p-Cymene)	10.2	1.0	µg/L	10.0		102	70-130	1.88	20	
Methyl tert-Butyl Ether (MTBE)	9.31	1.0	µg/L	10.0		93.1	70-130	3.39	20	
Methylene Chloride	14.8	5.0	µg/L	10.0		148	* 70-130	23.3	* 20	L-07A, R-05
4-Methyl-2-pentanone (MIBK)	137	10	µg/L	100		137	40-160	4.71	20	L-14, V-20 †
Naphthalene	8.87	2.0	µg/L	10.0		88.7	70-130	2.97	20	V-05
n-Propylbenzene	10.3	1.0	µg/L	10.0		103	70-130	9.03	20	
Styrene	10.2	1.0	µg/L	10.0		102	70-130	7.77	20	
1,1,1,2-Tetrachloroethane	10.6	1.0	µg/L	10.0		106	70-130	4.12	20	
1,1,2,2-Tetrachloroethane	9.73	1.0	µg/L	10.0		97.3	70-130	7.35	20	
Tetrachloroethylene	11.5	1.0	µg/L	10.0		115	70-130	10.6	20	
Tetrahydrofuran	11.5	2.0	µg/L	10.0		115	70-130	2.55	20	
Toluene	10.1	1.0	µg/L	10.0		101	70-130	4.75	20	
1,2,3-Trichlorobenzene	10.5	2.0	µg/L	10.0		105	70-130	8.41	20	
1,2,4-Trichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	0.893	20	
1,1,1-Trichloroethane	9.60	1.0	µg/L	10.0		96.0	70-130	1.14	20	
1,1,2-Trichloroethane	9.64	1.0	µg/L	10.0		96.4	70-130	7.39	20	
Trichloroethylene	10.0	1.0	µg/L	10.0		100	70-130	5.12	20	
Trichlorofluoromethane (Freon 11)	10.5	2.0	µg/L	10.0		105	70-130	7.60	20	V-05
1,2,3-Trichloropropane	10.1	2.0	µg/L	10.0		101	70-130	6.43	20	
1,2,4-Trimethylbenzene	10.6	1.0	µg/L	10.0		106	70-130	3.83	20	
1,3,5-Trimethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	6.14	20	
Vinyl Chloride	8.30	2.0	µg/L	10.0		83.0	70-130	2.56	20	
m+p Xylene	20.3	2.0	µg/L	20.0		102	70-130	2.54	20	
o-Xylene	10.2	1.0	µg/L	10.0		102	70-130	3.61	20	
Surrogate: 1,2-Dichloroethane-d4	24.1		µg/L	25.0		96.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.1		µg/L	25.0		96.3	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.2	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.0		µg/L	25.0		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	24.0		µg/L	25.0		96.0	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
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Batch B151465 - SW-846 3510C

Blank (B151465-BLK1)

Prepared & Analyzed: 06/15/16

Acenaphthene	ND	5.0	µg/L							
Acenaphthene (low)	ND	0.30	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acenaphthylene (low)	ND	0.30	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Anthracene (low)	ND	0.20	µg/L							
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)anthracene (low)	ND	0.050	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(a)pyrene (low)	ND	0.10	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(b)fluoranthene (low)	ND	0.050	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzo(k)fluoranthene (low)	ND	0.20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							R-05
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Chrysene (low)	ND	0.20	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluoranthene (low)	ND	0.50	µg/L							
Fluorene	ND	5.0	µg/L							
Fluorene (low)	ND	1.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							

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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
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Batch B151465 - SW-846 3510C

Blank (B151465-BLK1)

Prepared & Analyzed: 06/15/16

Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L							
Isophorone	ND	10	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene (low)	ND	1.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
Naphthalene (low)	ND	1.0	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene	ND	5.0	µg/L							
Phenanthrene (low)	ND	0.050	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyrene (low)	ND	1.0	µg/L							
Pyridine	ND	5.0	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							

Surrogate: 2-Fluorophenol	118		µg/L	200		58.8	15-110			
Surrogate: Phenol-d6	83.6		µg/L	200		41.8	15-110			
Surrogate: Nitrobenzene-d5	93.3		µg/L	100		93.3	30-130			
Surrogate: Nitrobenzene-d5 (low)	69.4		µg/L	100		69.4	30-130			
Surrogate: 2-Fluorobiphenyl	95.4		µg/L	100		95.4	30-130			
Surrogate: 2-Fluorobiphenyl (low)	68.6		µg/L	100		68.6	30-130			
Surrogate: 2,4,6-Tribromophenol	183		µg/L	200		91.5	15-110			
Surrogate: p-Terphenyl-d14	115		µg/L	100		115	30-130			
Surrogate: p-Terphenyl-d14 (low)	56.8		µg/L	100		56.8	30-130			

LCS (B151465-BS1)

Prepared & Analyzed: 06/15/16

Acenaphthene	45.6	5.0	µg/L	50.0		91.2	40-140			
Acenaphthene (low)	45.3	7.5	µg/L	50.0		90.6	40-140			
Acenaphthylene	45.9	5.0	µg/L	50.0		91.7	40-140			
Acenaphthylene (low)	47.8	7.5	µg/L	50.0		95.6	40-140			
Acetophenone	44.9	10	µg/L	50.0		89.7	40-140			
Aniline	44.1	5.0	µg/L	50.0		88.1	40-140			
Anthracene	47.9	5.0	µg/L	50.0		95.8	40-140			
Anthracene (low)	48.9	5.0	µg/L	50.0		97.8	40-140			
Benzo(a)anthracene	49.4	5.0	µg/L	50.0		98.7	40-140			
Benzo(a)anthracene (low)	48.8	1.2	µg/L	50.0		97.6	40-140			
Benzo(a)pyrene	50.4	5.0	µg/L	50.0		101	40-140			
Benzo(a)pyrene (low)	55.0	2.5	µg/L	50.0		110	40-140			
Benzo(b)fluoranthene	48.7	5.0	µg/L	50.0		97.5	40-140			
Benzo(b)fluoranthene (low)	56.0	1.2	µg/L	50.0		112	40-140			
Benzo(g,h,i)perylene	49.0	5.0	µg/L	50.0		97.9	40-140			
Benzo(g,h,i)perylene (low)	51.3	12	µg/L	50.0		103	40-140			
Benzo(k)fluoranthene	49.2	5.0	µg/L	50.0		98.4	40-140			
Benzo(k)fluoranthene (low)	51.8	5.0	µg/L	50.0		104	40-140			

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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 B151465 - SW-846 3510C										
LCS (B151465-BS1)				Prepared & Analyzed: 06/15/16						
Bis(2-chloroethoxy)methane	49.4	10	µg/L	50.0		98.8	40-140			
Bis(2-chloroethyl)ether	47.8	10	µg/L	50.0		95.5	40-140			
Bis(2-chloroisopropyl)ether	46.3	10	µg/L	50.0		92.6	40-140			
Bis(2-Ethylhexyl)phthalate	67.5	10	µg/L	50.0		135	40-140			R-05
4-Bromophenylphenylether	49.0	10	µg/L	50.0		97.9	40-140			
Butylbenzylphthalate	55.5	10	µg/L	50.0		111	40-140			
4-Chloroaniline	48.9	10	µg/L	50.0		97.8	15-140			†
2-Chloronaphthalene	41.8	10	µg/L	50.0		83.5	40-140			
2-Chlorophenol	41.6	10	µg/L	50.0		83.1	30-130			
Chrysene	46.4	5.0	µg/L	50.0		92.7	40-140			
Chrysene (low)	45.3	5.0	µg/L	50.0		90.6	40-140			
Dibenz(a,h)anthracene	49.0	5.0	µg/L	50.0		98.1	40-140			
Dibenz(a,h)anthracene (low)	53.2	5.0	µg/L	50.0		106	40-140			
Dibenzofuran	50.7	5.0	µg/L	50.0		101	40-140			
Di-n-butylphthalate	51.9	10	µg/L	50.0		104	40-140			
1,2-Dichlorobenzene	42.1	5.0	µg/L	50.0		84.2	40-140			
1,3-Dichlorobenzene	39.9	5.0	µg/L	50.0		79.8	40-140			
1,4-Dichlorobenzene	41.3	5.0	µg/L	50.0		82.6	40-140			
3,3-Dichlorobenzidine	44.7	10	µg/L	50.0		89.4	40-140			
2,4-Dichlorophenol	44.8	10	µg/L	50.0		89.6	30-130			
Diethylphthalate	53.1	10	µg/L	50.0		106	40-140			
2,4-Dimethylphenol	42.4	10	µg/L	50.0		84.7	30-130			
Dimethylphthalate	51.7	10	µg/L	50.0		103	40-140			
2,4-Dinitrophenol	44.5	10	µg/L	50.0		89.0	15-140			†
2,4-Dinitrotoluene	53.6	10	µg/L	50.0		107	40-140			
2,6-Dinitrotoluene	52.9	10	µg/L	50.0		106	40-140			
Di-n-octylphthalate	54.9	10	µg/L	50.0		110	40-140			
1,2-Diphenylhydrazine (as Azobenzene)	48.9	10	µg/L	50.0		97.8	40-140			
Fluoranthene	50.0	5.0	µg/L	50.0		100	40-140			
Fluoranthene (low)	52.4	12	µg/L	50.0		105	40-140			
Fluorene	47.9	5.0	µg/L	50.0		95.8	40-140			
Fluorene (low)	46.4	25	µg/L	50.0		92.7	40-140			
Hexachlorobenzene	44.3	10	µg/L	50.0		88.6	40-140			
Hexachlorobutadiene	42.9	10	µg/L	50.0		85.9	40-140			
Hexachloroethane	42.8	10	µg/L	50.0		85.6	40-140			
Indeno(1,2,3-cd)pyrene	49.7	5.0	µg/L	50.0		99.4	40-140			
Indeno(1,2,3-cd)pyrene (low)	51.9	5.0	µg/L	50.0		104	40-140			
Isophorone	50.2	10	µg/L	50.0		100	40-140			
2-Methylnaphthalene	46.2	5.0	µg/L	50.0		92.4	40-140			
2-Methylnaphthalene (low)	44.4	25	µg/L	50.0		88.7	40-140			
2-Methylphenol	42.2	10	µg/L	50.0		84.4	30-130			
3/4-Methylphenol	40.3	10	µg/L	50.0		80.6	30-130			
Naphthalene	41.9	5.0	µg/L	50.0		83.9	40-140			
Naphthalene (low)	38.0	25	µg/L	50.0		75.9	40-140			
Nitrobenzene	45.6	10	µg/L	50.0		91.2	40-140			
2-Nitrophenol	43.2	10	µg/L	50.0		86.5	30-130			
4-Nitrophenol	33.7	10	µg/L	50.0		67.3	15-140			†
Pentachlorophenol	35.7	10	µg/L	50.0		71.4	30-130			
Phenanthrene	47.5	5.0	µg/L	50.0		95.0	40-140			
Phenanthrene (low)	45.5	1.2	µg/L	50.0		91.0	40-140			
Phenol	24.3	10	µg/L	50.0		48.6	15-140			†
Pyrene	49.1	5.0	µg/L	50.0		98.1	40-140			

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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
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Batch B151465 - SW-846 3510C

LCS (B151465-BS1)

Prepared: 06/15/16 Analyzed: 06/16/16

Pyrene (low)	47.3	25	µg/L	50.0		94.6	40-140			
Pyridine	18.7	5.0	µg/L	50.0		37.4	10-140			†
1,2,4-Trichlorobenzene	42.7	5.0	µg/L	50.0		85.4	40-140			
2,4,5-Trichlorophenol	46.4	10	µg/L	50.0		92.8	30-130			
2,4,6-Trichlorophenol	46.2	10	µg/L	50.0		92.4	30-130			
Surrogate: 2-Fluorophenol	129		µg/L	200		64.5	15-110			
Surrogate: Phenol-d6	93.6		µg/L	200		46.8	15-110			
Surrogate: Nitrobenzene-d5	96.8		µg/L	100		96.8	30-130			
Surrogate: Nitrobenzene-d5 (low)	78.4		µg/L	100		78.4	30-130			
Surrogate: 2-Fluorobiphenyl	97.7		µg/L	100		97.7	30-130			
Surrogate: 2-Fluorobiphenyl (low)	91.0		µg/L	100		91.0	30-130			
Surrogate: 2,4,6-Tribromophenol	203		µg/L	200		102	15-110			
Surrogate: p-Terphenyl-d14	111		µg/L	100		111	30-130			
Surrogate: p-Terphenyl-d14 (low)	67.7		µg/L	100		67.7	30-130			

LCS Dup (B151465-BS1)

Prepared & Analyzed: 06/15/16

Acenaphthene	43.7	5.0	µg/L	50.0		87.4	40-140	4.34	20	
Acenaphthene (low)	47.7	7.5	µg/L	50.0		95.4	40-140	5.16	20	
Acenaphthylene	44.2	5.0	µg/L	50.0		88.4	40-140	3.73	20	
Acenaphthylene (low)	50.5	7.5	µg/L	50.0		101	40-140	5.49	20	
Acetophenone	40.8	10	µg/L	50.0		81.7	40-140	9.38	20	
Aniline	41.5	5.0	µg/L	50.0		83.0	40-140	5.96	20	
Anthracene	46.4	5.0	µg/L	50.0		92.9	40-140	3.14	20	
Anthracene (low)	49.8	5.0	µg/L	50.0		99.6	40-140	1.87	20	
Benzo(a)anthracene	47.7	5.0	µg/L	50.0		95.5	40-140	3.32	20	
Benzo(a)anthracene (low)	49.5	1.2	µg/L	50.0		99.0	40-140	1.42	20	
Benzo(a)pyrene	48.6	5.0	µg/L	50.0		97.1	40-140	3.70	20	
Benzo(a)pyrene (low)	56.4	2.5	µg/L	50.0		113	40-140	2.42	20	
Benzo(b)fluoranthene	46.1	5.0	µg/L	50.0		92.3	40-140	5.50	20	
Benzo(b)fluoranthene (low)	57.7	1.2	µg/L	50.0		115	40-140	3.12	20	
Benzo(g,h,i)perylene	46.9	5.0	µg/L	50.0		93.9	40-140	4.23	20	
Benzo(g,h,i)perylene (low)	52.2	12	µg/L	50.0		104	40-140	1.64	20	
Benzo(k)fluoranthene	45.9	5.0	µg/L	50.0		91.8	40-140	7.00	20	
Benzo(k)fluoranthene (low)	53.0	5.0	µg/L	50.0		106	40-140	2.29	20	
Bis(2-chloroethoxy)methane	47.0	10	µg/L	50.0		93.9	40-140	5.04	20	
Bis(2-chloroethyl)ether	43.8	10	µg/L	50.0		87.7	40-140	8.54	20	
Bis(2-chloroisopropyl)ether	42.4	10	µg/L	50.0		84.8	40-140	8.77	20	
Bis(2-Ethylhexyl)phthalate	52.6	10	µg/L	50.0		105	40-140	24.8 *	20	R-05
4-Bromophenylphenylether	48.7	10	µg/L	50.0		97.3	40-140	0.594	20	
Butylbenzylphthalate	52.1	10	µg/L	50.0		104	40-140	6.30	20	
4-Chloroaniline	45.4	10	µg/L	50.0		90.8	15-140	7.45	20	†
2-Chloronaphthalene	40.7	10	µg/L	50.0		81.5	40-140	2.50	20	
2-Chlorophenol	38.4	10	µg/L	50.0		76.8	30-130	7.85	20	
Chrysene	43.6	5.0	µg/L	50.0		87.2	40-140	6.16	20	
Chrysene (low)	46.2	5.0	µg/L	50.0		92.3	40-140	1.86	20	
Dibenz(a,h)anthracene	47.8	5.0	µg/L	50.0		95.7	40-140	2.46	20	
Dibenz(a,h)anthracene (low)	54.4	5.0	µg/L	50.0		109	40-140	2.32	20	
Dibenzofuran	48.0	5.0	µg/L	50.0		95.9	40-140	5.63	20	
Di-n-butylphthalate	49.3	10	µg/L	50.0		98.5	40-140	5.22	20	
1,2-Dichlorobenzene	38.9	5.0	µg/L	50.0		77.9	40-140	7.82	20	
1,3-Dichlorobenzene	37.5	5.0	µg/L	50.0		75.0	40-140	6.23	20	
1,4-Dichlorobenzene	38.2	5.0	µg/L	50.0		76.4	40-140	7.80	20	

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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 B151465 - SW-846 3510C										
LCS Dup (B151465-BSD1)				Prepared & Analyzed: 06/15/16						
3,3-Dichlorobenzidine	40.1	10	µg/L	50.0		80.2	40-140	10.9	20	
2,4-Dichlorophenol	42.4	10	µg/L	50.0		84.9	30-130	5.43	20	
Diethylphthalate	49.3	10	µg/L	50.0		98.5	40-140	7.45	20	
2,4-Dimethylphenol	38.6	10	µg/L	50.0		77.2	30-130	9.21	20	
Dimethylphthalate	48.0	10	µg/L	50.0		96.0	40-140	7.32	20	
2,4-Dinitrophenol	42.6	10	µg/L	50.0		85.3	15-140	4.31	20	†
2,4-Dinitrotoluene	48.9	10	µg/L	50.0		97.9	40-140	9.07	20	
2,6-Dinitrotoluene	49.2	10	µg/L	50.0		98.4	40-140	7.23	20	
Di-n-octylphthalate	51.2	10	µg/L	50.0		102	40-140	6.95	20	
1,2-Diphenylhydrazine (as Azobenzene)	48.8	10	µg/L	50.0		97.7	40-140	0.0614	20	
Fluoranthene	46.6	5.0	µg/L	50.0		93.1	40-140	7.17	20	
Fluoranthene (low)	55.2	12	µg/L	50.0		110	40-140	5.11	20	
Fluorene	45.7	5.0	µg/L	50.0		91.3	40-140	4.79	20	
Fluorene (low)	49.4	25	µg/L	50.0		98.8	40-140	6.42	20	
Hexachlorobenzene	44.6	10	µg/L	50.0		89.2	40-140	0.653	20	
Hexachlorobutadiene	41.4	10	µg/L	50.0		82.8	40-140	3.70	20	
Hexachloroethane	39.3	10	µg/L	50.0		78.5	40-140	8.65	20	
Indeno(1,2,3-cd)pyrene	47.7	5.0	µg/L	50.0		95.4	40-140	4.09	20	
Indeno(1,2,3-cd)pyrene (low)	52.8	5.0	µg/L	50.0		106	40-140	1.77	20	
Isophorone	47.5	10	µg/L	50.0		95.0	40-140	5.43	20	
2-Methylnaphthalene	44.6	5.0	µg/L	50.0		89.2	40-140	3.59	20	
2-Methylnaphthalene (low)	48.0	25	µg/L	50.0		96.1	40-140	8.01	20	
2-Methylphenol	37.9	10	µg/L	50.0		75.7	30-130	10.8	20	
3/4-Methylphenol	35.6	10	µg/L	50.0		71.2	30-130	12.4	20	
Naphthalene	41.5	5.0	µg/L	50.0		83.0	40-140	1.03	20	
Naphthalene (low)	41.6	25	µg/L	50.0		83.2	40-140	9.24	20	
Nitrobenzene	44.0	10	µg/L	50.0		88.0	40-140	3.62	20	
2-Nitrophenol	42.8	10	µg/L	50.0		85.5	30-130	1.12	20	
4-Nitrophenol	29.8	10	µg/L	50.0		59.5	15-140	12.3	20	†
Pentachlorophenol	34.4	10	µg/L	50.0		68.8	30-130	3.74	20	
Phenanthrene	45.8	5.0	µg/L	50.0		91.6	40-140	3.67	20	
Phenanthrene (low)	46.7	1.2	µg/L	50.0		93.4	40-140	2.66	20	
Phenol	22.0	10	µg/L	50.0		44.1	15-140	9.80	20	†
Pyrene	47.0	5.0	µg/L	50.0		94.0	40-140	4.25	20	
Pyrene (low)	48.8	25	µg/L	50.0		97.5	40-140	3.02	20	
Pyridine	25.2	5.0	µg/L	50.0		50.4	10-140	29.6	50	† ‡
1,2,4-Trichlorobenzene	41.0	5.0	µg/L	50.0		82.0	40-140	4.04	20	
2,4,5-Trichlorophenol	44.2	10	µg/L	50.0		88.4	30-130	4.79	20	
2,4,6-Trichlorophenol	43.8	10	µg/L	50.0		87.6	30-130	5.36	20	
Surrogate: 2-Fluorophenol	116		µg/L	200		57.9	15-110			
Surrogate: Phenol-d6	82.2		µg/L	200		41.1	15-110			
Surrogate: Nitrobenzene-d5	92.5		µg/L	100		92.5	30-130			
Surrogate: Nitrobenzene-d5 (low)	87.1		µg/L	100		87.1	30-130			
Surrogate: 2-Fluorobiphenyl	94.8		µg/L	100		94.8	30-130			
Surrogate: 2-Fluorobiphenyl (low)	96.8		µg/L	100		96.8	30-130			
Surrogate: 2,4,6-Tribromophenol	189		µg/L	200		94.7	15-110			
Surrogate: p-Terphenyl-d14	105		µg/L	100		105	30-130			
Surrogate: p-Terphenyl-d14 (low)	69.9		µg/L	100		69.9	30-130			

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QUALITY CONTROL
Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151540 - SW-846 3510C										
Blank (B151540-BLK1)										
Prepared & Analyzed: 06/16/16										
Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	1.53		µg/L	2.00		76.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.41		µg/L	2.00		70.5	30-150			
Surrogate: Tetrachloro-m-xylene	1.61		µg/L	2.00		80.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.48		µg/L	2.00		73.8	30-150			
LCS (B151540-BS1)										
Prepared & Analyzed: 06/16/16										
Aroclor-1016	0.46	0.20	µg/L	0.500		91.7	40-140			
Aroclor-1016 [2C]	0.43	0.20	µg/L	0.500		85.2	40-140			
Aroclor-1260	0.45	0.20	µg/L	0.500		89.5	40-140			
Aroclor-1260 [2C]	0.41	0.20	µg/L	0.500		81.2	40-140			
Surrogate: Decachlorobiphenyl	1.78		µg/L	2.00		89.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.64		µg/L	2.00		82.0	30-150			
Surrogate: Tetrachloro-m-xylene	1.68		µg/L	2.00		84.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.53		µg/L	2.00		76.6	30-150			
LCS Dup (B151540-BSD1)										
Prepared & Analyzed: 06/16/16										
Aroclor-1016	0.45	0.20	µg/L	0.500		89.1	40-140	2.78	20	
Aroclor-1016 [2C]	0.42	0.20	µg/L	0.500		84.2	40-140	1.22	20	
Aroclor-1260	0.44	0.20	µg/L	0.500		87.1	40-140	2.68	20	
Aroclor-1260 [2C]	0.40	0.20	µg/L	0.500		79.4	40-140	2.27	20	
Surrogate: Decachlorobiphenyl	1.56		µg/L	2.00		78.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.46		µg/L	2.00		73.1	30-150			
Surrogate: Tetrachloro-m-xylene	1.60		µg/L	2.00		79.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.48		µg/L	2.00		73.8	30-150			

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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
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Batch B151524 - SW-846 3005A
Blank (B151524-BLK1)

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	ND	1.0	µg/L							
Arsenic	ND	0.40	µg/L							
Cadmium	ND	0.50	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							
Zinc	ND	10	µg/L							

LCS (B151524-BS1)

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	536	10	µg/L	500		107	80-120			
Arsenic	531	4.0	µg/L	500		106	80-120			
Cadmium	528	5.0	µg/L	500		106	80-120			
Copper	522	50	µg/L	500		104	80-120			
Lead	553	10	µg/L	500		111	80-120			
Nickel	519	50	µg/L	500		104	80-120			
Selenium	561	50	µg/L	500		112	80-120			
Silver	510	5.0	µg/L	500		102	80-120			
Zinc	568	100	µg/L	500		114	80-120			

LCS Dup (B151524-BSD1)

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	562	10	µg/L	500		112	80-120	4.61	20	
Arsenic	551	4.0	µg/L	500		110	80-120	3.64	20	
Cadmium	546	5.0	µg/L	500		109	80-120	3.37	20	
Copper	537	50	µg/L	500		107	80-120	2.85	20	
Lead	572	10	µg/L	500		114	80-120	3.50	20	
Nickel	533	50	µg/L	500		107	80-120	2.63	20	
Selenium	573	50	µg/L	500		115	80-120	2.11	20	
Silver	532	5.0	µg/L	500		106	80-120	4.08	20	
Zinc	578	100	µg/L	500		116	80-120	1.83	20	

Duplicate (B151524-DUP1)
Source: 16F0797-01

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	ND	1.0	µg/L		ND			NC	20	
Arsenic	ND	0.40	µg/L		ND			NC	20	
Cadmium	ND	0.50	µg/L		ND			NC	20	
Copper	7.23	5.0	µg/L		6.95			3.93	20	
Lead	ND	1.0	µg/L		ND			NC	20	
Nickel	5.13	5.0	µg/L		5.04			1.78	20	
Selenium	ND	5.0	µg/L		ND			NC	20	
Silver	ND	0.50	µg/L		ND			NC	20	
Zinc	275	10	µg/L		331			18.5	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
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Batch B151524 - SW-846 3005A

Matrix Spike (B151524-MS1)		Source: 16F0797-01		Prepared: 06/15/16 Analyzed: 06/16/16						
Antimony	566	10	µg/L	500	ND	113	75-125			
Arsenic	549	4.0	µg/L	500	ND	110	75-125			
Cadmium	523	5.0	µg/L	500	0.0899	105	75-125			
Copper	524	50	µg/L	500	6.95	103	75-125			
Lead	579	10	µg/L	500	ND	116	75-125			
Nickel	531	50	µg/L	500	5.04	105	75-125			
Selenium	559	50	µg/L	500	1.78	112	75-125			
Silver	498	5.0	µg/L	500	ND	99.5	75-125			
Zinc	894	100	µg/L	500	331	112	75-125			

Batch B151525 - SW-846 3005A

Blank (B151525-BLK1)		Prepared: 06/15/16 Analyzed: 06/16/16								
Iron	ND	0.050	mg/L							
LCS (B151525-BS1)		Prepared: 06/15/16 Analyzed: 06/16/16								
Iron	0.529	0.050	mg/L	0.500		106	80-120			
LCS Dup (B151525-BSD1)		Prepared: 06/15/16 Analyzed: 06/16/16								
Iron	0.520	0.050	mg/L	0.500		104	80-120	1.69	20	
Duplicate (B151525-DUP1)		Source: 16F0797-01		Prepared: 06/15/16 Analyzed: 06/16/16						
Iron	ND	0.050	mg/L		ND			NC	20	
Matrix Spike (B151525-MS1)		Source: 16F0797-01		Prepared: 06/15/16 Analyzed: 06/16/16						
Iron	0.539	0.050	mg/L	0.500	0.0222	103	75-125			

Batch B151621 - SW-846 3005A

Blank (B151621-BLK1)		Prepared: 06/16/16 Analyzed: 06/17/16								
Hardness	ND	3.0	mg/L							

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151531 - SM21-22 4500 CL G										
Blank (B151531-BLK1)				Prepared & Analyzed: 06/15/16						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B151531-BS1)				Prepared & Analyzed: 06/15/16						
Chlorine, Residual	1.3	0.020	mg/L	1.20		110	88.1-128			
LCS Dup (B151531-BSD1)				Prepared & Analyzed: 06/15/16						
Chlorine, Residual	1.3	0.020	mg/L	1.20		110	88.1-128	0.00	5	
Duplicate (B151531-DUP1)				Source: 16F0797-02			Prepared & Analyzed: 06/15/16			
Chlorine, Residual	ND	0.020	mg/L		ND			NC	47.3	
Matrix Spike (B151531-MS1)				Source: 16F0797-02			Prepared & Analyzed: 06/15/16			
Chlorine, Residual	1.1	0.020	mg/L	1.00	ND	105	10-170			
Batch B151532 - SW-846 7196A										
Blank (B151532-BLK1)				Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B151532-BS1)				Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	0.097	0.0040	mg/L	0.100		97.1	80-120			
LCS Dup (B151532-BSD1)				Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	0.098	0.0040	mg/L	0.100		98.3	80-120	1.25	20	
Duplicate (B151532-DUP1)				Source: 16F0797-01			Prepared & Analyzed: 06/15/16			
Hexavalent Chromium	ND	0.0040	mg/L		ND			NC	20	
Matrix Spike (B151532-MS1)				Source: 16F0797-01			Prepared & Analyzed: 06/15/16			
Hexavalent Chromium	0.097	0.0040	mg/L	0.100	ND	97.1	75-125			
Matrix Spike Dup (B151532-MSD1)				Source: 16F0797-01			Prepared & Analyzed: 06/15/16			
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	101	75-125	3.69	20	
Batch B151562 - SM21-22 2540D										
Blank (B151562-BLK1)				Prepared & Analyzed: 06/16/16						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B151562-BS1)				Prepared & Analyzed: 06/16/16						
Total Suspended Solids	192	10	mg/L	200		96.0	70.1-116			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151601 - SW-846 9014										
Blank (B151601-BLK1)				Prepared & Analyzed: 06/16/16						
Cyanide	ND	0.010	mg/L							
LCS (B151601-BS1)				Prepared & Analyzed: 06/16/16						
Cyanide	0.67	0.010	mg/L	0.736		91.5	80-120			
LCS Dup (B151601-BSD1)				Prepared & Analyzed: 06/16/16						
Cyanide	0.69	0.010	mg/L	0.736		93.1	80-120	1.68	20	
Matrix Spike (B151601-MS1)				Source: 16F0797-02		Prepared & Analyzed: 06/16/16				
Cyanide	0.34	0.010	mg/L	0.346	ND	97.7	75-125			
Matrix Spike Dup (B151601-MSD1)				Source: 16F0797-02		Prepared & Analyzed: 06/16/16				
Cyanide	0.35	0.010	mg/L	0.346	ND	102	75-125	4.14	20	
Batch B151610 - EPA 420.1										
Blank (B151610-BLK1)				Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	ND	0.050	mg/L							
LCS (B151610-BS1)				Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	0.48	0.050	mg/L	0.500		96.4	78.8-123			
LCS Dup (B151610-BSD1)				Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	0.49	0.050	mg/L	0.500		98.0	78.8-123	1.66	11.3	
Duplicate (B151610-DUP1)				Source: 16F0797-01		Prepared: 06/16/16 Analyzed: 06/17/16				
Phenol	ND	0.050	mg/L		ND			NC	35.7	
Matrix Spike (B151610-MS1)				Source: 16F0797-01		Prepared: 06/16/16 Analyzed: 06/17/16				
Phenol	0.50	0.050	mg/L	0.500	ND	99.6	45.1-136			
Batch B151640 - SM21-22 4500 CL B										
Blank (B151640-BLK1)				Prepared & Analyzed: 06/16/16						
Chloride	ND	1.0	mg/L							
LCS (B151640-BS1)				Prepared & Analyzed: 06/16/16						
Chloride	10	1.0	mg/L	10.6		97.3	87.5-112			
LCS Dup (B151640-BSD1)				Prepared & Analyzed: 06/16/16						
Chloride	10	1.0	mg/L	10.6		97.3	87.5-112	0.00	8.07	

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151676 - EPA 1664B										
Blank (B151676-BLK1)				Prepared & Analyzed: 06/16/16						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B151676-BS1)				Prepared & Analyzed: 06/16/16						
Silica Gel Treated HEM (SGT-HEM)	9.8		mg/L	10.0		98.0	64-132			
Duplicate (B151676-DUP1)				Source: 16F0797-01		Prepared & Analyzed: 06/16/16				
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L		ND			NC	18	
Matrix Spike (B151676-MS1)				Source: 16F0797-02		Prepared & Analyzed: 06/16/16				
Silica Gel Treated HEM (SGT-HEM)	98	14	mg/L	100	ND	98.0	64-132			
Batch B151678 - SM21-22 2510B										
Blank (B151678-BLK1)				Prepared & Analyzed: 06/17/16						
Specific conductance	ND	2.0	µmhos/cm							
LCS (B151678-BS1)				Prepared & Analyzed: 06/17/16						
Specific conductance	230		µmhos/cm	234		96.7	90.6-110			
Duplicate (B151678-DUP1)				Source: 16F0797-01		Prepared & Analyzed: 06/17/16				
Specific conductance	1900	2.0	µmhos/cm		1900			0.116	14.4	
Batch B151705 - SM19-22 4500 NH3 C										
Blank (B151705-BLK1)				Prepared & Analyzed: 06/17/16						
Ammonia as N	ND	0.30	mg/L							
LCS (B151705-BS1)				Prepared & Analyzed: 06/17/16						
Ammonia as N	5.0	0.30	mg/L	5.00		100	82.1-110			
LCS Dup (B151705-BSD1)				Prepared & Analyzed: 06/17/16						
Ammonia as N	5.0	0.30	mg/L	5.00		100	82.1-110	0.00	7.33	
Batch B151707 - SM21-22 2540B										
Blank (B151707-BLK1)				Prepared & Analyzed: 06/17/16						
Total Solids	ND	5.0	mg/L							
LCS (B151707-BS1)				Prepared & Analyzed: 06/17/16						
Total Solids	184	5.0	mg/L	200		92.0	65.3-127			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151707 - SM21-22 2540B										
Duplicate (B151707-DUP1)		Source: 16F0797-01			Prepared & Analyzed: 06/17/16					
Total Solids	1300	10	mg/L		1200			11.1	*	5 R-02
Batch B151831 - SM21-22 2320B										
Blank (B151831-BLK1)		Prepared & Analyzed: 06/20/16								
Alkalinity	ND	1.0	mg/L							
LCS (B151831-BS1)		Prepared & Analyzed: 06/20/16								
Alkalinity	28		mg/L	27.8		100	85.7-110			
LCS Dup (B151831-BSD1)		Prepared & Analyzed: 06/20/16								
Alkalinity	28		mg/L	27.8		100	85.7-110	0.00	6.6	

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B151663 - SM21-22 2540C
Blank (B151663-BLK1)

Prepared & Analyzed: 06/17/16

Total Dissolved Solids	ND	10	mg/L							
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LCS (B151663-BS1)

Prepared & Analyzed: 06/17/16

Total Dissolved Solids	270	10	mg/L	293		91.1	58.2-116			
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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B151540-BS1 Date(s) Analyzed: 06/16/2016 06/16/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.46	
	2	0.00	0.00	0.00	0.43	6
Aroclor-1260	1	0.00	0.00	0.00	0.45	
	2	0.00	0.00	0.00	0.41	9

**IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES***SW-846 8082A***LCS Dup**Lab Sample ID: B151540-BSD1 Date(s) Analyzed: 06/16/2016 06/16/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.45	
	2	0.00	0.00	0.00	0.42	6
Aroclor-1260	1	0.00	0.00	0.00	0.44	
	2	0.00	0.00	0.00	0.40	9

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
DL	Method Detection Limit
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.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
RL-07	Elevated reporting limit based on lowest point in calibration. MA CAM reporting limit not met.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
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.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 420.1 in Water</i>	
Phenol	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM19-22 4500 NH3 C in Water</i>	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
<i>SM21-22 2320B in Water</i>	
Alkalinity	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2340B in Water</i>	
Hardness	CT,MA,NH,NY
<i>SM21-22 2510B in Water</i>	
Specific conductance	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2540B in Water</i>	
Total Solids	NY,CT,RI,NH,NC,ME,VA
<i>SM21-22 2540C in Water</i>	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2540D in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 4500 CL B in Water</i>	
Chloride	NH,CT,MA,NY,RI,NC,ME,VA
<i>SM21-22 4500 CL G in Water</i>	
Chlorine, Residual	CT,MA,RI,ME
<i>SW-846 6010C-D in Water</i>	
Iron	CT,NH,NY,ME,VA,NC
<i>SW-846 6020A-B in Water</i>	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,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
Zinc	CT,NH,NY,ME,VA,NC
<i>SW-846 7196A in Water</i>	
Hexavalent Chromium	CT,NH,NY,NC,ME,VA
<i>SW-846 8082A in Water</i>	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8082A in Water</i>	
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
<i>SW-846 8260C in Water</i>	
Acetone	CT,NY,ME,NH,VA
Acetone	CT,NH,NY,ME
tert-Amyl Methyl Ether (TAME)	NY,ME,NH,VA
tert-Amyl Methyl Ether (TAME)	NH,NY,ME
Benzene	CT,NY,ME,NH,VA
Benzene	CT,NH,NY,ME
Bromobenzene	ME
Bromochloromethane	NH,NY,ME
Bromochloromethane	NY,ME,NH,VA
Bromodichloromethane	CT,NH,NY,ME
Bromodichloromethane	CT,NY,ME,NH,VA
Bromoform	CT,NH,NY,ME
Bromoform	CT,NY,ME,NH,VA
Bromomethane	CT,NH,NY,ME
Bromomethane	CT,NY,ME,NH,VA
2-Butanone (MEK)	CT,NH,NY,ME
2-Butanone (MEK)	CT,NY,ME,NH,VA
tert-Butyl Alcohol (TBA)	NY,ME,NH,VA
n-Butylbenzene	NY,ME
n-Butylbenzene	NY,ME,VA
sec-Butylbenzene	NY,ME,VA
sec-Butylbenzene	NY,ME
tert-Butylbenzene	NY,ME,VA
tert-Butylbenzene	NY,ME
tert-Butyl Ethyl Ether (TBEE)	NH,NY,ME
tert-Butyl Ethyl Ether (TBEE)	NY,ME,NH,VA
Carbon Disulfide	CT,NY,ME,NH,VA
Carbon Disulfide	CT,NH,NY,ME
Carbon Tetrachloride	CT,NY,ME,NH,VA
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NY,ME,NH,VA
Chlorobenzene	CT,NH,NY,ME
Chlorodibromomethane	CT,NH,NY,ME
Chlorodibromomethane	CT,NY,ME,NH,VA
Chloroethane	CT,NY,ME,NH,VA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Chloroethane	CT,NH,NY,ME
Chloroform	CT,NY,ME,NH,VA
Chloroform	CT,NH,NY,ME
Chloromethane	CT,NY,ME,NH,VA
Chloromethane	CT,NH,NY,ME
2-Chlorotoluene	NY,ME
2-Chlorotoluene	NY,ME,NH,VA
4-Chlorotoluene	NY,ME
4-Chlorotoluene	NY,ME,NH,VA
Dibromomethane	NH,NY,ME
Dibromomethane	NY,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,3-Dichlorobenzene	CT,NY,ME,NH,VA
1,4-Dichlorobenzene	CT,NY,ME,NH,VA
1,4-Dichlorobenzene	CT,NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME,NH,VA
1,1-Dichloroethane	CT,NY,ME,NH,VA
1,1-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NH,NY,ME
1,2-Dichloroethane	CT,NY,ME,NH,VA
1,1-Dichloroethylene	CT,NY,ME,NH,VA
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	NY,ME
cis-1,2-Dichloroethylene	NY,ME
trans-1,2-Dichloroethylene	CT,NH,NY,ME
trans-1,2-Dichloroethylene	CT,NY,ME,NH,VA
1,2-Dichloropropane	CT,NY,ME,NH,VA
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NY,ME
1,3-Dichloropropane	NY,ME,VA
2,2-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NY,ME,NH,VA
1,1-Dichloropropene	NH,NY,ME
1,1-Dichloropropene	NY,ME,NH,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME
cis-1,3-Dichloropropene	CT,NY,ME,NH,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME
trans-1,3-Dichloropropene	CT,NY,ME,NH,VA
Diisopropyl Ether (DIPE)	NH,NY,ME
Diisopropyl Ether (DIPE)	NY,ME,NH,VA
Ethylbenzene	CT,NH,NY,ME
Ethylbenzene	CT,NY,ME,NH,VA
Hexachlorobutadiene	CT,NH,NY,ME
Hexachlorobutadiene	CT,NY,ME,NH,VA

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
2-Hexanone (MBK)	CT,NY,ME,NH,VA
2-Hexanone (MBK)	CT,NH,NY,ME
Isopropylbenzene (Cumene)	NY,ME
Isopropylbenzene (Cumene)	NY,ME,VA
p-Isopropyltoluene (p-Cymene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	CT,NY,ME,NH,VA
Methyl tert-Butyl Ether (MTBE)	CT,NY,ME,NH,VA
Methyl tert-Butyl Ether (MTBE)	CT,NH,NY,ME
Methylene Chloride	CT,NY,ME,NH,VA
Methylene Chloride	CT,NH,NY,ME
4-Methyl-2-pentanone (MIBK)	CT,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME
Naphthalene	NY,ME,NH,VA
Naphthalene	NH,NY,ME
n-Propylbenzene	CT,NY,ME,NH,VA
n-Propylbenzene	CT,NH,NY,ME
Styrene	CT,NH,NY,ME
Styrene	CT,NY,ME,NH,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NY,ME,NH,VA
Tetrachloroethylene	CT,NY,ME,NH,VA
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
Toluene	CT,NY,ME,NH,VA
1,2,3-Trichlorobenzene	NH,NY,ME
1,2,3-Trichlorobenzene	NY,ME,NH,VA
1,2,4-Trichlorobenzene	CT,NY,ME,NH,VA
1,2,4-Trichlorobenzene	CT,NH,NY,ME
1,1,1-Trichloroethane	CT,NY,ME,NH,VA
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NY,ME,NH,VA
Trichloroethylene	CT,NY,ME,NH,VA
Trichloroethylene	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
1,2,3-Trichloropropane	NH,NY,ME
1,2,3-Trichloropropane	NY,ME,NH,VA
1,2,4-Trimethylbenzene	NY,ME
1,2,4-Trimethylbenzene	NY,ME,VA
1,3,5-Trimethylbenzene	NY,ME
1,3,5-Trimethylbenzene	NY,ME,VA
Vinyl Chloride	CT,NH,NY,ME
Vinyl Chloride	CT,NY,ME,NH,VA
m+p Xylene	CT,NH,NY,ME

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
m+p Xylene	CT,NY,ME,NH,VA
o-Xylene	CT,NY,ME,NH,VA
o-Xylene	CT,NH,NY,ME
<i>SW-846 8270D in Water</i>	
Aniline	CT,NY
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	CT,NY,NH
1,3-Dichlorobenzene	CT,NY,NH
1,4-Dichlorobenzene	CT,NY,NH
3,3-Dichlorobenzidine	CT,NY,NH
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH
Phenol	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH
<i>SW-846 9014 in Water</i>	
Cyanide	NY,CT,NH,NC,ME,VA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2017
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

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con-test
ANALYTICAL LABORATORY

Page 1 of 2

Sample Receipt Checklist

CLIENT NAME: NSTAR / Eversource - Monthly Billing RECEIVED BY: CLM DATE: 6/15/16

1) Was the chain(s) of custody relinquished and signed? Yes ☒ No ☐ No COC Incl.

2) Does the chain agree with the samples? Yes ☒ No ☐

If not, explain:

3) Are all the samples in good condition? Yes ☒ No ☐

If not, explain:

4) How were the samples received:

On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)? Yes ☒ No ☐ N/A ☐

Temperature °C by Temp blank ☐ Temperature °C by Temp gun 4.6°C

5) Are there Dissolved samples for the lab to filter? Yes ☐ No ☒

Who was notified ☐ Date ☐ Time ☐

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes ☒ No ☐

Who was notified Amber Date 6/15/16 Time 1700

7) Location where samples are stored: login

Permission to subcontract samples? Yes No

(Walk-in clients only) if not already approved

Client Signature: _____

8) Do all samples have the proper Acid pH: Yes ☒ No ☐ N/A ☐

9) Do all samples have the proper Base pH: Yes ☒ No ☐ N/A ☐

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes ☐ N/A ☒

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	<u>12</u>	16 oz amber	
500 mL Amber	<u>2</u>	8 oz amber/clear jar	
250 mL Amber (8oz amber)		4 oz amber/clear jar	
1 Liter Plastic	<u>2</u>	2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic	<u>8</u>	SOC Kit	
40 mL Vial - type listed below	<u>12</u>	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

40 mL vials: # HCl 6 # Methanol ☐

Time and Date Frozen: _____

Doc# 277 # Bisulfate ☐ # DI Water ☐

Rev. 4 August 2013 # Thiosulfate 6 Unpreserved ☐

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	4.6°C
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	T	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?

Log-In Technician Initials:

CMMC

Date/Time:

Date/Time: 6/15/16

1700

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory				Project #: 16F0797	
Project Location: Station 315				RTN:	
This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)] 16F0797-01 thru 16F0797-02					
Matrices: Water					
CAM Protocol (check all that below)					
8260 VOC CAM II A (X)	7470/7471 Hg CAM IIIB ()	MassDEP VPH CAM IV A ()	8081 Pesticides CAM V B ()	7196 Hex Cr CAM VI B (X)	MassDEP APH CAM IX A ()
8270 SVOC CAM II B (X)	7010 Metals CAM III C ()	MassDEP EPH CAM IV A ()	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A ()	6020 Metals CAM III D (X)	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A (X)	6860 Perchlorate CAM VIII B ()	
Affirmative response to questions A through I is required for "Presumptive Certainty" status					
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?				☒ Yes ☐ No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?				☒ Yes ☐ No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?				☒ Yes ☐ No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?				☒ Yes ☐ No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).				☐ Yes ☐ No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?				☐ Yes ☐ No ¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?				☒ Yes ☐ No ¹
A response to questions G, H and I below is required for "Presumptive Certainty" status					
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?				☐ Yes ☒ No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40.1056 (2)(k) and WSC-07-350.					
H	Were all QC performance standards specified in the CAM protocol(s) achieved?				☐ Yes ☒ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?				☐ Yes ☒ No ¹
¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.					
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.					
Signature: _____ 		Position: Project Manager			
Printed Name: Lisa A. Worthington		Date: 06/20/16			

June 22, 2016

Michael Zylich
NSTAR Electric & Gas Corporation - Monthly Billing
One NSTAR Way, SUM SE-250
East Sandwich, MA 02090-9230

Project Location: Station 315
Client Job Number:
Project Number: [none]
Laboratory Work Order Number: 16F0797

Enclosed are results of analyses for samples received by the laboratory on June 15, 2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



James M. Georgantas
Project Manager

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

NSTAR Electric & Gas Corporation - Monthly Billi
One NSTAR Way, SUM SE-250
East Sandwich, MA 02090-9230
ATTN: Michael Zylich

REPORT DATE: 6/22/2016

PURCHASE ORDER NUMBER: 64454, Release 1

PROJECT NUMBER: [none]

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16F0797

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

PROJECT LOCATION: Station 315

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Station 315 RGP-1 (F)	16F0797-01	Ground Water		EPA 1664B	
				EPA 420.1	
				SM19-22 4500 NH3 C	
				SM21-22 2320B	
				SM21-22 2340B	
				SM21-22 2510B	
				SM21-22 2540B	
				SM21-22 2540C	
				SM21-22 2540D	
				SM21-22 4500 CL B	
				SM21-22 4500 CL G	
				SW-846 6010C-D	
				SW-846 6020A-B	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
				SW-846 9014	
Station 315 RGP-1 (UF)	16F0797-02	Ground Water		EPA 1664B	
				EPA 420.1	
				SM19-22 4500 NH3 C	
				SM21-22 2320B	
				SM21-22 2340B	
				SM21-22 2510B	
				SM21-22 2540B	
				SM21-22 2540C	
				SM21-22 2540D	
				SM21-22 4500 CL B	
				SM21-22 4500 CL G	
				SW-846 6010C-D	
				SW-846 6020A-B	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	
				SW-846 9014	

CASE NARRATIVE SUMMARY

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

For method 6010, only a select list of metals was requested and reported.

Qualifications:**R-02**

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

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

16F0797-01[Station 315 RGP-1 (F)], B151707-DUP1

SW-846 8260C

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:**Acetone**

B151579-BSD1

Bromochloromethane

B151579-BSD1

Diisopropyl Ether (DIPE)

B151579-BSD1

L-07A

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.

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

B151579-BSD1

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:**Bromomethane**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Methylene Chloride

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

RL-07

Elevated reporting limit based on lowest point in calibration.

MA CAM reporting limit not met.

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

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)]

Methylene Chloride

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)]

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**Dichlorodifluoromethane (Freon 12)**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Isopropylbenzene (Cumene)

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Naphthalene

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

tert-Amyl Methyl Ether (TAME)

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

trans-1,3-Dichloropropene

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

Trichlorofluoromethane (Freon 11)

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-BSD1

V-16

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151579-BLK1, B151579-BS1, B151579-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:**2-Hexanone (MBK)**

B151579-BS1, B151579-BSD1

4-Methyl-2-pentanone (MIBK)

B151579-BS1, B151579-BSD1

Acetone

B151579-BS1, B151579-BSD1

SW-846 8270D**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:**Bis(2-Ethylhexyl)phthalate**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)], B151465-BLK1, B151465-BS1, B151465-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:**4-Nitrophenol**

16F0797-01[Station 315 RGP-1 (F)], 16F0797-02[Station 315 RGP-1 (UF)]

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for "difficult analytes" where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

SW-846 8270D

Laboratory control sample recoveries for required MCP Data Enhancement 8270 compounds were all within control limits specified by the method, 40-140% for base/neutrals and 30-130% for acids except for "difficult analytes" listed below and/or otherwise listed in this narrative. Difficult analytes limits are 15 and 140%: 2,4-dinitrophenol, 4-chloroaniline, 4-nitrophenol, and phenol.

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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

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	6/16/16	6/16/16 16:52	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromochloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromodichloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Bromomethane	ND	2.0	µg/L	1	R-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2-Butanone (MEK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Carbon Disulfide	ND	5.0	µg/L	1	RL-07	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Carbon Tetrachloride	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
cis-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
trans-1,3-Dichloropropene	ND	0.40	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	6/16/16	6/16/16 16:52	MFF

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Methylene Chloride	ND	5.0	µg/L	1	R-05, RL-07	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,2,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Tetrahydrofuran	27	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 16:52	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	104	70-130	6/16/16 16:52
1,2-Dichloroethane-d4	104	70-130	6/16/16 16:52
Toluene-d8	91.9	70-130	6/16/16 16:52
Toluene-d8	91.9	70-130	6/16/16 16:52
4-Bromofluorobenzene	92.7	70-130	6/16/16 16:52
4-Bromofluorobenzene	92.7	70-130	6/16/16 16:52

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

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 (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Acenaphthylene (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Acetophenone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Aniline	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(a)anthracene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(a)pyrene (low)	ND	0.10	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(b)fluoranthene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Benzo(k)fluoranthene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1	R-05	SW-846 8270D	6/15/16	6/16/16 12:03	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Butylbenzylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Chrysene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Diethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dinitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Di-n-octylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Fluoranthene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Fluorene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Hexachlorobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Hexachlorobutadiene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Hexachloroethane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Isophorone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Methylnaphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Naphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Nitrobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
4-Nitrophenol	ND	10	µg/L	1	V-20	SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Pentachlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Phenanthrene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Phenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
Pyrene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:24	CJM
Pyridine	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:03	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	49.7	15-110	6/16/16 12:03
Phenol-d6	35.2	15-110	6/16/16 12:03
Nitrobenzene-d5	82.0	30-130	6/16/16 12:03
Nitrobenzene-d5 (low)	68.4	30-130	6/20/16 10:24
2-Fluorobiphenyl	88.6	30-130	6/16/16 12:03
2-Fluorobiphenyl (low)	63.9	30-130	6/20/16 10:24
2,4,6-Tribromophenol	96.0	15-110	6/16/16 12:03
p-Terphenyl-d14	84.8	30-130	6/16/16 12:03
p-Terphenyl-d14 (low)	54.8	30-130	6/20/16 10:24

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date	Date/Time	Analyst
							Prepared	Analyzed	
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:00	BJH
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		89.8	30-150					6/16/16 12:00	
Decachlorobiphenyl [2]		84.7	30-150					6/16/16 12:00	
Tetrachloro-m-xylene [1]		78.3	30-150					6/16/16 12:00	
Tetrachloro-m-xylene [2]		72.8	30-150					6/16/16 12:00	



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

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 6020A-B	6/15/16	6/16/16 5:15	MJH
Arsenic	ND	0.40	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Chromium	1.7	1.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Copper	6.9	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Iron	ND	0.050	mg/L	1		SW-846 6010C-D	6/15/16	6/16/16 13:07	AME
Lead	ND	1.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	6/22/16	6/22/16 12:01	SCB
Nickel	5.0	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Selenium	ND	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:15	MJH
Zinc	330	50	µg/L	5		SW-846 6020A-B	6/15/16	6/16/16 7:30	MJH
Hardness	300	3.0	mg/L	1		SM21-22 2340B	6/16/16	6/17/16 10:00	JK



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alkalinity	62	1.0	mg/L	1		SM21-22 2320B	6/20/16	6/20/16 12:50	VAK
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/17/16	6/17/16 13:00	VAK
Chloride	700	20	mg/L	20		SM21-22 4500 CL B	6/16/16	6/16/16 16:30	DJM
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/15/16	6/15/16 20:30	AMM
Cyanide	ND	0.010	mg/L	1		SW-846 9014	6/16/16	6/16/16 12:20	VAK
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	6/15/16	6/15/16 21:10	AMM
Phenol	ND	0.050	mg/L	1		EPA 420.1	6/16/16	6/17/16 12:00	LL
Specific conductance	1900	2.0	µmhos/cm	1		SM21-22 2510B	6/17/16	6/17/16 15:15	AG
Total Solids	1200	10	mg/L	1	R-02	SM21-22 2540B	6/17/16	6/17/16 11:50	VAK
Total Suspended Solids	ND	5.0	mg/L	1		SM21-22 2540D	6/16/16	6/16/16 13:35	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	1		EPA 1664B	6/16/16	6/16/16 14:00	MMH



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (F)

Sampled: 6/15/2016 12:00

Sample ID: 16F0797-01

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	990	10	mg/L	1		SM21-22 2540C	6/17/16	6/17/16 14:00	LL

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

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	6/16/16	6/16/16 17:18	MFF
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Benzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromochloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromodichloromethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromoform	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Bromomethane	ND	2.0	µg/L	1	R-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2-Butanone (MEK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
tert-Butyl Alcohol (TBA)	ND	20	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Carbon Disulfide	ND	5.0	µg/L	1	RL-07	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Carbon Tetrachloride	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Chloromethane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
cis-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
trans-1,3-Dichloropropene	ND	0.40	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,4-Dioxane	ND	50	µg/L	1	V-16	SW-846 8260C	6/16/16	6/16/16 17:18	MFF

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Hexachlorobutadiene	ND	0.50	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Methylene Chloride	ND	5.0	µg/L	1	R-05, RL-07	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Naphthalene	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Styrene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,2,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Tetrahydrofuran	26	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Toluene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1	V-05	SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	6/16/16	6/16/16 17:18	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	104	70-130	6/16/16 17:18
1,2-Dichloroethane-d4	104	70-130	6/16/16 17:18
Toluene-d8	92.7	70-130	6/16/16 17:18
Toluene-d8	92.7	70-130	6/16/16 17:18
4-Bromofluorobenzene	92.8	70-130	6/16/16 17:18
4-Bromofluorobenzene	92.8	70-130	6/16/16 17:18

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

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 (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Acenaphthylene (low)	ND	0.30	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Acetophenone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Aniline	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(a)anthracene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(a)pyrene (low)	ND	0.10	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(b)fluoranthene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Benzo(k)fluoranthene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L	1	R-05	SW-846 8270D	6/15/16	6/16/16 12:39	BGL
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Butylbenzylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Chrysene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
3,3-Dichlorobenzidine	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Diethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dinitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Di-n-octylphthalate	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Fluoranthene (low)	ND	0.50	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Fluorene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Hexachlorobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Hexachlorobutadiene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Hexachloroethane	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Isophorone	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Methylnaphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Naphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Nitrobenzene	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
4-Nitrophenol	ND	10	µg/L	1	V-20	SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Pentachlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Phenanthrene (low)	ND	0.050	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Phenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
Pyrene (low)	ND	1.0	µg/L	1		SW-846 8270D	6/15/16	6/20/16 10:54	CJM
Pyridine	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	6/15/16	6/16/16 12:39	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	53.3	15-110	6/16/16 12:39
Phenol-d6	38.2	15-110	6/16/16 12:39
Nitrobenzene-d5	87.2	30-130	6/16/16 12:39
Nitrobenzene-d5 (low)	65.7	30-130	6/20/16 10:54
2-Fluorobiphenyl	88.9	30-130	6/16/16 12:39
2-Fluorobiphenyl (low)	62.1	30-130	6/20/16 10:54
2,4,6-Tribromophenol	96.6	15-110	6/16/16 12:39
p-Terphenyl-d14	86.0	30-130	6/16/16 12:39
p-Terphenyl-d14 (low)	52.0	30-130	6/20/16 10:54

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date	Date/Time	Analyst
							Prepared	Analyzed	
Aroclor-1016 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1221 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1232 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1242 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1248 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1254 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1260 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1262 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Aroclor-1268 [1]	ND	0.20	µg/L	1		SW-846 8082A	6/16/16	6/16/16 12:13	BJH
Surrogates		% Recovery	Recovery Limits		Flag/Qual				
Decachlorobiphenyl [1]		87.7	30-150					6/16/16 12:13	
Decachlorobiphenyl [2]		83.8	30-150					6/16/16 12:13	
Tetrachloro-m-xylene [1]		78.9	30-150					6/16/16 12:13	
Tetrachloro-m-xylene [2]		74.6	30-150					6/16/16 12:13	



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

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 6020A-B	6/15/16	6/16/16 5:22	MJH
Arsenic	ND	0.40	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Cadmium	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Chromium	5.8	1.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Copper	7.3	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Iron	0.20	0.050	mg/L	1		SW-846 6010C-D	6/15/16	6/16/16 13:27	AME
Lead	ND	1.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	6/22/16	6/22/16 12:03	SCB
Nickel	5.1	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Selenium	ND	5.0	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Silver	ND	0.50	µg/L	1		SW-846 6020A-B	6/15/16	6/16/16 5:22	MJH
Zinc	350	50	µg/L	5		SW-846 6020A-B	6/15/16	6/16/16 7:33	MJH
Hardness	320	3.0	mg/L	1		SM21-22 2340B	6/16/16	6/17/16 10:00	JK



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alkalinity	72	1.0	mg/L	1		SM21-22 2320B	6/20/16	6/20/16 12:50	VAK
Ammonia as N	ND	0.30	mg/L	1		SM19-22 4500 NH3 C	6/17/16	6/17/16 13:00	VAK
Chloride	560	20	mg/L	20		SM21-22 4500 CL B	6/16/16	6/16/16 16:30	DJM
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	6/15/16	6/15/16 20:30	AMM
Cyanide	ND	0.010	mg/L	1		SW-846 9014	6/16/16	6/16/16 12:20	VAK
Hexavalent Chromium	ND	0.0040	mg/L	1		SW-846 7196A	6/15/16	6/15/16 21:10	AMM
Phenol	ND	0.050	mg/L	1		EPA 420.1	6/16/16	6/17/16 12:00	LL
Specific conductance	1900	2.0	µmhos/cm	1		SM21-22 2510B	6/17/16	6/17/16 15:15	AG
Total Solids	1400	10	mg/L	1		SM21-22 2540B	6/17/16	6/17/16 11:50	VAK
Total Suspended Solids	ND	5.0	mg/L	1		SM21-22 2540D	6/16/16	6/16/16 13:35	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.6	mg/L	1		EPA 1664B	6/16/16	6/16/16 14:00	MMH



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

Project Location: Station 315

Sample Description:

Work Order: 16F0797

Date Received: 6/15/2016

Field Sample #: Station 315 RGP-1 (UF)

Sampled: 6/15/2016 12:30

Sample ID: 16F0797-02

Sample Matrix: Ground Water

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	1300	10	mg/L	1		SM21-22 2540C	6/17/16	6/17/16 14:00	LL

Sample Extraction Data**EPA 1664B**

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151676	1000	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151676	900	06/16/16

EPA 420.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151610	50.0	50.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151610	50.0	50.0	06/16/16

SM19-22 4500 NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151705	100	100	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151705	100	100	06/17/16

SM21-22 2320B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151831	100	100	06/20/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151831	100	100	06/20/16

Prep Method: SW-846 3005A-SM21-22 2340B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151621	50.0	50.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151621	50.0	50.0	06/16/16

SM21-22 2510B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151678	100	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151678	100	06/17/16

SM21-22 2540B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151707	50.0	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151707	50.0	06/17/16

SM21-22 2540C

Lab Number [Field ID]	Batch	Initial [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151663	50.0	06/17/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151663	50.0	06/17/16

Sample Extraction Data**SM21-22 2540D**

Lab Number [Field ID]	Batch	Initial [mL]	Date	
16F0797-01 [Station 315 RGP-1 (F)]	B151562	100	06/16/16	
16F0797-02 [Station 315 RGP-1 (UF)]	B151562	100	06/16/16	

SM21-22 4500 CL B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151640	100	100	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151640	100	100	06/16/16

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151531	100	100	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151531	100	100	06/15/16

Prep Method: SW-846 3005A-SW-846 6010C-D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151525	50.0	50.0	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151525	50.0	50.0	06/15/16

Prep Method: SW-846 3005A-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151524	50.0	50.0	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151524	50.0	50.0	06/15/16

SW-846 7196A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151532	50.0	50.0	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151532	50.0	50.0	06/15/16

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151999	6.00	6.00	06/22/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151999	6.00	6.00	06/22/16

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151540	1000	10.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151540	1000	10.0	06/16/16



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
16F0797-01 [Station 315 RGP-1 (F)]	B151579	5	5.00	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151579	5	5.00	06/16/16

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151465	1000	1.00	06/15/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151465	1000	1.00	06/15/16

SW-846 9014

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16F0797-01 [Station 315 RGP-1 (F)]	B151601	50.0	50.0	06/16/16
16F0797-02 [Station 315 RGP-1 (UF)]	B151601	50.0	50.0	06/16/16

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 B151579 - SW-846 5030B										
Blank (B151579-BLK1)				Prepared & Analyzed: 06/16/16						
Acetone	ND	10	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							V-05
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	2.0	µg/L							
Bromodichloromethane	ND	1.0	µg/L							
Bromoform	ND	1.0	µg/L							
Bromomethane	ND	2.0	µg/L							R-05
2-Butanone (MEK)	ND	10	µg/L							
tert-Butyl Alcohol (TBA)	ND	20	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	1.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							V-05
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	0.50	µg/L							
cis-1,3-Dichloropropene	ND	0.40	µg/L							
trans-1,3-Dichloropropene	ND	0.40	µg/L							V-05
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							V-16
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.50	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							V-05
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							R-05
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							

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 B151579 - SW-846 5030B										
Blank (B151579-BLK1)				Prepared & Analyzed: 06/16/16						
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	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	1.0	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	2.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							V-05
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	µg/L							
m+p Xylene	ND	2.0	µg/L							
o-Xylene	ND	1.0	µg/L							
Surrogate: 1,2-Dichloroethane-d4	26.8		µg/L	25.0		107	70-130			
Surrogate: 1,2-Dichloroethane-d4	26.8		µg/L	25.0		107	70-130			
Surrogate: Toluene-d8	23.1		µg/L	25.0		92.4	70-130			
Surrogate: Toluene-d8	23.1		µg/L	25.0		92.4	70-130			
Surrogate: 4-Bromofluorobenzene	22.2		µg/L	25.0		88.7	70-130			
Surrogate: 4-Bromofluorobenzene	22.2		µg/L	25.0		88.7	70-130			
LCS (B151579-BS1)				Prepared & Analyzed: 06/16/16						
Acetone	145	10	µg/L	100		145	40-160			L-14, V-20 †
tert-Amyl Methyl Ether (TAME)	8.52	0.50	µg/L	10.0		85.2	70-130			V-05
Benzene	9.50	1.0	µg/L	10.0		95.0	70-130			
Bromobenzene	9.44	1.0	µg/L	10.0		94.4	70-130			
Bromochloromethane	12.5	2.0	µg/L	10.0		125	70-130			
Bromodichloromethane	9.77	1.0	µg/L	10.0		97.7	70-130			
Bromoform	11.2	1.0	µg/L	10.0		112	70-130			
Bromomethane	5.33	2.0	µg/L	10.0		53.3	40-160			L-14, R-05 †
2-Butanone (MEK)	128	10	µg/L	100		128	40-160			†
tert-Butyl Alcohol (TBA)	93.6	20	µg/L	100		93.6	40-160			†
n-Butylbenzene	9.44	1.0	µg/L	10.0		94.4	70-130			
sec-Butylbenzene	9.63	1.0	µg/L	10.0		96.3	70-130			
tert-Butylbenzene	9.01	1.0	µg/L	10.0		90.1	70-130			
tert-Butyl Ethyl Ether (TBEE)	11.0	0.50	µg/L	10.0		110	70-130			
Carbon Disulfide	11.8	5.0	µg/L	10.0		118	70-130			
Carbon Tetrachloride	9.85	1.0	µg/L	10.0		98.5	70-130			
Chlorobenzene	9.14	1.0	µg/L	10.0		91.4	70-130			
Chlorodibromomethane	9.23	0.50	µg/L	10.0		92.3	70-130			
Chloroethane	9.71	2.0	µg/L	10.0		97.1	70-130			
Chloroform	9.71	2.0	µg/L	10.0		97.1	70-130			
Chloromethane	8.58	2.0	µg/L	10.0		85.8	40-160			†
2-Chlorotoluene	9.65	1.0	µg/L	10.0		96.5	70-130			
4-Chlorotoluene	9.38	1.0	µg/L	10.0		93.8	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	7.96	2.0	µg/L	10.0		79.6	70-130			

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 B151579 - SW-846 5030B										
LCS (B151579-BS1)				Prepared & Analyzed: 06/16/16						
1,2-Dibromoethane (EDB)	9.40	0.50	µg/L	10.0		94.0	70-130			
Dibromomethane	9.58	1.0	µg/L	10.0		95.8	70-130			
1,2-Dichlorobenzene	9.52	1.0	µg/L	10.0		95.2	70-130			
1,3-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,4-Dichlorobenzene	9.66	1.0	µg/L	10.0		96.6	70-130			
Dichlorodifluoromethane (Freon 12)	6.17	2.0	µg/L	10.0		61.7	40-160			L-14, V-05 †
1,1-Dichloroethane	11.0	1.0	µg/L	10.0		110	70-130			
1,2-Dichloroethane	10.8	1.0	µg/L	10.0		108	70-130			
1,1-Dichloroethylene	10.4	1.0	µg/L	10.0		104	70-130			
cis-1,2-Dichloroethylene	10.1	1.0	µg/L	10.0		101	70-130			
trans-1,2-Dichloroethylene	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dichloropropane	10.6	1.0	µg/L	10.0		106	70-130			
1,3-Dichloropropane	9.39	0.50	µg/L	10.0		93.9	70-130			
2,2-Dichloropropane	9.16	1.0	µg/L	10.0		91.6	70-130			
1,1-Dichloropropene	9.58	0.50	µg/L	10.0		95.8	70-130			
cis-1,3-Dichloropropene	8.31	0.40	µg/L	10.0		83.1	70-130			
trans-1,3-Dichloropropene	9.31	0.40	µg/L	10.0		93.1	70-130			V-05
Diethyl Ether	10.3	2.0	µg/L	10.0		103	70-130			
Diisopropyl Ether (DIPE)	12.5	0.50	µg/L	10.0		125	70-130			
1,4-Dioxane	102	50	µg/L	100		102	40-160			V-16 †
Ethylbenzene	10.0	1.0	µg/L	10.0		100	70-130			
Hexachlorobutadiene	10.2	0.50	µg/L	10.0		102	70-130			
2-Hexanone (MBK)	131	10	µg/L	100		131	40-160			L-14, V-20 †
Isopropylbenzene (Cumene)	9.39	1.0	µg/L	10.0		93.9	70-130			V-05
p-Isopropyltoluene (p-Cymene)	10.0	1.0	µg/L	10.0		100	70-130			
Methyl tert-Butyl Ether (MTBE)	9.00	1.0	µg/L	10.0		90.0	70-130			
Methylene Chloride	11.7	5.0	µg/L	10.0		117	70-130			R-05
4-Methyl-2-pentanone (MIBK)	131	10	µg/L	100		131	40-160			L-14, V-20 †
Naphthalene	8.61	2.0	µg/L	10.0		86.1	70-130			V-05
n-Propylbenzene	9.41	1.0	µg/L	10.0		94.1	70-130			
Styrene	9.40	1.0	µg/L	10.0		94.0	70-130			
1,1,1,2-Tetrachloroethane	10.2	1.0	µg/L	10.0		102	70-130			
1,1,2,2-Tetrachloroethane	9.04	1.0	µg/L	10.0		90.4	70-130			
Tetrachloroethylene	10.3	1.0	µg/L	10.0		103	70-130			
Tetrahydrofuran	11.2	2.0	µg/L	10.0		112	70-130			
Toluene	9.65	1.0	µg/L	10.0		96.5	70-130			
1,2,3-Trichlorobenzene	9.68	2.0	µg/L	10.0		96.8	70-130			
1,2,4-Trichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130			
1,1,1-Trichloroethane	9.71	1.0	µg/L	10.0		97.1	70-130			
1,1,2-Trichloroethane	10.4	1.0	µg/L	10.0		104	70-130			
Trichloroethylene	9.51	1.0	µg/L	10.0		95.1	70-130			
Trichlorofluoromethane (Freon 11)	9.74	2.0	µg/L	10.0		97.4	70-130			V-05
1,2,3-Trichloropropane	9.48	2.0	µg/L	10.0		94.8	70-130			
1,2,4-Trimethylbenzene	10.2	1.0	µg/L	10.0		102	70-130			
1,3,5-Trimethylbenzene	9.78	1.0	µg/L	10.0		97.8	70-130			
Vinyl Chloride	8.09	2.0	µg/L	10.0		80.9	70-130			
m+p Xylene	19.8	2.0	µg/L	20.0		99.0	70-130			
o-Xylene	9.80	1.0	µg/L	10.0		98.0	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.6		µg/L	25.0		103	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.6		µg/L	25.0		103	70-130			
Surrogate: Toluene-d8	24.7		µg/L	25.0		98.8	70-130			
Surrogate: Toluene-d8	24.7		µg/L	25.0		98.8	70-130			

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 B151579 - SW-846 5030B										
LCS (B151579-BS1)				Prepared & Analyzed: 06/16/16						
Surrogate: 4-Bromofluorobenzene	25.0		µg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	25.0		µg/L	25.0		100	70-130			
LCS Dup (B151579-BSD1)				Prepared & Analyzed: 06/16/16						
Acetone	166	10	µg/L	100		166	* 40-160	13.9	20	L-07, V-20 †
tert-Amyl Methyl Ether (TAME)	9.01	0.50	µg/L	10.0		90.1	70-130	5.59	20	V-05
Benzene	10.0	1.0	µg/L	10.0		100	70-130	5.33	20	
Bromobenzene	10.6	1.0	µg/L	10.0		106	70-130	11.9	20	
Bromochloromethane	14.3	2.0	µg/L	10.0		143	* 70-130	13.3	20	L-07
Bromodichloromethane	10.2	1.0	µg/L	10.0		102	70-130	4.01	20	
Bromoform	11.0	1.0	µg/L	10.0		110	70-130	1.53	20	
Bromomethane	6.72	2.0	µg/L	10.0		67.2	40-160	23.1	* 20	L-14, R-05 †
2-Butanone (MEK)	136	10	µg/L	100		136	40-160	6.07	20	L-14 †
tert-Butyl Alcohol (TBA)	101	20	µg/L	100		101	40-160	7.63	25	†
n-Butylbenzene	9.95	1.0	µg/L	10.0		99.5	70-130	5.26	20	
sec-Butylbenzene	10.5	1.0	µg/L	10.0		105	70-130	8.45	20	
tert-Butylbenzene	9.57	1.0	µg/L	10.0		95.7	70-130	6.03	20	
tert-Butyl Ethyl Ether (TBEE)	11.1	0.50	µg/L	10.0		111	70-130	0.815	20	
Carbon Disulfide	11.2	5.0	µg/L	10.0		112	70-130	5.24	20	
Carbon Tetrachloride	10.0	1.0	µg/L	10.0		100	70-130	1.61	20	
Chlorobenzene	9.97	1.0	µg/L	10.0		99.7	70-130	8.69	20	
Chlorodibromomethane	10.4	0.50	µg/L	10.0		104	70-130	11.9	20	
Chloroethane	10.4	2.0	µg/L	10.0		104	70-130	7.15	20	
Chloroform	9.92	2.0	µg/L	10.0		99.2	70-130	2.14	20	
Chloromethane	9.68	2.0	µg/L	10.0		96.8	40-160	12.0	20	†
2-Chlorotoluene	10.3	1.0	µg/L	10.0		103	70-130	6.42	20	
4-Chlorotoluene	10.4	1.0	µg/L	10.0		104	70-130	10.0	20	
1,2-Dibromo-3-chloropropane (DBCP)	8.18	2.0	µg/L	10.0		81.8	70-130	2.73	20	
1,2-Dibromoethane (EDB)	10.1	0.50	µg/L	10.0		101	70-130	7.57	20	
Dibromomethane	10.3	1.0	µg/L	10.0		103	70-130	6.95	20	
1,2-Dichlorobenzene	9.21	1.0	µg/L	10.0		92.1	70-130	3.31	20	
1,3-Dichlorobenzene	10.3	1.0	µg/L	10.0		103	70-130	0.978	20	
1,4-Dichlorobenzene	10.2	1.0	µg/L	10.0		102	70-130	5.34	20	
Dichlorodifluoromethane (Freon 12)	6.39	2.0	µg/L	10.0		63.9	40-160	3.50	20	L-14, V-05 †
1,1-Dichloroethane	11.5	1.0	µg/L	10.0		115	70-130	4.09	20	
1,2-Dichloroethane	11.4	1.0	µg/L	10.0		114	70-130	5.21	20	
1,1-Dichloroethylene	11.3	1.0	µg/L	10.0		113	70-130	8.46	20	
cis-1,2-Dichloroethylene	10.3	1.0	µg/L	10.0		103	70-130	2.06	20	
trans-1,2-Dichloroethylene	10.7	1.0	µg/L	10.0		107	70-130	1.98	20	
1,2-Dichloropropane	11.0	1.0	µg/L	10.0		110	70-130	3.81	20	
1,3-Dichloropropane	9.94	0.50	µg/L	10.0		99.4	70-130	5.69	20	
2,2-Dichloropropane	10.2	1.0	µg/L	10.0		102	70-130	10.4	20	
1,1-Dichloropropene	10.2	0.50	µg/L	10.0		102	70-130	6.76	20	
cis-1,3-Dichloropropene	8.60	0.40	µg/L	10.0		86.0	70-130	3.43	20	
trans-1,3-Dichloropropene	9.07	0.40	µg/L	10.0		90.7	70-130	2.61	20	V-05
Diethyl Ether	11.0	2.0	µg/L	10.0		110	70-130	6.40	20	
Diisopropyl Ether (DIPE)	13.7	0.50	µg/L	10.0		137	* 70-130	8.86	20	L-07
1,4-Dioxane	98.2	50	µg/L	100		98.2	40-160	4.13	20	V-16 †
Ethylbenzene	10.8	1.0	µg/L	10.0		108	70-130	7.11	20	
Hexachlorobutadiene	11.4	0.50	µg/L	10.0		114	70-130	11.2	20	
2-Hexanone (MBK)	140	10	µg/L	100		140	40-160	6.51	20	V-20, L-14 †
Isopropylbenzene (Cumene)	9.94	1.0	µg/L	10.0		99.4	70-130	5.69	20	V-05

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 B151579 - SW-846 5030B										
LCS Dup (B151579-BSD1)				Prepared & Analyzed: 06/16/16						
p-Isopropyltoluene (p-Cymene)	10.2	1.0	µg/L	10.0		102	70-130	1.88	20	
Methyl tert-Butyl Ether (MTBE)	9.31	1.0	µg/L	10.0		93.1	70-130	3.39	20	
Methylene Chloride	14.8	5.0	µg/L	10.0		148	* 70-130	23.3	* 20	L-07A, R-05
4-Methyl-2-pentanone (MIBK)	137	10	µg/L	100		137	40-160	4.71	20	L-14, V-20 †
Naphthalene	8.87	2.0	µg/L	10.0		88.7	70-130	2.97	20	V-05
n-Propylbenzene	10.3	1.0	µg/L	10.0		103	70-130	9.03	20	
Styrene	10.2	1.0	µg/L	10.0		102	70-130	7.77	20	
1,1,1,2-Tetrachloroethane	10.6	1.0	µg/L	10.0		106	70-130	4.12	20	
1,1,2,2-Tetrachloroethane	9.73	1.0	µg/L	10.0		97.3	70-130	7.35	20	
Tetrachloroethylene	11.5	1.0	µg/L	10.0		115	70-130	10.6	20	
Tetrahydrofuran	11.5	2.0	µg/L	10.0		115	70-130	2.55	20	
Toluene	10.1	1.0	µg/L	10.0		101	70-130	4.75	20	
1,2,3-Trichlorobenzene	10.5	2.0	µg/L	10.0		105	70-130	8.41	20	
1,2,4-Trichlorobenzene	10.1	1.0	µg/L	10.0		101	70-130	0.893	20	
1,1,1-Trichloroethane	9.60	1.0	µg/L	10.0		96.0	70-130	1.14	20	
1,1,2-Trichloroethane	9.64	1.0	µg/L	10.0		96.4	70-130	7.39	20	
Trichloroethylene	10.0	1.0	µg/L	10.0		100	70-130	5.12	20	
Trichlorofluoromethane (Freon 11)	10.5	2.0	µg/L	10.0		105	70-130	7.60	20	V-05
1,2,3-Trichloropropane	10.1	2.0	µg/L	10.0		101	70-130	6.43	20	
1,2,4-Trimethylbenzene	10.6	1.0	µg/L	10.0		106	70-130	3.83	20	
1,3,5-Trimethylbenzene	10.4	1.0	µg/L	10.0		104	70-130	6.14	20	
Vinyl Chloride	8.30	2.0	µg/L	10.0		83.0	70-130	2.56	20	
m+p Xylene	20.3	2.0	µg/L	20.0		102	70-130	2.54	20	
o-Xylene	10.2	1.0	µg/L	10.0		102	70-130	3.61	20	
Surrogate: 1,2-Dichloroethane-d4	24.1		µg/L	25.0		96.3	70-130			
Surrogate: 1,2-Dichloroethane-d4	24.1		µg/L	25.0		96.3	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.2	70-130			
Surrogate: Toluene-d8	24.8		µg/L	25.0		99.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.0		µg/L	25.0		96.0	70-130			
Surrogate: 4-Bromofluorobenzene	24.0		µg/L	25.0		96.0	70-130			

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
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Batch B151465 - SW-846 3510C
Blank (B151465-BLK1)

Prepared: 06/15/16 Analyzed: 06/16/16

Acenaphthene (low)	ND	0.30	µg/L							
Acenaphthylene (low)	ND	0.30	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene (low)	ND	0.20	µg/L							
Benzo(a)anthracene (low)	ND	0.050	µg/L							
Benzo(a)pyrene (low)	ND	0.10	µg/L							
Benzo(b)fluoranthene (low)	ND	0.050	µg/L							
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L							
Benzo(k)fluoranthene (low)	ND	0.20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							R-05
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
Chrysene (low)	ND	0.20	µg/L							
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L							
Fluoranthene (low)	ND	0.50	µg/L							
Fluorene (low)	ND	1.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							
Hexachlorobutadiene	ND	10	µg/L							
Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L							
Isophorone	ND	10	µg/L							
2-Methylnaphthalene (low)	ND	1.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene (low)	ND	1.0	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							
Phenanthrene (low)	ND	0.050	µg/L							

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
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Batch B151465 - SW-846 3510C
Blank (B151465-BLK1)

Prepared & Analyzed: 06/15/16

Phenol	ND	10	µg/L							
Pyrene (low)	ND	1.0	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							
Surrogate: 2-Fluorophenol	118		µg/L	200		58.8	15-110			
Surrogate: Phenol-d6	83.6		µg/L	200		41.8	15-110			
Surrogate: Nitrobenzene-d5	93.3		µg/L	100		93.3	30-130			
Surrogate: Nitrobenzene-d5 (low)	69.4		µg/L	100		69.4	30-130			
Surrogate: 2-Fluorobiphenyl	95.4		µg/L	100		95.4	30-130			
Surrogate: 2-Fluorobiphenyl (low)	68.6		µg/L	100		68.6	30-130			
Surrogate: 2,4,6-Tribromophenol	183		µg/L	200		91.5	15-110			
Surrogate: p-Terphenyl-d14	115		µg/L	100		115	30-130			
Surrogate: p-Terphenyl-d14 (low)	56.8		µg/L	100		56.8	30-130			

LCS (B151465-BS1)

Prepared & Analyzed: 06/15/16

Acenaphthene	45.6	5.0	µg/L	50.0		91.2	40-140			
Acenaphthene (low)	45.3	7.5	µg/L	50.0		90.6	40-140			
Acenaphthylene	45.9	5.0	µg/L	50.0		91.7	40-140			
Acenaphthylene (low)	47.8	7.5	µg/L	50.0		95.6	40-140			
Acetophenone	44.9	10	µg/L	50.0		89.7	40-140			
Aniline	44.1	5.0	µg/L	50.0		88.1	40-140			
Anthracene	47.9	5.0	µg/L	50.0		95.8	40-140			
Anthracene (low)	48.9	5.0	µg/L	50.0		97.8	40-140			
Benzo(a)anthracene	49.4	5.0	µg/L	50.0		98.7	40-140			
Benzo(a)anthracene (low)	48.8	1.2	µg/L	50.0		97.6	40-140			
Benzo(a)pyrene	50.4	5.0	µg/L	50.0		101	40-140			
Benzo(a)pyrene (low)	55.0	2.5	µg/L	50.0		110	40-140			
Benzo(b)fluoranthene	48.7	5.0	µg/L	50.0		97.5	40-140			
Benzo(b)fluoranthene (low)	56.0	1.2	µg/L	50.0		112	40-140			
Benzo(g,h,i)perylene	49.0	5.0	µg/L	50.0		97.9	40-140			
Benzo(g,h,i)perylene (low)	51.3	12	µg/L	50.0		103	40-140			
Benzo(k)fluoranthene	49.2	5.0	µg/L	50.0		98.4	40-140			
Benzo(k)fluoranthene (low)	51.8	5.0	µg/L	50.0		104	40-140			
Bis(2-chloroethoxy)methane	49.4	10	µg/L	50.0		98.8	40-140			
Bis(2-chloroethyl)ether	47.8	10	µg/L	50.0		95.5	40-140			
Bis(2-chloroisopropyl)ether	46.3	10	µg/L	50.0		92.6	40-140			
Bis(2-Ethylhexyl)phthalate	67.5	10	µg/L	50.0		135	40-140			
4-Bromophenylphenylether	49.0	10	µg/L	50.0		97.9	40-140			
Butylbenzylphthalate	55.5	10	µg/L	50.0		111	40-140			
4-Chloroaniline	48.9	10	µg/L	50.0		97.8	15-140			†
2-Chloronaphthalene	41.8	10	µg/L	50.0		83.5	40-140			
2-Chlorophenol	41.6	10	µg/L	50.0		83.1	30-130			
Chrysene	46.4	5.0	µg/L	50.0		92.7	40-140			
Chrysene (low)	45.3	5.0	µg/L	50.0		90.6	40-140			
Dibenz(a,h)anthracene	49.0	5.0	µg/L	50.0		98.1	40-140			
Dibenz(a,h)anthracene (low)	53.2	5.0	µg/L	50.0		106	40-140			
Dibenzofuran	50.7	5.0	µg/L	50.0		101	40-140			
Di-n-butylphthalate	51.9	10	µg/L	50.0		104	40-140			
1,2-Dichlorobenzene	42.1	5.0	µg/L	50.0		84.2	40-140			
1,3-Dichlorobenzene	39.9	5.0	µg/L	50.0		79.8	40-140			
1,4-Dichlorobenzene	41.3	5.0	µg/L	50.0		82.6	40-140			

R-05

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 B151465 - SW-846 3510C										
LCS (B151465-BS1)				Prepared & Analyzed: 06/15/16						
3,3-Dichlorobenzidine	44.7	10	µg/L	50.0		89.4	40-140			
2,4-Dichlorophenol	44.8	10	µg/L	50.0		89.6	30-130			
Diethylphthalate	53.1	10	µg/L	50.0		106	40-140			
2,4-Dimethylphenol	42.4	10	µg/L	50.0		84.7	30-130			
Dimethylphthalate	51.7	10	µg/L	50.0		103	40-140			
2,4-Dinitrophenol	44.5	10	µg/L	50.0		89.0	15-140			†
2,4-Dinitrotoluene	53.6	10	µg/L	50.0		107	40-140			
2,6-Dinitrotoluene	52.9	10	µg/L	50.0		106	40-140			
Di-n-octylphthalate	54.9	10	µg/L	50.0		110	40-140			
1,2-Diphenylhydrazine (as Azobenzene)	48.9	10	µg/L	50.0		97.8	40-140			
Fluoranthene	50.0	5.0	µg/L	50.0		100	40-140			
Fluoranthene (low)	52.4	12	µg/L	50.0		105	40-140			
Fluorene	47.9	5.0	µg/L	50.0		95.8	40-140			
Fluorene (low)	46.4	25	µg/L	50.0		92.7	40-140			
Hexachlorobenzene	44.3	10	µg/L	50.0		88.6	40-140			
Hexachlorobutadiene	42.9	10	µg/L	50.0		85.9	40-140			
Hexachloroethane	42.8	10	µg/L	50.0		85.6	40-140			
Indeno(1,2,3-cd)pyrene	49.7	5.0	µg/L	50.0		99.4	40-140			
Indeno(1,2,3-cd)pyrene (low)	51.9	5.0	µg/L	50.0		104	40-140			
Isophorone	50.2	10	µg/L	50.0		100	40-140			
2-Methylnaphthalene	46.2	5.0	µg/L	50.0		92.4	40-140			
2-Methylnaphthalene (low)	44.4	25	µg/L	50.0		88.7	40-140			
2-Methylphenol	42.2	10	µg/L	50.0		84.4	30-130			
3/4-Methylphenol	40.3	10	µg/L	50.0		80.6	30-130			
Naphthalene	41.9	5.0	µg/L	50.0		83.9	40-140			
Naphthalene (low)	38.0	25	µg/L	50.0		75.9	40-140			
Nitrobenzene	45.6	10	µg/L	50.0		91.2	40-140			
2-Nitrophenol	43.2	10	µg/L	50.0		86.5	30-130			
4-Nitrophenol	33.7	10	µg/L	50.0		67.3	15-140			†
Pentachlorophenol	35.7	10	µg/L	50.0		71.4	30-130			
Phenanthrene	47.5	5.0	µg/L	50.0		95.0	40-140			
Phenanthrene (low)	45.5	1.2	µg/L	50.0		91.0	40-140			
Phenol	24.3	10	µg/L	50.0		48.6	15-140			†
Pyrene	49.1	5.0	µg/L	50.0		98.1	40-140			
Pyrene (low)	47.3	25	µg/L	50.0		94.6	40-140			
1,2,4-Trichlorobenzene	42.7	5.0	µg/L	50.0		85.4	40-140			
2,4,5-Trichlorophenol	46.4	10	µg/L	50.0		92.8	30-130			
2,4,6-Trichlorophenol	46.2	10	µg/L	50.0		92.4	30-130			
Surrogate: 2-Fluorophenol	129		µg/L	200		64.5	15-110			
Surrogate: Phenol-d6	93.6		µg/L	200		46.8	15-110			
Surrogate: Nitrobenzene-d5	96.8		µg/L	100		96.8	30-130			
Surrogate: Nitrobenzene-d5 (low)	78.4		µg/L	100		78.4	30-130			
Surrogate: 2-Fluorobiphenyl	97.7		µg/L	100		97.7	30-130			
Surrogate: 2-Fluorobiphenyl (low)	91.0		µg/L	100		91.0	30-130			
Surrogate: 2,4,6-Tribromophenol	203		µg/L	200		102	15-110			
Surrogate: p-Terphenyl-d14	111		µg/L	100		111	30-130			
Surrogate: p-Terphenyl-d14 (low)	67.7		µg/L	100		67.7	30-130			

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 B151465 - SW-846 3510C										
LCS Dup (B151465-BSD1)				Prepared & Analyzed: 06/15/16						
Acenaphthene	43.7	5.0	µg/L	50.0		87.4	40-140	4.34	20	
Acenaphthene (low)	47.7	7.5	µg/L	50.0		95.4	40-140	5.16	20	
Acenaphthylene	44.2	5.0	µg/L	50.0		88.4	40-140	3.73	20	
Acenaphthylene (low)	50.5	7.5	µg/L	50.0		101	40-140	5.49	20	
Acetophenone	40.8	10	µg/L	50.0		81.7	40-140	9.38	20	
Aniline	41.5	5.0	µg/L	50.0		83.0	40-140	5.96	20	
Anthracene	46.4	5.0	µg/L	50.0		92.9	40-140	3.14	20	
Anthracene (low)	49.8	5.0	µg/L	50.0		99.6	40-140	1.87	20	
Benzo(a)anthracene	47.7	5.0	µg/L	50.0		95.5	40-140	3.32	20	
Benzo(a)anthracene (low)	49.5	1.2	µg/L	50.0		99.0	40-140	1.42	20	
Benzo(a)pyrene	48.6	5.0	µg/L	50.0		97.1	40-140	3.70	20	
Benzo(a)pyrene (low)	56.4	2.5	µg/L	50.0		113	40-140	2.42	20	
Benzo(b)fluoranthene	46.1	5.0	µg/L	50.0		92.3	40-140	5.50	20	
Benzo(b)fluoranthene (low)	57.7	1.2	µg/L	50.0		115	40-140	3.12	20	
Benzo(g,h,i)perylene	46.9	5.0	µg/L	50.0		93.9	40-140	4.23	20	
Benzo(g,h,i)perylene (low)	52.2	12	µg/L	50.0		104	40-140	1.64	20	
Benzo(k)fluoranthene	45.9	5.0	µg/L	50.0		91.8	40-140	7.00	20	
Benzo(k)fluoranthene (low)	53.0	5.0	µg/L	50.0		106	40-140	2.29	20	
Bis(2-chloroethoxy)methane	47.0	10	µg/L	50.0		93.9	40-140	5.04	20	
Bis(2-chloroethyl)ether	43.8	10	µg/L	50.0		87.7	40-140	8.54	20	
Bis(2-chloroisopropyl)ether	42.4	10	µg/L	50.0		84.8	40-140	8.77	20	
Bis(2-Ethylhexyl)phthalate	52.6	10	µg/L	50.0		105	40-140	24.8	*	20 R-05
4-Bromophenylphenylether	48.7	10	µg/L	50.0		97.3	40-140	0.594	20	
Butylbenzylphthalate	52.1	10	µg/L	50.0		104	40-140	6.30	20	
4-Chloroaniline	45.4	10	µg/L	50.0		90.8	15-140	7.45	20	†
2-Chloronaphthalene	40.7	10	µg/L	50.0		81.5	40-140	2.50	20	
2-Chlorophenol	38.4	10	µg/L	50.0		76.8	30-130	7.85	20	
Chrysene	43.6	5.0	µg/L	50.0		87.2	40-140	6.16	20	
Chrysene (low)	46.2	5.0	µg/L	50.0		92.3	40-140	1.86	20	
Dibenz(a,h)anthracene	47.8	5.0	µg/L	50.0		95.7	40-140	2.46	20	
Dibenz(a,h)anthracene (low)	54.4	5.0	µg/L	50.0		109	40-140	2.32	20	
Dibenzofuran	48.0	5.0	µg/L	50.0		95.9	40-140	5.63	20	
Di-n-butylphthalate	49.3	10	µg/L	50.0		98.5	40-140	5.22	20	
1,2-Dichlorobenzene	38.9	5.0	µg/L	50.0		77.9	40-140	7.82	20	
1,3-Dichlorobenzene	37.5	5.0	µg/L	50.0		75.0	40-140	6.23	20	
1,4-Dichlorobenzene	38.2	5.0	µg/L	50.0		76.4	40-140	7.80	20	
3,3-Dichlorobenzidine	40.1	10	µg/L	50.0		80.2	40-140	10.9	20	
2,4-Dichlorophenol	42.4	10	µg/L	50.0		84.9	30-130	5.43	20	
Diethylphthalate	49.3	10	µg/L	50.0		98.5	40-140	7.45	20	
2,4-Dimethylphenol	38.6	10	µg/L	50.0		77.2	30-130	9.21	20	
Dimethylphthalate	48.0	10	µg/L	50.0		96.0	40-140	7.32	20	
2,4-Dinitrophenol	42.6	10	µg/L	50.0		85.3	15-140	4.31	20	†
2,4-Dinitrotoluene	48.9	10	µg/L	50.0		97.9	40-140	9.07	20	
2,6-Dinitrotoluene	49.2	10	µg/L	50.0		98.4	40-140	7.23	20	
Di-n-octylphthalate	51.2	10	µg/L	50.0		102	40-140	6.95	20	
1,2-Diphenylhydrazine (as Azobenzene)	48.8	10	µg/L	50.0		97.7	40-140	0.0614	20	
Fluoranthene	46.6	5.0	µg/L	50.0		93.1	40-140	7.17	20	
Fluoranthene (low)	55.2	12	µg/L	50.0		110	40-140	5.11	20	
Fluorene	45.7	5.0	µg/L	50.0		91.3	40-140	4.79	20	
Fluorene (low)	49.4	25	µg/L	50.0		98.8	40-140	6.42	20	
Hexachlorobenzene	44.6	10	µg/L	50.0		89.2	40-140	0.653	20	
Hexachlorobutadiene	41.4	10	µg/L	50.0		82.8	40-140	3.70	20	

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 B151465 - SW-846 3510C										
LCS Dup (B151465-BSD1)				Prepared & Analyzed: 06/15/16						
Hexachloroethane	39.3	10	µg/L	50.0		78.5	40-140	8.65	20	
Indeno(1,2,3-cd)pyrene	47.7	5.0	µg/L	50.0		95.4	40-140	4.09	20	
Indeno(1,2,3-cd)pyrene (low)	52.8	5.0	µg/L	50.0		106	40-140	1.77	20	
Isophorone	47.5	10	µg/L	50.0		95.0	40-140	5.43	20	
2-Methylnaphthalene	44.6	5.0	µg/L	50.0		89.2	40-140	3.59	20	
2-Methylnaphthalene (low)	48.0	25	µg/L	50.0		96.1	40-140	8.01	20	
2-Methylphenol	37.9	10	µg/L	50.0		75.7	30-130	10.8	20	
3/4-Methylphenol	35.6	10	µg/L	50.0		71.2	30-130	12.4	20	
Naphthalene	41.5	5.0	µg/L	50.0		83.0	40-140	1.03	20	
Naphthalene (low)	41.6	25	µg/L	50.0		83.2	40-140	9.24	20	
Nitrobenzene	44.0	10	µg/L	50.0		88.0	40-140	3.62	20	
2-Nitrophenol	42.8	10	µg/L	50.0		85.5	30-130	1.12	20	
4-Nitrophenol	29.8	10	µg/L	50.0		59.5	15-140	12.3	20	†
Pentachlorophenol	34.4	10	µg/L	50.0		68.8	30-130	3.74	20	
Phenanthrene	45.8	5.0	µg/L	50.0		91.6	40-140	3.67	20	
Phenanthrene (low)	46.7	1.2	µg/L	50.0		93.4	40-140	2.66	20	
Phenol	22.0	10	µg/L	50.0		44.1	15-140	9.80	20	†
Pyrene	47.0	5.0	µg/L	50.0		94.0	40-140	4.25	20	
Pyrene (low)	48.8	25	µg/L	50.0		97.5	40-140	3.02	20	
1,2,4-Trichlorobenzene	41.0	5.0	µg/L	50.0		82.0	40-140	4.04	20	
2,4,5-Trichlorophenol	44.2	10	µg/L	50.0		88.4	30-130	4.79	20	
2,4,6-Trichlorophenol	43.8	10	µg/L	50.0		87.6	30-130	5.36	20	
Surrogate: 2-Fluorophenol	116		µg/L	200		57.9	15-110			
Surrogate: Phenol-d6	82.2		µg/L	200		41.1	15-110			
Surrogate: Nitrobenzene-d5	92.5		µg/L	100		92.5	30-130			
Surrogate: Nitrobenzene-d5 (low)	87.1		µg/L	100		87.1	30-130			
Surrogate: 2-Fluorobiphenyl	94.8		µg/L	100		94.8	30-130			
Surrogate: 2-Fluorobiphenyl (low)	96.8		µg/L	100		96.8	30-130			
Surrogate: 2,4,6-Tribromophenol	189		µg/L	200		94.7	15-110			
Surrogate: p-Terphenyl-d14	105		µg/L	100		105	30-130			
Surrogate: p-Terphenyl-d14 (low)	69.9		µg/L	100		69.9	30-130			

QUALITY CONTROL
Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B151540 - SW-846 3510C
Blank (B151540-BLK1)

Prepared & Analyzed: 06/16/16

Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 [2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 [2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 [2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 [2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 [2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 [2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 [2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 [2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 [2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	1.53		µg/L	2.00		76.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.41		µg/L	2.00		70.5	30-150			
Surrogate: Tetrachloro-m-xylene	1.61		µg/L	2.00		80.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.48		µg/L	2.00		73.8	30-150			

LCS (B151540-BS1)

Prepared & Analyzed: 06/16/16

Aroclor-1016	0.46	0.20	µg/L	0.500		91.7	40-140			
Aroclor-1016 [2C]	0.43	0.20	µg/L	0.500		85.2	40-140			
Aroclor-1260	0.45	0.20	µg/L	0.500		89.5	40-140			
Aroclor-1260 [2C]	0.41	0.20	µg/L	0.500		81.2	40-140			
Surrogate: Decachlorobiphenyl	1.78		µg/L	2.00		89.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.64		µg/L	2.00		82.0	30-150			
Surrogate: Tetrachloro-m-xylene	1.68		µg/L	2.00		84.1	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.53		µg/L	2.00		76.6	30-150			

LCS Dup (B151540-BSD1)

Prepared & Analyzed: 06/16/16

Aroclor-1016	0.45	0.20	µg/L	0.500		89.1	40-140	2.78	20	
Aroclor-1016 [2C]	0.42	0.20	µg/L	0.500		84.2	40-140	1.22	20	
Aroclor-1260	0.44	0.20	µg/L	0.500		87.1	40-140	2.68	20	
Aroclor-1260 [2C]	0.40	0.20	µg/L	0.500		79.4	40-140	2.27	20	
Surrogate: Decachlorobiphenyl	1.56		µg/L	2.00		78.0	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.46		µg/L	2.00		73.1	30-150			
Surrogate: Tetrachloro-m-xylene	1.60		µg/L	2.00		79.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.48		µg/L	2.00		73.8	30-150			

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B151524 - SW-846 3005A

Blank (B151524-BLK1)

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	ND	1.0	µg/L							
Arsenic	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							
Zinc	ND	10	µg/L							

LCS (B151524-BS1)

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	536	10	µg/L	500		107	80-120			
Arsenic	531	4.0	µg/L	500		106	80-120			
Cadmium	528	5.0	µg/L	500		106	80-120			
Chromium	529	10	µg/L	500		106	80-120			
Copper	522	50	µg/L	500		104	80-120			
Lead	553	10	µg/L	500		111	80-120			
Nickel	519	50	µg/L	500		104	80-120			
Selenium	561	50	µg/L	500		112	80-120			
Silver	510	5.0	µg/L	500		102	80-120			
Zinc	568	100	µg/L	500		114	80-120			

LCS Dup (B151524-BSD1)

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	562	10	µg/L	500		112	80-120	4.61	20	
Arsenic	551	4.0	µg/L	500		110	80-120	3.64	20	
Cadmium	546	5.0	µg/L	500		109	80-120	3.37	20	
Chromium	537	10	µg/L	500		107	80-120	1.63	20	
Copper	537	50	µg/L	500		107	80-120	2.85	20	
Lead	572	10	µg/L	500		114	80-120	3.50	20	
Nickel	533	50	µg/L	500		107	80-120	2.63	20	
Selenium	573	50	µg/L	500		115	80-120	2.11	20	
Silver	532	5.0	µg/L	500		106	80-120	4.08	20	
Zinc	578	100	µg/L	500		116	80-120	1.83	20	

Duplicate (B151524-DUP1)

Source: 16F0797-01

Prepared: 06/15/16 Analyzed: 06/16/16

Antimony	ND	1.0	µg/L		ND		NC	20		
Arsenic	ND	0.40	µg/L		ND		NC	20		
Cadmium	ND	0.50	µg/L		ND		NC	20		
Chromium	1.74	1.0	µg/L		1.75		0.579	20		
Copper	7.23	5.0	µg/L		6.95		3.93	20		
Lead	ND	1.0	µg/L		ND		NC	20		
Nickel	5.13	5.0	µg/L		5.04		1.78	20		
Selenium	ND	5.0	µg/L		ND		NC	20		
Silver	ND	0.50	µg/L		ND		NC	20		
Zinc	275	10	µg/L		331		18.5	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
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Batch B151524 - SW-846 3005A

Matrix Spike (B151524-MS1)		Source: 16F0797-01		Prepared: 06/15/16 Analyzed: 06/16/16						
Antimony	566	10	µg/L	500	ND	113	75-125			
Arsenic	549	4.0	µg/L	500	ND	110	75-125			
Cadmium	523	5.0	µg/L	500	0.0899	105	75-125			
Chromium	544	10	µg/L	500	1.75	109	75-125			
Copper	524	50	µg/L	500	6.95	103	75-125			
Lead	579	10	µg/L	500	ND	116	75-125			
Nickel	531	50	µg/L	500	5.04	105	75-125			
Selenium	559	50	µg/L	500	1.78	112	75-125			
Silver	498	5.0	µg/L	500	ND	99.5	75-125			
Zinc	894	100	µg/L	500	331	112	75-125			

Batch B151525 - SW-846 3005A

Blank (B151525-BLK1)		Prepared: 06/15/16 Analyzed: 06/16/16								
Iron	ND	0.050	mg/L							
LCS (B151525-BS1)		Prepared: 06/15/16 Analyzed: 06/16/16								
Iron	0.529	0.050	mg/L	0.500		106	80-120			
LCS Dup (B151525-BSD1)		Prepared: 06/15/16 Analyzed: 06/16/16								
Iron	0.520	0.050	mg/L	0.500		104	80-120	1.69	20	
Duplicate (B151525-DUP1)		Source: 16F0797-01		Prepared: 06/15/16 Analyzed: 06/16/16						
Iron	ND	0.050	mg/L		ND			NC	20	
Matrix Spike (B151525-MS1)		Source: 16F0797-01		Prepared: 06/15/16 Analyzed: 06/16/16						
Iron	0.539	0.050	mg/L	0.500	0.0222	103	75-125			

Batch B151621 - SW-846 3005A

Blank (B151621-BLK1)		Prepared: 06/16/16 Analyzed: 06/17/16								
Hardness	ND	3.0	mg/L							

Batch B151999 - SW-846 7470A Prep

Blank (B151999-BLK1)		Prepared & Analyzed: 06/22/16								
Mercury	ND	0.00010	mg/L							
LCS (B151999-BS1)		Prepared & Analyzed: 06/22/16								
Mercury	0.00206	0.00010	mg/L	0.00200		103	80-120			



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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
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Batch B151999 - SW-846 7470A Prep

LCS Dup (B151999-BSD1)

Prepared & Analyzed: 06/22/16

Mercury	0.00212	0.00010	mg/L	0.00200		106	80-120	3.13	20	
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Duplicate (B151999-DUP1)

Source: 16F0797-01

Prepared & Analyzed: 06/22/16

Mercury	ND	0.00010	mg/L		ND			NC	20	
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Matrix Spike (B151999-MS1)

Source: 16F0797-01

Prepared & Analyzed: 06/22/16

Mercury	0.00193	0.00010	mg/L	0.00200	ND	96.7	75-125			
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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151531 - SM21-22 4500 CL G										
Blank (B151531-BLK1)				Prepared & Analyzed: 06/15/16						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B151531-BS1)				Prepared & Analyzed: 06/15/16						
Chlorine, Residual	1.3	0.020	mg/L	1.20		110	88.1-128			
LCS Dup (B151531-BSD1)				Prepared & Analyzed: 06/15/16						
Chlorine, Residual	1.3	0.020	mg/L	1.20		110	88.1-128	0.00	5	
Duplicate (B151531-DUP1)		Source: 16F0797-02		Prepared & Analyzed: 06/15/16						
Chlorine, Residual	ND	0.020	mg/L		ND			NC	47.3	
Matrix Spike (B151531-MS1)		Source: 16F0797-02		Prepared & Analyzed: 06/15/16						
Chlorine, Residual	1.1	0.020	mg/L	1.00	ND	105	10-170			
Batch B151532 - SW-846 7196A										
Blank (B151532-BLK1)				Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B151532-BS1)				Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	0.097	0.0040	mg/L	0.100		97.1	80-120			
LCS Dup (B151532-BSD1)				Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	0.098	0.0040	mg/L	0.100		98.3	80-120	1.25	20	
Duplicate (B151532-DUP1)		Source: 16F0797-01		Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	ND	0.0040	mg/L		ND			NC	20	
Matrix Spike (B151532-MS1)		Source: 16F0797-01		Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	0.097	0.0040	mg/L	0.100	ND	97.1	75-125			
Matrix Spike Dup (B151532-MSD1)		Source: 16F0797-01		Prepared & Analyzed: 06/15/16						
Hexavalent Chromium	0.10	0.0040	mg/L	0.100	ND	101	75-125	3.69	20	
Batch B151562 - SM21-22 2540D										
Blank (B151562-BLK1)				Prepared & Analyzed: 06/16/16						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B151562-BS1)				Prepared & Analyzed: 06/16/16						
Total Suspended Solids	192	10	mg/L	200		96.0	70.1-116			



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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151601 - SW-846 9014										
Blank (B151601-BLK1)				Prepared & Analyzed: 06/16/16						
Cyanide	ND	0.010	mg/L							
LCS (B151601-BS1)				Prepared & Analyzed: 06/16/16						
Cyanide	0.67	0.010	mg/L	0.736		91.5	80-120			
LCS Dup (B151601-BSD1)				Prepared & Analyzed: 06/16/16						
Cyanide	0.69	0.010	mg/L	0.736		93.1	80-120	1.68	20	
Matrix Spike (B151601-MS1)		Source: 16F0797-02		Prepared & Analyzed: 06/16/16						
Cyanide	0.34	0.010	mg/L	0.346	ND	97.7	75-125			
Matrix Spike Dup (B151601-MSD1)		Source: 16F0797-02		Prepared & Analyzed: 06/16/16						
Cyanide	0.35	0.010	mg/L	0.346	ND	102	75-125	4.14	20	
Batch B151610 - EPA 420.1										
Blank (B151610-BLK1)				Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	ND	0.050	mg/L							
LCS (B151610-BS1)				Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	0.48	0.050	mg/L	0.500		96.4	78.8-123			
LCS Dup (B151610-BSD1)				Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	0.49	0.050	mg/L	0.500		98.0	78.8-123	1.66	11.3	
Duplicate (B151610-DUP1)		Source: 16F0797-01		Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	ND	0.050	mg/L		ND			NC	35.7	
Matrix Spike (B151610-MS1)		Source: 16F0797-01		Prepared: 06/16/16 Analyzed: 06/17/16						
Phenol	0.50	0.050	mg/L	0.500	ND	99.6	45.1-136			
Batch B151640 - SM21-22 4500 CL B										
Blank (B151640-BLK1)				Prepared & Analyzed: 06/16/16						
Chloride	ND	1.0	mg/L							
LCS (B151640-BS1)				Prepared & Analyzed: 06/16/16						
Chloride	10	1.0	mg/L	10.6		97.3	87.5-112			
LCS Dup (B151640-BSD1)				Prepared & Analyzed: 06/16/16						
Chloride	10	1.0	mg/L	10.6		97.3	87.5-112	0.00	8.07	



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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B151676 - EPA 1664B										
Blank (B151676-BLK1)				Prepared & Analyzed: 06/16/16						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B151676-BS1)				Prepared & Analyzed: 06/16/16						
Silica Gel Treated HEM (SGT-HEM)	9.8		mg/L	10.0		98.0	64-132			
Duplicate (B151676-DUP1)				Source: 16F0797-01		Prepared & Analyzed: 06/16/16				
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L		ND			NC	18	
Matrix Spike (B151676-MS1)				Source: 16F0797-02		Prepared & Analyzed: 06/16/16				
Silica Gel Treated HEM (SGT-HEM)	98	14	mg/L	100	ND	98.0	64-132			
Batch B151678 - SM21-22 2510B										
Blank (B151678-BLK1)				Prepared & Analyzed: 06/17/16						
Specific conductance	ND	2.0	µmhos/cm							
LCS (B151678-BS1)				Prepared & Analyzed: 06/17/16						
Specific conductance	230		µmhos/cm	234		96.7	90.6-110			
Duplicate (B151678-DUP1)				Source: 16F0797-01		Prepared & Analyzed: 06/17/16				
Specific conductance	1900	2.0	µmhos/cm		1900			0.116	14.4	
Batch B151705 - SM19-22 4500 NH3 C										
Blank (B151705-BLK1)				Prepared & Analyzed: 06/17/16						
Ammonia as N	ND	0.30	mg/L							
LCS (B151705-BS1)				Prepared & Analyzed: 06/17/16						
Ammonia as N	5.0	0.30	mg/L	5.00		100	82.1-110			
LCS Dup (B151705-BSD1)				Prepared & Analyzed: 06/17/16						
Ammonia as N	5.0	0.30	mg/L	5.00		100	82.1-110	0.00	7.33	
Batch B151707 - SM21-22 2540B										
Blank (B151707-BLK1)				Prepared & Analyzed: 06/17/16						
Total Solids	ND	5.0	mg/L							
LCS (B151707-BS1)				Prepared & Analyzed: 06/17/16						
Total Solids	184	5.0	mg/L	200		92.0	65.3-127			



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QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B151707 - SM21-22 2540B

Duplicate (B151707-DUP1)

Source: 16F0797-01

Prepared & Analyzed: 06/17/16

Total Solids	1300	10	mg/L		1200			11.1	*	5	R-02
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Batch B151831 - SM21-22 2320B

Blank (B151831-BLK1)

Prepared & Analyzed: 06/20/16

Alkalinity	ND	1.0	mg/L								
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LCS (B151831-BS1)

Prepared & Analyzed: 06/20/16

Alkalinity	28		mg/L	27.8		100	85.7-110				
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LCS Dup (B151831-BSD1)

Prepared & Analyzed: 06/20/16

Alkalinity	28		mg/L	27.8		100	85.7-110	0.00		6.6	
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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B151663 - SM21-22 2540C

Blank (B151663-BLK1)

Prepared & Analyzed: 06/17/16

Total Dissolved Solids	ND	10	mg/L
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LCS (B151663-BS1)

Prepared & Analyzed: 06/17/16

Total Dissolved Solids	270	10	mg/L	293	91.1	58.2-116
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**IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES***SW-846 8082A*

LCS

Lab Sample ID: B151540-BS1Date(s) Analyzed: 06/16/2016 06/16/2016

Instrument ID (1):

Instrument ID (2):

GC Column (1): ID: (mm)

GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.46	
	2	0.00	0.00	0.00	0.43	6
Aroclor-1260	1	0.00	0.00	0.00	0.45	
	2	0.00	0.00	0.00	0.41	9

**IDENTIFICATION SUMMARY
FOR SINGLE COMPONENT ANALYTES***SW-846 8082A***LCS Dup**Lab Sample ID: B151540-BSD1 Date(s) Analyzed: 06/16/2016 06/16/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.45	
	2	0.00	0.00	0.00	0.42	6
Aroclor-1260	1	0.00	0.00	0.00	0.44	
	2	0.00	0.00	0.00	0.40	9

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
DL	Method Detection Limit
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.
L-07A	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for this compound.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.
R-05	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this compound.
RL-07	Elevated reporting limit based on lowest point in calibration. MA CAM reporting limit not met.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
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.

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 420.1 in Water</i>	
Phenol	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM19-22 4500 NH3 C in Water</i>	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
<i>SM21-22 2320B in Water</i>	
Alkalinity	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2340B in Water</i>	
Hardness	CT,MA,NH,NY
<i>SM21-22 2510B in Water</i>	
Specific conductance	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2540B in Water</i>	
Total Solids	NY,CT,RI,NH,NC,ME,VA
<i>SM21-22 2540C in Water</i>	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2540D in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 4500 CL B in Water</i>	
Chloride	NH,CT,MA,NY,RI,NC,ME,VA
<i>SM21-22 4500 CL G in Water</i>	
Chlorine, Residual	CT,MA,RI,ME
<i>SW-846 6010C-D in Water</i>	
Iron	CT,NH,NY,ME,VA,NC
<i>SW-846 6020A-B in Water</i>	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	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
Zinc	CT,NH,NY,ME,VA,NC
<i>SW-846 7196A in Water</i>	
Hexavalent Chromium	CT,NH,NY,NC,ME,VA
<i>SW-846 7470A in Water</i>	
Mercury	CT,NH,NY,NC,ME,VA
<i>SW-846 8082A in Water</i>	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8082A in Water</i>	
Aroclor-1232 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 [2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 [2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 [2C]	NH,NY,NC,ME,VA
<i>SW-846 8260C in Water</i>	
Acetone	CT,NY,ME,NH,VA
Acetone	CT,NH,NY,ME
tert-Amyl Methyl Ether (TAME)	NH,NY,ME
tert-Amyl Methyl Ether (TAME)	NY,ME,NH,VA
Benzene	CT,NY,ME,NH,VA
Benzene	CT,NH,NY,ME
Bromobenzene	ME
Bromochloromethane	NY,ME,NH,VA
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NY,ME,NH,VA
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromoform	CT,NY,ME,NH,VA
Bromomethane	CT,NH,NY,ME
Bromomethane	CT,NY,ME,NH,VA
2-Butanone (MEK)	CT,NH,NY,ME
2-Butanone (MEK)	CT,NY,ME,NH,VA
tert-Butyl Alcohol (TBA)	NY,ME,NH,VA
n-Butylbenzene	NY,ME
n-Butylbenzene	NY,ME,VA
sec-Butylbenzene	NY,ME
sec-Butylbenzene	NY,ME,VA
tert-Butylbenzene	NY,ME,VA
tert-Butylbenzene	NY,ME
tert-Butyl Ethyl Ether (TBEE)	NH,NY,ME
tert-Butyl Ethyl Ether (TBEE)	NY,ME,NH,VA
Carbon Disulfide	CT,NH,NY,ME
Carbon Disulfide	CT,NY,ME,NH,VA
Carbon Tetrachloride	CT,NY,ME,NH,VA
Carbon Tetrachloride	CT,NH,NY,ME
Chlorobenzene	CT,NY,ME,NH,VA
Chlorobenzene	CT,NH,NY,ME

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Chlorodibromomethane	CT,NY,ME,NH,VA
Chlorodibromomethane	CT,NH,NY,ME
Chloroethane	CT,NH,NY,ME
Chloroethane	CT,NY,ME,NH,VA
Chloroform	CT,NH,NY,ME
Chloroform	CT,NY,ME,NH,VA
Chloromethane	CT,NH,NY,ME
Chloromethane	CT,NY,ME,NH,VA
2-Chlorotoluene	NY,ME,NH,VA
2-Chlorotoluene	NY,ME
4-Chlorotoluene	NY,ME,NH,VA
4-Chlorotoluene	NY,ME
Dibromomethane	NH,NY,ME
Dibromomethane	NY,ME,NH,VA
1,2-Dichlorobenzene	CT,NY,ME
1,2-Dichlorobenzene	CT,NY,ME,NH,VA
1,3-Dichlorobenzene	CT,NY,ME,NH,VA
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,NY,ME,NH,VA
Dichlorodifluoromethane (Freon 12)	NH,NY,ME
Dichlorodifluoromethane (Freon 12)	NY,ME,NH,VA
1,1-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethane	CT,NY,ME,NH,VA
1,2-Dichloroethane	CT,NY,ME,NH,VA
1,2-Dichloroethane	CT,NH,NY,ME
1,1-Dichloroethylene	CT,NY,ME,NH,VA
1,1-Dichloroethylene	CT,NH,NY,ME
cis-1,2-Dichloroethylene	NY,ME
cis-1,2-Dichloroethylene	NY,ME
trans-1,2-Dichloroethylene	CT,NY,ME,NH,VA
trans-1,2-Dichloroethylene	CT,NH,NY,ME
1,2-Dichloropropane	CT,NY,ME,NH,VA
1,2-Dichloropropane	CT,NH,NY,ME
1,3-Dichloropropane	NY,ME,VA
1,3-Dichloropropane	NY,ME
2,2-Dichloropropane	NH,NY,ME
2,2-Dichloropropane	NY,ME,NH,VA
1,1-Dichloropropene	NH,NY,ME
1,1-Dichloropropene	NY,ME,NH,VA
cis-1,3-Dichloropropene	CT,NH,NY,ME
cis-1,3-Dichloropropene	CT,NY,ME,NH,VA
trans-1,3-Dichloropropene	CT,NY,ME,NH,VA
trans-1,3-Dichloropropene	CT,NH,NY,ME
Diisopropyl Ether (DIPE)	NH,NY,ME
Diisopropyl Ether (DIPE)	NY,ME,NH,VA
Ethylbenzene	CT,NY,ME,NH,VA

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Ethylbenzene	CT,NH,NY,ME
Hexachlorobutadiene	CT,NY,ME,NH,VA
Hexachlorobutadiene	CT,NH,NY,ME
2-Hexanone (MBK)	CT,NH,NY,ME
2-Hexanone (MBK)	CT,NY,ME,NH,VA
Isopropylbenzene (Cumene)	NY,ME,VA
Isopropylbenzene (Cumene)	NY,ME
p-Isopropyltoluene (p-Cymene)	CT,NH,NY,ME
p-Isopropyltoluene (p-Cymene)	CT,NY,ME,NH,VA
Methyl tert-Butyl Ether (MTBE)	CT,NY,ME,NH,VA
Methyl tert-Butyl Ether (MTBE)	CT,NH,NY,ME
Methylene Chloride	CT,NH,NY,ME
Methylene Chloride	CT,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	CT,NY,ME,NH,VA
4-Methyl-2-pentanone (MIBK)	CT,NH,NY,ME
Naphthalene	NH,NY,ME
Naphthalene	NY,ME,NH,VA
n-Propylbenzene	CT,NY,ME,NH,VA
n-Propylbenzene	CT,NH,NY,ME
Styrene	CT,NY,ME,NH,VA
Styrene	CT,NH,NY,ME
1,1,1,2-Tetrachloroethane	CT,NY,ME,NH,VA
1,1,1,2-Tetrachloroethane	CT,NH,NY,ME
1,1,2,2-Tetrachloroethane	CT,NY,ME,NH,VA
1,1,2,2-Tetrachloroethane	CT,NH,NY,ME
Tetrachloroethylene	CT,NY,ME,NH,VA
Tetrachloroethylene	CT,NH,NY,ME
Toluene	CT,NH,NY,ME
Toluene	CT,NY,ME,NH,VA
1,2,3-Trichlorobenzene	NY,ME,NH,VA
1,2,3-Trichlorobenzene	NH,NY,ME
1,2,4-Trichlorobenzene	CT,NH,NY,ME
1,2,4-Trichlorobenzene	CT,NY,ME,NH,VA
1,1,1-Trichloroethane	CT,NH,NY,ME
1,1,1-Trichloroethane	CT,NY,ME,NH,VA
1,1,2-Trichloroethane	CT,NH,NY,ME
1,1,2-Trichloroethane	CT,NY,ME,NH,VA
Trichloroethylene	CT,NH,NY,ME
Trichloroethylene	CT,NY,ME,NH,VA
Trichlorofluoromethane (Freon 11)	CT,NH,NY,ME
Trichlorofluoromethane (Freon 11)	CT,NY,ME,NH,VA
1,2,3-Trichloropropane	NH,NY,ME
1,2,3-Trichloropropane	NY,ME,NH,VA
1,2,4-Trimethylbenzene	NY,ME
1,2,4-Trimethylbenzene	NY,ME,VA
1,3,5-Trimethylbenzene	NY,ME,VA
1,3,5-Trimethylbenzene	NY,ME

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
Vinyl Chloride	CT,NH,NY,ME
Vinyl Chloride	CT,NY,ME,NH,VA
m+p Xylene	CT,NY,ME,NH,VA
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
o-Xylene	CT,NY,ME,NH,VA
<i>SW-846 8270D in Water</i>	
Aniline	CT,NY
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	CT,NY,NH
1,3-Dichlorobenzene	CT,NY,NH
1,4-Dichlorobenzene	CT,NY,NH
3,3-Dichlorobenzidine	CT,NY,NH
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH
Phenol	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH

CERTIFICATIONS**Certified Analyses included in this Report**

Analyte	Certifications
<i>SW-846 9014 in Water</i>	

Cyanide NY,CT,NH,NC,ME,VA

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2017
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016



Sample Receipt Checklist

CLIENT NAME: NSTAR / Eversource - Monthly Billing RECEIVED BY: CLM DATE: 6/15/16

1) Was the chain(s) of custody relinquished and signed? Yes ☒ No ☐ No COC Incl.

2) Does the chain agree with the samples?

Yes ☒ No ☐

If not, explain:

3) Are all the samples in good condition?

Yes ☒ No ☐

If not, explain:

4) How were the samples received:

On Ice ☒ Direct from Sampling ☐ Ambient ☐ In Cooler(s) ☒

Were the samples received in Temperature Compliance of (2-6°C)? Yes ☒ No ☐ N/A ☐

Temperature °C by Temp blank ☐ Temperature °C by Temp gun 4.6°C

5) Are there Dissolved samples for the lab to filter?

Yes ☐ No ☒

Who was notified ☐ Date ☐ Time ☐

6) Are there any RUSH or SHORT HOLDING TIME samples?

Yes ☒ No ☐

Who was notified Amber Date 6/15/16 Time 1700

7) Location where samples are stored:

login

Permission to subcontract samples? Yes No

(Walk-in clients only) if not already approved

Client Signature: ☐

8) Do all samples have the proper Acid pH: Yes ☒ No ☐ N/A ☐

9) Do all samples have the proper Base pH: Yes ☒ No ☐ N/A ☐

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes ☐ N/A ☒

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	<u>12</u>	16 oz amber	
500 mL Amber	<u>2</u>	8 oz amber/clear jar	
250 mL Amber (8oz amber)		4 oz amber/clear jar	
1 Liter Plastic	<u>2</u>	2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic	<u>8</u>	SOC Kit	
40 mL Vial - type listed below	<u>12</u>	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

40 mL vials: # HCl 6 # Methanol ☐

Time and Date Frozen: ☐

Doc# 277 # Bisulfate ☐ # DI Water ☐

Rev. 4 August 2013 # Thiosulfate 6 Unpreserved ☐

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

<u>Question</u>	<u>Answer (True/False)</u>	<u>Comment</u>
	<u>T/F/NA</u>	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	4.6°C
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	T	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

CKMC

1700

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory

Project #: 16F0797

Project Location: Station 315

RTN:

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]
16F0797-01 thru 16F0797-02

Matrices: Water

CAM otocol (check all that below)

8260 VOC CAM II A (X)	7470/7471 Hg CAM IIIB ()	MassDEP VPH CAM IV A ()	8081 Pesticides CAM V B ()	7196 Hex Cr CAM VI B (X)	MassDEP APH CAM IX A ()
8270 SVOC CAM II B (X)	7010 Metals CAM III C ()	MassDEP EPH CAM IV A ()	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A ()	6020 Metals CAM III D (X)	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A (X)	6860 Perchlorate CAM VIII B ()	

Affirmative response to uestions A through is required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	☒ Yes ☐ No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	☒ Yes ☐ No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	☒ Yes ☐ No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?	☒ Yes ☐ No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	☐ Yes ☐ No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	☐ Yes ☐ No ¹
F	Were all a cable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?	☒ Yes ☐ No ¹

A response to questions G, H and I below is required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	☐ Yes ☒ No ¹
----------	---	--

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	☐ Yes ☒ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	☐ Yes ☒ No ¹

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

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

Signature: Lisa A. Worthington

Position: Project Manager

Printed Name: Lisa A. Worthington

Date: 06/20/16

June 22, 2016 u

Michael Zylichu
NSTAR Electric & Gas Corporationu
One NSTAR Way, SUM SE-250u
Westwood, MA 02090-9230u

Project Location: Brighton, MAu
Client Job Number: u
Project Number: N-1023-18u
Laboratory Work Order Number: 16F1017u

Enclosed are results of analyses for samples received by the laboratory on June 20, 2016. If you have any questions concerning u
this report, please feel free to contact me.u

Sincerely,u

A handwritten signature in black ink, appearing to read "James Georgantasu". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

James M. Georgantasu
Project Manageru

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39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332NSTAR Electric & Gas Corporation
One NSTAR Way, SUM SE-250
Westwood, MA 02090-9230
ATTN: Michael Zylichu

REPORT DATE: 6/22/2016

PURCHASE ORDER NUMBER: 64454, Release 1

PROJECT NUMBER: N-1023-18

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16F1017

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

PROJECT LOCATION: Brighton, MA

FIELD SAMPLE #	LAB ID	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
RGP-1 (UF)	16F1017-01	Ground Water		SM 5310C SM21-22 2320Bu	MA M-MA071/CT PH-0520
RGP-1 (F)	16F1017-02	Ground Water		SM 5310C SM21-22 2320Bu	MA M-MA071/CT PH-0520

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.

A handwritten signature in black ink, reading "James M. Georgantasu". The signature is fluid and cursive, with a long horizontal stroke extending from the end.

James M. Georgantasu
Project Management Supervisor

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

Project Location: Brighton, MAu

Sample Description:u

Work Order: 16F1017u

Date Received: 6/20/2016u

Field Sample #: RGP-1 (UF)L

Sampled: 6/20/2016 09:37u

Sample ID: 16F1017-01L

Sample Matrix: Ground Wateru

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Alkalinityu	76u	1.0u	mg/Lu	1u		SM21-22 2320Bu	6/22/16u	6/22/16 16:42u	MMHu

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

Project Location: Brighton, MAu

Sample Description:u

Work Order: 16F1017u

Date Received: 6/20/2016u

Field Sample #: RGP-1 (UF)L

Sampled: 6/20/2016 09:37u

Sample ID: 16F1017-01L

Sample Matrix: Ground Wateru

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Total Organic Carbonu	1.56u	0.5u	mg/Lu	1u		SM 5310Cu		6/22/16 0:00u	SALu

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

Project Location: Brighton, MAu

Sample Description:u

Work Order: 16F1017u

Date Received: 6/20/2016u

Field Sample #: RGP-1 (F)L

Sampled: 6/20/2016 09:37u

Sample ID: 16F1017-02L

Sample Matrix: Ground Wateru

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Alkalinityu	150u	1.0u	mg/Lu	1u		SM21-22 2320Bu	6/22/16u	6/22/16 16:42u	MMHu

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Project Location: Brighton, MAu

Sample Description:u

Work Order: 16F1017u

Date Received: 6/20/2016u

Field Sample #: RGP-1 (F)L

Sampled: 6/20/2016 09:37u

Sample ID: 16F1017-02L

Sample Matrix: Ground Wateru

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Total Organic Carbonu	1.62u	0.5u	mg/Lu	1u		SM 5310Cu		6/22/16 0:00u	SALu

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Sample Extraction DataL

SM21-22 2320B

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1017-01 [RGP-1 (UF)]u	B152075u	100u	100u	06/22/16u
16F1017-02 [RGP-1 (F)]u	B152075u	100u	100u	06/22/16u

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
---------	--------	--------------------	-------	----------------	------------------	------	----------------	-----	--------------	-------

Batch B152075 - SM21-22 2320BL
Blank (B152075-BLK1) L

Prepared & Analyzed: 06/22/16 u

Alkalinity	ND	1.0u	mg/Lu							
------------	----	------	-------	--	--	--	--	--	--	--

CS (B152075-BS1) L

Prepared & Analyzed: 06/22/16 u

Alkalinity	26		mg/Lu	27.8u		94.4u	85.7-110u			
------------	----	--	-------	-------	--	-------	-----------	--	--	--

CS Dup (B152075-BSD1) L

Prepared & Analyzed: 06/22/16 u

Alkalinity	26u		mg/Lu	27.8u		94.4u	85.7-110u	0.00u	6.6u	
------------	-----	--	-------	-------	--	-------	-----------	-------	------	--

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

FLAG/QUALIFIER SUMMARY

*u	QC result is outside of established limits.u
†u	Wide recovery limits established for difficult compound.u
‡u	Wide RPD limits established for difficult compound.u
#u	Data exceeded client recommended or regulatory level u
NDu	Not Detectedu
RLu	Reporting Limitu
DLu	Method Detection Limitu
MCLu	Maximum Contaminant Level
Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the u calculation which have not been rounded.u	
No results have been blank subtracted unless specified in the case narrative section.u	

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CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
---------	----------------

SM 5310C in Water

Total Organic Carbon NY,NC,CT,RI,ME,MA,VA

SM 21-22 2320B in Water

Alkalinity CT,MA,NH,NY,RI,NC,ME,VA

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

Code	Description	Number	Expires
AIH	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2016
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2016
FL	Florida Department of Health	E871027 NELAP	06/30/2017
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2016
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com



Page 1 of 2

Sample Receipt Checklist

CLIENT NAME: U STAR RECEIVED BY: JDL DATE: 6/20/16

1) Was the chain(s) of custody relinquished and signed? Yes X No No COC Incl.

2) Does the chain agree with the samples? Yes X No

If not, explain:

3) Are all the samples in good condition? Yes X No

If not, explain:

4) How were the samples received:

On Ice X Direct from Sampling Ambient In Cooler(s) X

Were the samples received in Temperature Compliance of (2-6°C)? Yes X No N/A

Temperature °C by Temp blank Temperature °C by Temp gun 4.1

5) Are there Dissolved samples for the lab to filter? Yes No X

Who was notified Date Time

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes X No

Who was notified Date Time

7) Location where samples are stored:

19

Permission to subcontract samples? Yes No

(Walk-in clients only) if not already approved

Client Signature:

8) Do all samples have the proper Acid pH: Yes X No N/A

9) Do all samples have the proper Base pH: Yes No N/A X

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes N/A X

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber		16 oz amber	
500 mL Amber		8 oz amber/clear jar	
250 mL Amber (8oz amber)	<u>2</u>	4 oz amber/clear jar	
1 Liter Plastic		2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic	<u>2</u>	SOC Kit	
40 mL Vial - type listed below		Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle		Other glass jar	
Encore		Other	

40 mL vials: # HCl # Methanol

Time and Date Frozen:

Doc# 277 # Bisulfate # DI Water

Rev. 4 August 2013 # Thiosulfate Unpreserved

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

Question	Answer (True/False)	Comment
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	T	
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T	
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	NA	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?

Log-In Technician Initials:

JOL

Date/Time:

Date/Time:

5/20/16 1635

June 23, 2016 J

Michael Zylich
NSTAR Electric & Gas Corporation - Monthly BillingJ
One NSTAR Way, SUM SE-250J
East Sandwich, MA 02090-9230J

Project Location: Station 315 Goodenough St.J
Client Job Number: J
Project Number: [none]J
Laboratory Work Order Number: 16F1019J

Enclosed are results of analyses for samples received by the laboratory on June 20, 2016. If you have any questions concerning J
this report, please feel free to contact me.J

Sincerely,

A handwritten signature in black ink, appearing to read "James Georgantas", with a long horizontal flourish extending to the right.

James M. GeorgantasJ
Project ManagerJ

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NSTAR Electric & Gas Corporation - Monthly Billir

One NSTAR Way, SUM SE-250J

East Sandwich, MA 02090-9230J

ATTN: Michael Zylich

REPORT DATE:J 6/23/2016J

PURCHASE ORDER NUMBER:J 64454, Release 1J

PROJECT NUMBER:J [none]J

ANALYTICAL SUMMARYL

WORK ORDER NUMBER:J 16F1019

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

PROJECT LOCATION:J Station 315 Goodenough St.J

FIELD SAMPLE #J	LAB ID:J	MATRIXJ	SAMPLE DESCRIPTIONJ	TEST	SUB LABJ
RGP-2 (UF)J	16F1019-01J	Ground WaterJ		EPA 1664BJ	
				EPA 420.1J	
				SM 5310CJ	MA M-MA071/CT J
					PH-0520J
				SM19-22 4500 NH3 CJ	
				SM21-22 2320BJ	
				SM21-22 2340BJ	
				SM21-22 2510BJ	
				SM21-22 2540BJ	
				SM21-22 2540CJ	
				SM21-22 2540DJ	
				SM21-22 3500 Cr BJ	
				SM21-22 4500 CL BJ	
				SM21-22 4500 CL GJ	
				SM21-22 4500 CN EJ	
				SM21-22 4500 H BJ	
				SM21-22 4500-O CJ	
				SW-846 6020A-BJ	
				SW-846 7470AJ	
				SW-846 8082AJ	
				SW-846 8260CJ	
				SW-846 8270DJ	

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NSTAR Electric & Gas Corporation - Monthly Billir

One NSTAR Way, SUM SE-250J

East Sandwich, MA 02090-9230J

ATTN: Michael Zylich

REPORT DATE:J6/23/2016J

PURCHASE ORDER NUMBER:J 64454, Release 1J

PROJECT NUMBER:J [none]J

ANALYTICAL SUMMARYL

WORK ORDER NUMBER:J 16F1019

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

PROJECT LOCATION:J Station 315 Goodenough St.J

FIELD SAMPLE #J	LAB ID:J	MATRIXJ	SAMPLE DESCRIPTIONJ	TEST	SUB LABJ
RGP-2 (F)J	16F1019-02J	Ground WaterJ		EPA 1664BJ	
				EPA 420.1J	
				SM 5310CJ	MA M-MA071/CT J
					PH-0520J
				SM19-22 4500 NH3 CJ	
				SM21-22 2320BJ	
				SM21-22 2340BJ	
				SM21-22 2510BJ	
				SM21-22 2540BJ	
				SM21-22 2540CJ	
				SM21-22 2540DJ	
				SM21-22 3500 Cr BJ	
				SM21-22 4500 CL BJ	
				SM21-22 4500 CL GJ	
				SM21-22 4500 CN EJ	
				SM21-22 4500 H BJ	
				SM21-22 4500-O CJ	
				SW-846 6020A-BJ	
				SW-846 7470AJ	
				SW-846 8082AJ	
				SW-846 8260CJ	
				SW-846 8270DJ	

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CASE NARRATIVE SUMMARYL

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

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

SM19-22 4500 NH3 CL

Qualifications:L**R-01L**

Duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result.J

Analyte & Samples(s) Qualified:L**Ammonia as NL**

B152136-BSD1J

SM21-22 2540CL

Qualifications:L**R-02L**

Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.J

Analyte & Samples(s) Qualified:L**Total Dissolved SolidsL**

16F1019-01[RGP-2 (UF)], B152006-DUP1J

SM21-22 4500 H BL

Qualifications:L**H-05L**

Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was J exceeded.J

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

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)], B151894-DUP1J

SW-846 8260CL

Qualifications:L**-02L**

Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. Data validation is not J affected since all results are "not detected" for associated samples in this batch and bias is on the high side.J

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

B151880-BS1, B151880-BSD1J

Methylene ChlorideL

B151880-BS1, B151880-BSD1J

-07L

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD J between the two LFB/LCS results is within method specified criteria.J

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

B151880-BS1J

-07AL

Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD J outside of control limits. Reduced precision anticipated for any reported result for this compound.J

Analyte & Samples(s) Qualified:**1,2-Dibromo-3-chloropropane (DBP)**

B151880-BSD1J

R-05L

Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any reported value for this J compound.J

Analyte & Samples(s) Qualified:L**1,2-Dibromo-3-chloropropane (DBP)**

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)], B151880-BLK1, B151880-BS1, B151880-BSD1J

1,4-DioxaneL

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)], B151880-BLK1, B151880-BS1, B151880-BSD1J

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RL-07L

Elevated reporting limit based on lowest point in calibration.J

MA CAM reporting limit not met.J

Analyte & Samples(s) Qualified:L**Carbon DisulfideL**

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)]J

Methylene ChlorideL16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)]J

V-05L

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is J

associated with the reported value which is likely to be biased on the low side.J

Analyte & Samples(s) Qualified:L**1,2-Dibromo-3-chloropropane (DBP)**16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)], B151880-BLK1, B151880-BS1, B151880-BSD1J

V-16L

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported J

result.J

Analyte & Samples(s) Qualified:L**1,4-DioxaneL**16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)], B151880-BLK1, B151880-BS1, B151880-BSD1J

V-20L

Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not affected since sample result J

was "not detected" for this compound.J

Analyte & Samples(s) Qualified:L**Methylene ChlorideL**

B151880-BS1, B151880-BSD1J

SW-846 8270DL**Qualifications:L**

RL-07L

Elevated reporting limit based on lowest point in calibration.J

MA CAM reporting limit not met.J

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

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)]J

HexachlorobutadieneL

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)]J

PentachlorophenolL

16F1019-01[RGP-2 (UF)], 16F1019-02[RGP-2 (F)]J

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SW-846 6010C/D SW-846 6020A/BL

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.J

SW-846 8260CL

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for "difficult analytes" where J recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, J dichlorodifluoromethane, 2-hexanone, and bromomethane.J

SW-846 8270DL

Laboratory control sample recoveries for required MCP Data Enhancement 8270 compounds were all within control limits specified by the method, 40-140% for base/neutrals J and 30-130% for acids except for "difficult analytes" listed below and/or otherwise listed in this narrative. Difficult analytes limits are 15 and 140%: 2,4-dinitrophenol, J 4-chloroaniline, 4-nitrophenol, and phenol.J

The results of analyses reported only relate to samples submitted to the Con-Test Analytical Laboratory for testing.J

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 J 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 J best of my knowledge and belief, accurate and complete.J

A handwritten signature in black ink, appearing to read "Lisa Worthington", is written over a light gray rectangular background.

Lisa A. WorthingtonJ
Project ManagerJ

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

Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Volatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
AcetoneJ	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
tert-Amyl Methyl Ether (TAME)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
BenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
BromobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
BromochloromethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
BromodichloromethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
BromoformJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
BromomethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
2-Butanone (MEK)J	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
n-ButylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
sec-ButylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
tert-ButylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
tert-Butyl Ethyl Ether (TBEE)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Carbon DisulfideJ	NDJ	5.0J	µg/LJ	1J	RL-07J	SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Carbon TetrachlorideJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
ChlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
ChlorodibromomethaneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
ChloroethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
ChloroformJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
ChloromethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
2-ChlorotolueneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
4-ChlorotolueneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2-Dibromo-3-chloropropane (DBCP)J	NDJ	2.0J	µg/LJ	1J	R-05, V-05J	SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2-Dibromoethane (EDB)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
DibromomethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2-DichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,3-DichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,4-DichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Dichlorodifluoromethane (Freon 12)J	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1-DichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2-DichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1-DichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
cis-1,2-DichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
trans-1,2-DichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2-DichloropropaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,3-DichloropropaneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
2,2-DichloropropaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1-DichloropropeneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
cis-1,3-DichloropropeneJ	NDJ	0.40J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
trans-1,3-DichloropropeneJ	NDJ	0.40J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Diethyl EtherJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Diisopropyl Ether (DIPE)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,4-DioxaneJ	NDJ	50J	µg/LJ	1J	R-05, V-16J	SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
EthylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Volatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
HexachlorobutadieneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
2-Hexanone (MBK)J	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Isopropylbenzene (Cumene)J	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
p-Isopropyltoluene (p-Cymene)J	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Methyl tert-Butyl Ether (MTBE)J	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Methylene ChlorideJ	NDJ	5.0J	µg/LJ	1J	RL-07J	SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
4-Methyl-2-pentanone (MIBK)J	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
NaphthaleneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
n-PropylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
StyreneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1,1,2-TetrachloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1,2,2-TetrachloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
TetrachloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
TetrahydrofuranJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
TolueneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2,3-TrichlorobenzeneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2,4-TrichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1,1-TrichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,1,2-TrichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
TrichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Trichlorofluoromethane (Freon 11)J	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2,3-TrichloropropaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,2,4-TrimethylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
1,3,5-TrimethylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
Vinyl ChlorideJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
m+p XyleneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ
o-XyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:15J	LBDJ

SurrogatesL	% RecoveryL	Recovery LimitsL	Flag/QualL
1,2-Dichloroethane-d4J	105J	70-130J	6/21/16 14:15J
Toluene-d8J	92.1J	70-130J	6/21/16 14:15J
4-BromofluorobenzeneJ	89.9J	70-130J	6/21/16 14:15J

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Semivolatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Acenaphthene (low)J	NDJ	0.30J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Acenaphthylene (low)J	NDJ	0.30J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
AcetophenoneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
AnilineJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Anthracene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Benzo(a)anthracene (low)J	NDJ	0.050J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Benzo(a)pyrene (low)J	NDJ	0.10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Benzo(b)fluoranthene (low)J	NDJ	0.050J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Benzo(g,h,i)perylene (low)J	NDJ	0.50J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Benzo(k)fluoranthene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Bis(2-chloroethoxy)methaneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Bis(2-chloroethyl)etherJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Bis(2-chloroisopropyl)etherJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Bis(2-Ethylhexyl)phthalateJ	5.5J	2.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
4-BromophenylphenyletherJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
ButylbenzylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
4-ChloroanilineJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2-ChloronaphthaleneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2-ChlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Chrysene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Dibenz(a,h)anthracene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
DibenzofuranJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Di-n-butylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
1,2-DichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
1,3-DichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
1,4-DichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
3,3-DichlorobenzidineJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,4-DichlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
DiethylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,4-DimethylphenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
DimethylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,4-DinitrophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,4-DinitrotolueneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,6-DinitrotolueneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Di-n-octylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
1,2-Diphenylhydrazine (as Azobenzene)J	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Fluoranthene (low)J	NDJ	0.50J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
Fluorene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
HexachlorobenzeneJ	NDJ	2.0J	µg/LJ	1J	RL-07J	SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
HexachlorobutadieneJ	NDJ	2.0J	µg/LJ	1J	RL-07J	SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
HexachloroethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Indeno(1,2,3-cd)pyrene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
IsophoroneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2-Methylnaphthalene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Semivolatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
2-MethylphenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
3/4-MethylphenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Naphthalene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
NitrobenzeneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2-NitrophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
4-NitrophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
PentachlorophenolJ	NDJ	5.0J	µg/LJ	1J	RL-07J	SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Phenanthrene (low)J	NDJ	0.050J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
PhenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
Pyrene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 11:55J	CJMJ
1,2,4-TrichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,4,5-TrichlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
2,4,6-TrichlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:29J	CMRJ
SurrogatesL	% RecoveryL	Recovery LimitsL	Flag/QualL						
2-FluorophenolJ	52.1J	15-110J						6/21/16 18:29J	
Phenol-d6J	37.6J	15-110J						6/21/16 18:29J	
Nitrobenzene-d5J	74.3J	30-130J						6/21/16 18:29J	
Nitrobenzene-d5 (low)J	62.9J	30-130J						6/22/16 11:55J	
2-FluorobiphenylJ	76.6J	30-130J						6/21/16 18:29J	
2-Fluorobiphenyl (low)J	62.5J	30-130J						6/22/16 11:55J	
2,4,6-TribromophenolJ	74.2J	15-110J						6/21/16 18:29J	
p-Terphenyl-d14J	87.9J	30-130J						6/21/16 18:29J	
p-Terphenyl-d14 (low)J	53.5J	30-130J						6/22/16 11:55J	

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Polychlorinated Biphenyls By GC/ECDL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Aroclor-1016 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1221 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1232 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1242 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1248 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1254 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1260 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1262 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
Aroclor-1268 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:35J	KALJ
SurrogatesL	% RecoveryL	Recovery LimitsL	Flag/QualL						
Decachlorobiphenyl [1]J	98.7J	30-150J							
Decachlorobiphenyl [2]J	90.2J	30-150J							
Tetrachloro-m-xylene [1]J	88.0J	30-150J							
Tetrachloro-m-xylene [2]J	82.3J	30-150J							

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Metals Analyses (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
AntimonyJ	NDJ	1.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
ArsenicJ	NDJ	0.40J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
BariumJ	96J	10J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
BerylliumJ	NDJ	0.40J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
CadmiumJ	NDJ	0.50J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
ChromiumJ	2.5J	1.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
LeadJ	1.8J	1.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
MercuryJ	NDJ	0.00010J	mg/LJ	1J		SW-846 7470AJ	6/21/16J	6/21/16 11:53J	SCBJ
NickelJ	7.4J	5.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
SeleniumJ	NDJ	5.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
SilverJ	NDJ	0.50J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
ThalliumJ	NDJ	0.20J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
VanadiumJ	NDJ	5.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
ZincJ	11J	10J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:14J	MJHJ
HardnessJ	240J	3.0J	mg/LJ	1J		SM21-22 2340BJ	6/22/16J	6/23/16 9:16J	AMEJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
AlkalinityJ	58J	1.0J	mg/LJ	1J		SM21-22 2320BJ	6/22/16J	6/22/16 20:23J	MMHJ
Ammonia as NJ	NDJ	0.30J	mg/LJ	1J		SM19-22 4500 NH3 CJ	6/23/16J	6/23/16 16:16J	MMHJ
ChlorideJ	600J	20J	mg/LJ	20J		SM21-22 4500 CL BJ	6/21/16J	6/21/16 20:05J	DJMJ
Chlorine, ResidualJ	0.072J	0.020J	mg/LJ	1J		SM21-22 4500 CL GJ	6/21/16J	6/21/16 10:55J	DJMJ
CyanideJ	NDJ	0.010J	mg/LJ	1J		SM21-22 4500 CN EJ	6/21/16J	6/21/16 13:30J	VAKJ
Dissolved OxygenJ	4.1J	1.0J	mg/LJ	1J		SM21-22 4500-O CJ	6/20/16J	6/20/16 17:35J	DJMJ
Hexavalent ChromiumJ	NDJ	0.0040J	mg/LJ	1J		SM21-22 3500 Cr BJ	6/20/16J	6/20/16 21:20J	AMMJ
pH @20°CJ	6.3J		pH UnitsJ	1J	H-05J	SM21-22 4500 H BJ	6/20/16J	6/20/16 18:07J	LLJ
PhenolJ	NDJ	0.050J	mg/LJ	1J		EPA 420.1J	6/21/16J	6/22/16 11:00J	LLJ
Specific conductanceJ	1800J	2.0J	µmhos/cmJ	1J		SM21-22 2510BJ	6/22/16J	6/22/16 13:55J	AGJ
Total SolidsJ	1400J	10J	mg/LJ	1J		SM21-22 2540BJ	6/22/16J	6/22/16 13:50J	LLJ
Total Suspended SolidsJ	100J	5.0J	mg/LJ	1J		SM21-22 2540DJ	6/21/16J	6/21/16 13:55J	LLJ
Silica Gel Treated HEM (SGT-HEM)J	NDJ	1.4J	mg/LJ	1J		EPA 1664BJ	6/21/16J	6/21/16 10:35J	LLJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Total Dissolved SolidsJ	1100J	10J	mg/LJ	1J	R-02J	SM21-22 2540CJ	6/22/16J	6/22/16 14:15J	LLJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (UF)L

Sampled: 6/20/2016 12:00J

Sample ID: 16F1019-01L

Sample Matrix: Ground WaterJ

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Total Organic CarbonJ	1.55J	0.5J	mg/LJ	1J		SM 5310CJ		6/22/16 0:00J	SALJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Volatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
AcetoneJ	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
tert-Amyl Methyl Ether (TAME)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
BenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
BromobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
BromochloromethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
BromodichloromethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
BromoformJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
BromomethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
2-Butanone (MEK)J	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
n-ButylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
sec-ButylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
tert-ButylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
tert-Butyl Ethyl Ether (TBEE)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Carbon DisulfideJ	NDJ	5.0J	µg/LJ	1J	RL-07J	SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Carbon TetrachlorideJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
ChlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
ChlorodibromomethaneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
ChloroethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
ChloroformJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
ChloromethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
2-ChlorotolueneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
4-ChlorotolueneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2-Dibromo-3-chloropropane (DBCP)J	NDJ	2.0J	µg/LJ	1J	V-05, R-05J	SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2-Dibromoethane (EDB)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
DibromomethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2-DichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,3-DichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,4-DichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Dichlorodifluoromethane (Freon 12)J	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1-DichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2-DichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1-DichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
cis-1,2-DichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
trans-1,2-DichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2-DichloropropaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,3-DichloropropaneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
2,2-DichloropropaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1-DichloropropeneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
cis-1,3-DichloropropeneJ	NDJ	0.40J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
trans-1,3-DichloropropeneJ	NDJ	0.40J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Diethyl EtherJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Diisopropyl Ether (DIPE)J	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,4-DioxaneJ	NDJ	50J	µg/LJ	1J	R-05, V-16J	SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
EthylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Volatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
HexachlorobutadieneJ	NDJ	0.50J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
2-Hexanone (MBK)J	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Isopropylbenzene (Cumene)J	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
p-Isopropyltoluene (p-Cymene)J	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Methyl tert-Butyl Ether (MTBE)J	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Methylene ChlorideJ	NDJ	5.0J	µg/LJ	1J	RL-07J	SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
4-Methyl-2-pentanone (MIBK)J	NDJ	10J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
NaphthaleneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
n-PropylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
StyreneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1,1,2-TetrachloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1,2,2-TetrachloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
TetrachloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
TetrahydrofuranJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
TolueneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2,3-TrichlorobenzeneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2,4-TrichlorobenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1,1-TrichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,1,2-TrichloroethaneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
TrichloroethyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Trichlorofluoromethane (Freon 11)J	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2,3-TrichloropropaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,2,4-TrimethylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
1,3,5-TrimethylbenzeneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
Vinyl ChlorideJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
m+p XyleneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ
o-XyleneJ	NDJ	1.0J	µg/LJ	1J		SW-846 8260CJ	6/21/16J	6/21/16 14:41J	LBDJ

SurrogatesL	% RecoveryL	Recovery LimitsL	Flag/QualL
1,2-Dichloroethane-d4J	108J	70-130J	6/21/16 14:41J
Toluene-d8J	94.1J	70-130J	6/21/16 14:41J
4-BromofluorobenzeneJ	95.6J	70-130J	6/21/16 14:41J

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Semivolatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Acenaphthene (low)J	NDJ	0.30J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Acenaphthylene (low)J	NDJ	0.30J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
AcetophenoneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
AnilineJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Anthracene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Benzo(a)anthracene (low)J	NDJ	0.050J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Benzo(a)pyrene (low)J	NDJ	0.10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Benzo(b)fluoranthene (low)J	NDJ	0.050J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Benzo(g,h,i)perylene (low)J	NDJ	0.50J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Benzo(k)fluoranthene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Bis(2-chloroethoxy)methaneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Bis(2-chloroethyl)etherJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Bis(2-chloroisopropyl)etherJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Bis(2-Ethylhexyl)phthalateJ	3.9J	2.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
4-BromophenylphenyletherJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
ButylbenzylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
4-ChloroanilineJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2-ChloronaphthaleneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2-ChlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Chrysene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Dibenz(a,h)anthracene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
DibenzofuranJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Di-n-butylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
1,2-DichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
1,3-DichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
1,4-DichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
3,3-DichlorobenzidineJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,4-DichlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
DiethylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,4-DimethylphenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
DimethylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,4-DinitrophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,4-DinitrotolueneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,6-DinitrotolueneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Di-n-octylphthalateJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
1,2-Diphenylhydrazine (as Azobenzene)J	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Fluoranthene (low)J	NDJ	0.50J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
Fluorene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
HexachlorobenzeneJ	NDJ	2.0J	µg/LJ	1J	RL-07J	SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
HexachlorobutadieneJ	NDJ	2.0J	µg/LJ	1J	RL-07J	SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
HexachloroethaneJ	NDJ	2.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Indeno(1,2,3-cd)pyrene (low)J	NDJ	0.20J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
IsophoroneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2-Methylnaphthalene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Semivolatile Organic Compounds by GC/MSL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
2-MethylphenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
3/4-MethylphenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Naphthalene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
NitrobenzeneJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2-NitrophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
4-NitrophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
PentachlorophenolJ	NDJ	5.0J	µg/LJ	1J	RL-07J	SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Phenanthrene (low)J	NDJ	0.050J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
PhenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
Pyrene (low)J	NDJ	1.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/22/16 12:25J	CJMJ
1,2,4-TrichlorobenzeneJ	NDJ	5.0J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,4,5-TrichlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
2,4,6-TrichlorophenolJ	NDJ	10J	µg/LJ	1J		SW-846 8270DJ	6/20/16J	6/21/16 18:59J	CMRJ
SurrogatesL	% RecoveryL	Recovery LimitsL	Flag/QualL						
2-FluorophenolJ	59.5J	15-110J							
Phenol-d6J	41.3J	15-110J							
Nitrobenzene-d5J	86.6J	30-130J							
Nitrobenzene-d5 (low)J	65.1J	30-130J							
2-FluorobiphenylJ	84.6J	30-130J							
2-Fluorobiphenyl (low)J	64.4J	30-130J							
2,4,6-TribromophenolJ	77.9J	15-110J							
p-Terphenyl-d14J	92.3J	30-130J							
p-Terphenyl-d14 (low)J	53.8J	30-130J							

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Polychlorinated Biphenyls By GC/ECDL

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Aroclor-1016 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1221 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1232 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1242 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1248 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1254 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1260 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1262 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
Aroclor-1268 [1]J	NDJ	0.20J	µg/LJ	1J		SW-846 8082AJ	6/20/16J	6/21/16 14:48J	KALJ
SurrogatesL	% RecoveryL	Recovery LimitsL	Flag/QualL						
Decachlorobiphenyl [1]J	103J	30-150J							
Decachlorobiphenyl [2]J	94.4J	30-150J							
Tetrachloro-m-xylene [1]J	89.4J	30-150J							
Tetrachloro-m-xylene [2]J	84.0J	30-150J							

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Metals Analyses (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
AntimonyJ	NDJ	1.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
ArsenicJ	NDJ	0.40J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
BariumJ	91J	10J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
BerylliumJ	NDJ	0.40J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
CadmiumJ	NDJ	0.50J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
ChromiumJ	NDJ	1.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
LeadJ	NDJ	1.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
MercuryJ	NDJ	0.00010J	mg/LJ	1J		SW-846 7470AJ	6/21/16J	6/21/16 11:54J	SCBJ
NickelJ	6.7J	5.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
SeleniumJ	NDJ	5.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
SilverJ	NDJ	0.50J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
ThalliumJ	NDJ	0.20J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
VanadiumJ	NDJ	5.0J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
ZincJ	NDJ	10J	µg/LJ	1J		SW-846 6020A-BJ	6/21/16J	6/22/16 4:17J	MJHJ
HardnessJ	240J	3.0J	mg/LJ	1J		SM21-22 2340BJ	6/22/16J	6/23/16 9:16J	AMEJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
AlkalinityJ	50J	1.0J	mg/LJ	1J		SM21-22 2320BJ	6/22/16J	6/22/16 20:23J	MMHJ
Ammonia as NJ	NDJ	0.30J	mg/LJ	1J		SM19-22 4500 NH3 CJ	6/23/16J	6/23/16 16:16J	MMHJ
ChlorideJ	680J	20J	mg/LJ	20J		SM21-22 4500 CL BJ	6/21/16J	6/21/16 20:05J	DJMJ
Chlorine, ResidualJ	NDJ	0.020J	mg/LJ	1J		SM21-22 4500 CL GJ	6/21/16J	6/21/16 10:55J	DJMJ
CyanideJ	NDJ	0.010J	mg/LJ	1J		SM21-22 4500 CN EJ	6/21/16J	6/21/16 13:30J	VAKJ
Dissolved OxygenJ	5.3J	1.0J	mg/LJ	1J		SM21-22 4500-O CJ	6/20/16J	6/20/16 17:35J	DJMJ
Hexavalent ChromiumJ	NDJ	0.0040J	mg/LJ	1J		SM21-22 3500 Cr BJ	6/20/16J	6/20/16 21:20J	AMMJ
pH @17.2°CJ	6.3J		pH UnitsJ	1J	H-05J	SM21-22 4500 H BJ	6/20/16J	6/20/16 18:07J	LLJ
PhenolJ	NDJ	0.050J	mg/LJ	1J		EPA 420.1J	6/21/16J	6/22/16 11:00J	LLJ
Specific conductanceJ	1800J	2.0J	µmhos/cmJ	1J		SM21-22 2510BJ	6/22/16J	6/22/16 13:55J	AGJ
Total SolidsJ	1000J	10J	mg/LJ	1J		SM21-22 2540BJ	6/22/16J	6/22/16 13:50J	LLJ
Total Suspended SolidsJ	NDJ	5.0J	mg/LJ	1J		SM21-22 2540DJ	6/21/16J	6/21/16 13:55J	LLJ
Silica Gel Treated HEM (SGT-HEM)J	NDJ	1.6J	mg/LJ	1J		EPA 1664BJ	6/21/16J	6/21/16 10:35J	LLJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Total Dissolved SolidsJ	1100J	10J	mg/LJ	1J		SM21-22 2540CJ	6/22/16J	6/22/16 14:15J	LLJ

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Project Location: Station 315 Goodenough St.J

Sample Description:J

Work Order: 16F1019J

Date Received: 6/20/2016J

Field Sample #: RGP-2 (F)L

Sampled: 6/20/2016 13:00J

Sample ID: 16F1019-02L

Sample Matrix: Ground WaterJ

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)L

AnalyteL	ResultsL	RL	UnitsL	DilutionL	Flag/QualL	MethodL	DateL PreparedL	Date/TimeL AnalyzedL	AnalystL
Total Organic CarbonJ	1.06J	0.5J	mg/LJ	1J		SM 5310CJ		6/22/16 0:00J	SALJ

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Sample Extraction DataL**EPA 1664B**

Lab Number [Field ID]L	BatchL	Initial [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151893J	1000J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151893J	900J	06/21/16J

EPA 420.1

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	Date L
16F1019-01 [RGP-2 (UF)]J	B151896J	50.0J	50.0J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151896J	50.0J	50.0J	06/21/16J

SM19-22 4500 NH3 C

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	Date L
16F1019-01 [RGP-2 (UF)]J	B152136J	100J	100J	06/23/16J
16F1019-02 [RGP-2 (F)]J	B152136J	100J	100J	06/23/16J

SM21-22 2320B

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B152098J	100J	100J	06/22/16J
16F1019-02 [RGP-2 (F)]J	B152098J	100J	100J	06/22/16J

Prep Method: SW-846 3005A-SM21-22 2340B

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B152007J	50.0J	50.0J	06/22/16J
16F1019-02 [RGP-2 (F)]J	B152007J	50.0J	50.0J	06/22/16J

SM21-22 2510B

Lab Number [Field ID]L	BatchL	Initial [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B152032J	100J	06/22/16J
16F1019-02 [RGP-2 (F)]J	B152032J	100J	06/22/16J

SM21-22 2540B

Lab Number [Field ID]L	BatchL	Initial [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B152004J	50.0J	06/22/16J
16F1019-02 [RGP-2 (F)]J	B152004J	50.0J	06/22/16J

SM21-22 2540C

Lab Number [Field ID]L	BatchL	Initial [mL]L	Date L
16F1019-01 [RGP-2 (UF)]J	B152006J	50.0J	06/22/16J
16F1019-02 [RGP-2 (F)]J	B152006J	50.0J	06/22/16J

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Sample Extraction DataL**SM21-22 2540D**

Lab Number [Field ID]L	BatchL	Initial [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151897J	100J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151897J	100J	06/21/16J

SM21-22 3500 Cr B

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151868J	50.0J	50.0J	06/20/16J
16F1019-02 [RGP-2 (F)]J	B151868J	50.0J	50.0J	06/20/16J

SM21-22 4500 CL B

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151981J	100J	100J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151981J	100J	100J	06/21/16J

SM21-22 4500 CL G

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151911J	100J	100J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151911J	100J	100J	06/21/16J

SM21-22 4500 CN E

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	Date L
16F1019-01 [RGP-2 (UF)]J	B151912J	50.0J	50.0J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151912J	50.0J	50.0J	06/21/16J

SM21-22 4500 H B

Lab Number [Field ID]L	BatchL	Initial [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151894J	50.0J	06/20/16J
16F1019-02 [RGP-2 (F)]J	B151894J	50.0J	06/20/16J

SM21-22 4500-O C

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	Date L
16F1019-01 [RGP-2 (UF)]J	B152043J	300J	300J	06/20/16J
16F1019-02 [RGP-2 (F)]J	B152043J	300J	300J	06/20/16J

Prep Method: SW-846 3005A-SW-846 6020A-B

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151919J	50.0J	50.0J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151919J	50.0J	50.0J	06/21/16J

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**Sample Extraction DataL****Prep Method: SW-846 7470A Prep-SW-846 7470A**

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151887J	6.00J	6.00J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151887J	6.00J	6.00J	06/21/16J

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151858J	1000J	10.0J	06/20/16J
16F1019-02 [RGP-2 (F)]J	B151858J	1000J	10.0J	06/20/16J

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151880J	5J	5.00J	06/21/16J
16F1019-02 [RGP-2 (F)]J	B151880J	5J	5.00J	06/21/16J

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]L	BatchL	Initial [mL]L	Final [mL]L	DateL
16F1019-01 [RGP-2 (UF)]J	B151856J	1000J	1.00J	06/20/16J
16F1019-02 [RGP-2 (F)]J	B151856J	1000J	1.00J	06/20/16J

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B151880 - SW-846 5030BL

Blank (B151880-BLK1) L

Prepared & Analyzed: 06/21/16 J

AcetoneJ	NDJ	10J	µg/LJ							
tert-Amyl Methyl Ether (TAME)J	NDJ	0.50J	µg/LJ							
BenzeneJ	NDJ	1.0J	µg/LJ							
BromobenzeneJ	NDJ	1.0J	µg/LJ							
BromochloromethaneJ	NDJ	2.0J	µg/LJ							
BromodichloromethaneJ	NDJ	1.0J	µg/LJ							
BromoformJ	NDJ	1.0J	µg/LJ							
BromomethaneJ	NDJ	2.0J	µg/LJ							
2-Butanone (MEK)J	NDJ	10J	µg/LJ							
n-ButylbenzeneJ	NDJ	1.0J	µg/LJ							
sec-ButylbenzeneJ	NDJ	1.0J	µg/LJ							
tert-ButylbenzeneJ	NDJ	1.0J	µg/LJ							
tert-Butyl Ethyl Ether (TBEE)J	NDJ	0.50J	µg/LJ							
Carbon DisulfideJ	NDJ	5.0J	µg/LJ							
Carbon TetrachlorideJ	NDJ	1.0J	µg/LJ							
ChlorobenzeneJ	NDJ	1.0J	µg/LJ							
ChlorodibromomethaneJ	NDJ	0.50J	µg/LJ							
ChloroethaneJ	NDJ	2.0J	µg/LJ							
ChloroformJ	NDJ	2.0J	µg/LJ							
ChloromethaneJ	NDJ	2.0J	µg/LJ							
2-ChlorotolueneJ	NDJ	1.0J	µg/LJ							
4-ChlorotolueneJ	NDJ	1.0J	µg/LJ							
1,2-Dibromo-3-chloropropane (DBCP)J	NDJ	2.0J	µg/LJ							R-05, V-05J
1,2-Dibromoethane (EDB)J	NDJ	0.50J	µg/LJ							
DibromomethaneJ	NDJ	1.0J	µg/LJ							
1,2-DichlorobenzeneJ	NDJ	1.0J	µg/LJ							
1,3-DichlorobenzeneJ	NDJ	1.0J	µg/LJ							
1,4-DichlorobenzeneJ	NDJ	1.0J	µg/LJ							
Dichlorodifluoromethane (Freon 12)J	NDJ	2.0J	µg/LJ							
1,1-DichloroethaneJ	NDJ	1.0J	µg/LJ							
1,2-DichloroethaneJ	NDJ	1.0J	µg/LJ							
1,1-DichloroethyleneJ	NDJ	1.0J	µg/LJ							
cis-1,2-DichloroethyleneJ	NDJ	1.0J	µg/LJ							
trans-1,2-DichloroethyleneJ	NDJ	1.0J	µg/LJ							
1,2-DichloropropaneJ	NDJ	1.0J	µg/LJ							
1,3-DichloropropaneJ	NDJ	0.50J	µg/LJ							
2,2-DichloropropaneJ	NDJ	1.0J	µg/LJ							
1,1-DichloropropeneJ	NDJ	0.50J	µg/LJ							
cis-1,3-DichloropropeneJ	NDJ	0.40J	µg/LJ							
trans-1,3-DichloropropeneJ	NDJ	0.40J	µg/LJ							
Diethyl EtherJ	NDJ	2.0J	µg/LJ							
Diisopropyl Ether (DIPE)J	NDJ	0.50J	µg/LJ							
1,4-DioxaneJ	NDJ	50J	µg/LJ							R-05, V-16J
EthylbenzeneJ	NDJ	1.0J	µg/LJ							
HexachlorobutadieneJ	NDJ	0.50J	µg/LJ							
2-Hexanone (MBK)J	NDJ	10J	µg/LJ							
Isopropylbenzene (Cumene)J	NDJ	1.0J	µg/LJ							
p-Isopropyltoluene (p-Cymene)J	NDJ	1.0J	µg/LJ							
Methyl tert-Butyl Ether (MTBE)J	NDJ	1.0J	µg/LJ							
Methylene ChlorideJ	NDJ	5.0J	µg/LJ							
4-Methyl-2-pentanone (MIBK)J	NDJ	10J	µg/LJ							
NaphthaleneJ	NDJ	2.0J	µg/LJ							

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ LimitsJ	RPDJ LimitJ	Notes J
Batch B151880 - SW-846 5030BL								
Blank (B151880-BLK1) L								
Prepared & Analyzed: 06/21/16 J								
n-PropylbenzeneJ	NDJ	1.0J	µg/LJ					
StyreneJ	NDJ	1.0J	µg/LJ					
1,1,1,2-TetrachloroethaneJ	NDJ	1.0J	µg/LJ					
1,1,2,2-TetrachloroethaneJ	NDJ	1.0J	µg/LJ					
TetrachloroethyleneJ	NDJ	1.0J	µg/LJ					
TetrahydrofuranJ	NDJ	2.0J	µg/LJ					
TolueneJ	NDJ	1.0J	µg/LJ					
1,2,3-TrichlorobenzeneJ	NDJ	2.0J	µg/LJ					
1,2,4-TrichlorobenzeneJ	NDJ	1.0J	µg/LJ					
1,1,1-TrichloroethaneJ	NDJ	1.0J	µg/LJ					
1,1,2-TrichloroethaneJ	NDJ	1.0J	µg/LJ					
TrichloroethyleneJ	NDJ	1.0J	µg/LJ					
Trichlorofluoromethane (Freon 11)J	NDJ	2.0J	µg/LJ					
1,2,3-TrichloropropaneJ	NDJ	2.0J	µg/LJ					
1,2,4-TrimethylbenzeneJ	NDJ	1.0J	µg/LJ					
1,3,5-TrimethylbenzeneJ	NDJ	1.0J	µg/LJ					
Vinyl ChlorideJ	NDJ	2.0J	µg/LJ					
m+p XyleneJ	NDJ	2.0J	µg/LJ					
o-XyleneJ	NDJ	1.0J	µg/LJ					
Surrogate: 1,2-Dichloroethane-d4J	27.3		µg/LJ	25.0J		109J	70-130J	
Surrogate: Toluene-d8J	22.8		µg/LJ	25.0J		91.4J	70-130J	
Surrogate: 4-BromofluorobenzeneJ	22.7		µg/LJ	25.0J		90.8J	70-130J	
CS (B151880-BS1) L								
Prepared & Analyzed: 06/21/16 J								
AcetoneJ	120J	10J	µg/LJ	100J		120J	40-160J	†J
tert-Amyl Methyl Ether (TAME)J	9.67J	0.50J	µg/LJ	10.0J		96.7J	70-130J	
BenzeneJ	10.1J	1.0J	µg/LJ	10.0J		101J	70-130J	
BromobenzeneJ	11.8J	1.0J	µg/LJ	10.0J		118J	70-130J	
BromochloromethaneL	13.9J	2.0J	µg/LJ	10.0J		139 *J	70-130J	L-02J
BromodichloromethaneJ	10.9J	1.0J	µg/LJ	10.0J		109J	70-130J	
BromoformJ	12.6J	1.0J	µg/LJ	10.0J		126J	70-130J	
BromomethaneJ	6.69J	2.0J	µg/LJ	10.0J		66.9J	40-160J	L-14J †J
2-Butanone (MEK)J	121J	10J	µg/LJ	100J		121J	40-160J	†J
n-ButylbenzeneJ	9.81J	1.0J	µg/LJ	10.0J		98.1J	70-130J	
sec-ButylbenzeneJ	10.5J	1.0J	µg/LJ	10.0J		105J	70-130J	
tert-ButylbenzeneJ	9.55J	1.0J	µg/LJ	10.0J		95.5J	70-130J	
tert-Butyl Ethyl Ether (TBEE)J	10.7J	0.50J	µg/LJ	10.0J		107J	70-130J	
Carbon DisulfideL	13.2J	5.0J	µg/LJ	10.0J		132L *J	70-130J	L-07J
Carbon TetrachlorideJ	10.5J	1.0J	µg/LJ	10.0J		105J	70-130J	
ChlorobenzeneJ	11.0J	1.0J	µg/LJ	10.0J		110J	70-130J	
ChlorodibromomethaneJ	10.1J	0.50J	µg/LJ	10.0J		101J	70-130J	
ChloroethaneJ	10.5J	2.0J	µg/LJ	10.0J		105J	70-130J	
ChloroformJ	10.1J	2.0J	µg/LJ	10.0J		101J	70-130J	
ChloromethaneJ	9.51J	2.0J	µg/LJ	10.0J		95.1J	40-160J	†J
2-ChlorotolueneJ	11.4J	1.0J	µg/LJ	10.0J		114J	70-130J	
4-ChlorotolueneJ	11.1J	1.0J	µg/LJ	10.0J		111J	70-130J	
1,2-Dibromo-3-chloropropane (DBCP)J	8.43J	2.0J	µg/LJ	10.0J		84.3J	70-130J	R-05, V-05J
1,2-Dibromoethane (EDB)J	10.2J	0.50J	µg/LJ	10.0J		102J	70-130J	
DibromomethaneJ	10.0J	1.0J	µg/LJ	10.0J		100J	70-130J	
1,2-DichlorobenzeneJ	9.82J	1.0J	µg/LJ	10.0J		98.2J	70-130J	
1,3-DichlorobenzeneJ	10.5J	1.0J	µg/LJ	10.0J		105J	70-130J	
1,4-DichlorobenzeneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J	

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151880 - SW-846 5030B										
LCS (B151880-BS1) L				Prepared & Analyzed: 06/21/16 J						
Dichlorodifluoromethane (Freon 12)J	6.19J	2.0J	µg/LJ	10.0J		61.9J	40-160J			L-14J †J
1,1-DichloroethaneJ	11.3J	1.0J	µg/LJ	10.0J		113J	70-130J			
1,2-DichloroethaneJ	10.8J	1.0J	µg/LJ	10.0J		108J	70-130J			
1,1-DichloroethyleneJ	10.2J	1.0J	µg/LJ	10.0J		102J	70-130J			
cis-1,2-DichloroethyleneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J			
trans-1,2-DichloroethyleneJ	10.7J	1.0J	µg/LJ	10.0J		107J	70-130J			
1,2-DichloropropaneJ	11.3J	1.0J	µg/LJ	10.0J		113J	70-130J			
1,3-DichloropropaneJ	9.68J	0.50J	µg/LJ	10.0J		96.8J	70-130J			
2,2-DichloropropaneJ	10.2J	1.0J	µg/LJ	10.0J		102J	70-130J			
1,1-DichloropropeneJ	10.6J	0.50J	µg/LJ	10.0J		106J	70-130J			
cis-1,3-DichloropropeneJ	8.74J	0.40J	µg/LJ	10.0J		87.4J	70-130J			
trans-1,3-DichloropropeneJ	9.48J	0.40J	µg/LJ	10.0J		94.8J	70-130J			
Diethyl EtherJ	9.97J	2.0J	µg/LJ	10.0J		99.7J	70-130J			
Diisopropyl Ether (DIPE)J	12.5J	0.50J	µg/LJ	10.0J		125J	70-130J			
1,4-DioxaneJ	103J	50J	µg/LJ	100J		103J	40-160J		R-05, V-16J	†J
EthylbenzeneJ	10.8J	1.0J	µg/LJ	10.0J		108J	70-130J			
HexachlorobutadieneJ	11.4J	0.50J	µg/LJ	10.0J		114J	70-130J			
2-Hexanone (MBK)J	123J	10J	µg/LJ	100J		123J	40-160J			†J
Isopropylbenzene (Cumene)J	10.7J	1.0J	µg/LJ	10.0J		107J	70-130J			
p-Isopropyltoluene (p-Cymene)J	9.99J	1.0J	µg/LJ	10.0J		99.9J	70-130J			
Methyl tert-Butyl Ether (MTBE)J	9.58J	1.0J	µg/LJ	10.0J		95.8J	70-130J			
Methylene ChlorideL	15.8J	5.0J	µg/LJ	10.0J		158L *J	70-130J			L-02, V-20J
4-Methyl-2-pentanone (MIBK)J	128J	10J	µg/LJ	100J		128J	40-160J			†J
NaphthaleneJ	8.55J	2.0J	µg/LJ	10.0J		85.5J	70-130J			
n-PropylbenzeneJ	10.7J	1.0J	µg/LJ	10.0J		107J	70-130J			
StyreneJ	10.6J	1.0J	µg/LJ	10.0J		106J	70-130J			
1,1,1,2-TetrachloroethaneJ	11.4J	1.0J	µg/LJ	10.0J		114J	70-130J			
1,1,1,2,2-TetrachloroethaneJ	9.87J	1.0J	µg/LJ	10.0J		98.7J	70-130J			
TetrachloroethyleneJ	11.2J	1.0J	µg/LJ	10.0J		112J	70-130J			
TetrahydrofuranJ	10.9J	2.0J	µg/LJ	10.0J		109J	70-130J			
TolueneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J			
1,2,3-TrichlorobenzeneJ	9.24J	2.0J	µg/LJ	10.0J		92.4J	70-130J			
1,2,4-TrichlorobenzeneJ	10.1J	1.0J	µg/LJ	10.0J		101J	70-130J			
1,1,1-TrichloroethaneJ	10.6J	1.0J	µg/LJ	10.0J		106J	70-130J			
1,1,2-TrichloroethaneJ	10.3J	1.0J	µg/LJ	10.0J		103J	70-130J			
TrichloroethyleneJ	10.7J	1.0J	µg/LJ	10.0J		107J	70-130J			
Trichlorofluoromethane (Freon 11)J	10.2J	2.0J	µg/LJ	10.0J		102J	70-130J			
1,2,3-TrichloropropaneJ	10.6J	2.0J	µg/LJ	10.0J		106J	70-130J			
1,2,4-TrimethylbenzeneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J			
1,3,5-TrimethylbenzeneJ	11.3J	1.0J	µg/LJ	10.0J		113J	70-130J			
Vinyl ChlorideJ	8.97J	2.0J	µg/LJ	10.0J		89.7J	70-130J			
m+p XyleneJ	21.4J	2.0J	µg/LJ	20.0J		107J	70-130J			
o-XyleneJ	10.3J	1.0J	µg/LJ	10.0J		103J	70-130J			
Surrogate: 1,2-Dichloroethane-d4J	25.1		µg/LJ	25.0J		100J	70-130J			
Surrogate: Toluene-d8J	24.5		µg/LJ	25.0J		98.0J	70-130J			
Surrogate: 4-BromofluorobenzeneJ	27.2		µg/LJ	25.0J		109J	70-130J			

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151880 - SW-846 5030B										
LCS Dup (B151880-BSD1) L										
Prepared & Analyzed: 06/21/16 J										
AcetoneJ	126J	10J	µg/LJ	100J		126J	40-160J	5.07J	20J	†J
tert-Amyl Methyl Ether (TAME)J	9.12J	0.50J	µg/LJ	10.0J		91.2J	70-130J	5.85J	20J	
BenzeneJ	9.91J	1.0J	µg/LJ	10.0J		99.1J	70-130J	1.50J	20J	
BromobenzeneJ	11.1J	1.0J	µg/LJ	10.0J		111J	70-130J	6.54J	20J	
BromochloromethaneL	13.2J	2.0J	µg/LJ	10.0J		132L *J	70-130J	5.03J	20J	L-02J
BromodichloromethaneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J	4.80J	20J	
BromoformJ	12.0J	1.0J	µg/LJ	10.0J		120J	70-130J	4.46J	20J	
BromomethaneJ	7.30J	2.0J	µg/LJ	10.0J		73.0J	40-160J	8.72J	20J	†J
2-Butanone (MEK)J	120J	10J	µg/LJ	100J		120J	40-160J	0.672J	20J	†J
n-ButylbenzeneJ	9.76J	1.0J	µg/LJ	10.0J		97.6J	70-130J	0.511J	20J	
sec-ButylbenzeneJ	9.99J	1.0J	µg/LJ	10.0J		99.9J	70-130J	4.60J	20J	
tert-ButylbenzeneJ	9.49J	1.0J	µg/LJ	10.0J		94.9J	70-130J	0.630J	20J	
tert-Butyl Ethyl Ether (TBEE)J	10.5J	0.50J	µg/LJ	10.0J		105J	70-130J	1.88J	20J	
Carbon DisulfideJ	12.3J	5.0J	µg/LJ	10.0J		123J	70-130J	7.28J	20J	
Carbon TetrachlorideJ	10.7J	1.0J	µg/LJ	10.0J		107J	70-130J	2.27J	20J	
ChlorobenzeneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J	5.72J	20J	
ChlorodibromomethaneJ	9.58J	0.50J	µg/LJ	10.0J		95.8J	70-130J	5.68J	20J	
ChloroethaneJ	10.9J	2.0J	µg/LJ	10.0J		109J	70-130J	3.83J	20J	
ChloroformJ	10.1J	2.0J	µg/LJ	10.0J		101J	70-130J	0.792J	20J	
ChloromethaneJ	8.45J	2.0J	µg/LJ	10.0J		84.5J	40-160J	11.8J	20J	†J
2-ChlorotolueneJ	11.1J	1.0J	µg/LJ	10.0J		111J	70-130J	2.49J	20J	
4-ChlorotolueneJ	10.6J	1.0J	µg/LJ	10.0J		106J	70-130J	4.23J	20J	
1,2-Dibromo-3-chloropropane (DBCP)L	14.0J	2.0J	µg/LJ	10.0J		140L *J	70-130J	49.4L *J	20J	L-07A, R-05, V-05J
1,2-Dibromoethane (EDB)J	9.54J	0.50J	µg/LJ	10.0J		95.4J	70-130J	7.18J	20J	
DibromomethaneJ	9.03J	1.0J	µg/LJ	10.0J		90.3J	70-130J	10.4J	20J	
1,2-DichlorobenzeneJ	9.65J	1.0J	µg/LJ	10.0J		96.5J	70-130J	1.75J	20J	
1,3-DichlorobenzeneJ	10.3J	1.0J	µg/LJ	10.0J		103J	70-130J	2.31J	20J	
1,4-DichlorobenzeneJ	10.6J	1.0J	µg/LJ	10.0J		106J	70-130J	2.09J	20J	
Dichlorodifluoromethane (Freon 12)J	6.05J	2.0J	µg/LJ	10.0J		60.5J	40-160J	2.29J	20J	L-14J †J
1,1-DichloroethaneJ	11.4J	1.0J	µg/LJ	10.0J		114J	70-130J	1.05J	20J	
1,2-DichloroethaneJ	11.5J	1.0J	µg/LJ	10.0J		115J	70-130J	6.56J	20J	
1,1-DichloroethyleneJ	10.1J	1.0J	µg/LJ	10.0J		101J	70-130J	1.57J	20J	
cis-1,2-DichloroethyleneJ	11.2J	1.0J	µg/LJ	10.0J		112J	70-130J	7.77J	20J	
trans-1,2-DichloroethyleneJ	10.2J	1.0J	µg/LJ	10.0J		102J	70-130J	5.37J	20J	
1,2-DichloropropaneJ	10.7J	1.0J	µg/LJ	10.0J		107J	70-130J	5.72J	20J	
1,3-DichloropropaneJ	9.63J	0.50J	µg/LJ	10.0J		96.3J	70-130J	0.518J	20J	
2,2-DichloropropaneJ	9.80J	1.0J	µg/LJ	10.0J		98.0J	70-130J	3.51J	20J	
1,1-DichloropropeneJ	10.1J	0.50J	µg/LJ	10.0J		101J	70-130J	4.16J	20J	
cis-1,3-DichloropropeneJ	8.25J	0.40J	µg/LJ	10.0J		82.5J	70-130J	5.77J	20J	
trans-1,3-DichloropropeneJ	8.91J	0.40J	µg/LJ	10.0J		89.1J	70-130J	6.20J	20J	
Diethyl EtherJ	10.2J	2.0J	µg/LJ	10.0J		102J	70-130J	2.28J	20J	
Diisopropyl Ether (DIPE)J	12.4J	0.50J	µg/LJ	10.0J		124J	70-130J	1.21J	20J	
1,4-DioxaneJ	144J	50J	µg/LJ	100J		144J	40-160J	33.2L *J	20J	L-14, R-05, V-16J †J
EthylbenzeneJ	10.8J	1.0J	µg/LJ	10.0J		108J	70-130J	0.834J	20J	
HexachlorobutadieneJ	9.87J	0.50J	µg/LJ	10.0J		98.7J	70-130J	14.5J	20J	
2-Hexanone (MBK)J	127J	10J	µg/LJ	100J		127J	40-160J	3.36J	20J	†J
Isopropylbenzene (Cumene)J	10.5J	1.0J	µg/LJ	10.0J		105J	70-130J	2.08J	20J	
p-Isopropyltoluene (p-Cymene)J	9.94J	1.0J	µg/LJ	10.0J		99.4J	70-130J	0.502J	20J	
Methyl tert-Butyl Ether (MTBE)J	9.54J	1.0J	µg/LJ	10.0J		95.4J	70-130J	0.418J	20J	
Methylene ChlorideL	15.2J	5.0J	µg/LJ	10.0J		152L *J	70-130J	3.94J	20J	V-20, L-02J
4-Methyl-2-pentanone (MIBK)J	128J	10J	µg/LJ	100J		128J	40-160J	0.187J	20J	†J
NaphthaleneJ	8.35J	2.0J	µg/LJ	10.0J		83.5J	70-130J	2.37J	20J	

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151880 - SW-846 5030B										
LCS Dup (B151880-BSD1) L				Prepared & Analyzed: 06/21/16 J						
n-PropylbenzeneJ	10.5J	1.0J	µg/LJ	10.0J		105J	70-130J	1.80J	20J	
StyreneJ	10.5J	1.0J	µg/LJ	10.0J		105J	70-130J	0.851J	20J	
1,1,1,2-TetrachloroethaneJ	11.4J	1.0J	µg/LJ	10.0J		114J	70-130J	0.527J	20J	
1,1,2,2-TetrachloroethaneJ	9.85J	1.0J	µg/LJ	10.0J		98.5J	70-130J	0.203J	20J	
TetrachloroethyleneJ	10.6J	1.0J	µg/LJ	10.0J		106J	70-130J	5.58J	20J	
TetrahydrofuranJ	11.6J	2.0J	µg/LJ	10.0J		116J	70-130J	6.04J	20J	
TolueneJ	10.1J	1.0J	µg/LJ	10.0J		101J	70-130J	2.34J	20J	
1,2,3-TrichlorobenzeneJ	9.38J	2.0J	µg/LJ	10.0J		93.8J	70-130J	1.50J	20J	
1,2,4-TrichlorobenzeneJ	9.73J	1.0J	µg/LJ	10.0J		97.3J	70-130J	3.34J	20J	
1,1,1-TrichloroethaneJ	9.89J	1.0J	µg/LJ	10.0J		98.9J	70-130J	6.55J	20J	
1,1,2-TrichloroethaneJ	10.4J	1.0J	µg/LJ	10.0J		104J	70-130J	1.54J	20J	
TrichloroethyleneJ	10.3J	1.0J	µg/LJ	10.0J		103J	70-130J	3.33J	20J	
Trichlorofluoromethane (Freon 11)J	9.76J	2.0J	µg/LJ	10.0J		97.6J	70-130J	4.51J	20J	
1,2,3-TrichloropropaneJ	10.9J	2.0J	µg/LJ	10.0J		109J	70-130J	2.32J	20J	
1,2,4-TrimethylbenzeneJ	10.1J	1.0J	µg/LJ	10.0J		101J	70-130J	2.82J	20J	
1,3,5-TrimethylbenzeneJ	10.8J	1.0J	µg/LJ	10.0J		108J	70-130J	4.33J	20J	
Vinyl ChlorideJ	7.56J	2.0J	µg/LJ	10.0J		75.6J	70-130J	17.1J	20J	
m+p XyleneJ	20.4J	2.0J	µg/LJ	20.0J		102J	70-130J	4.89J	20J	
o-XyleneJ	10.2J	1.0J	µg/LJ	10.0J		102J	70-130J	0.293J	20J	
Surrogate: 1,2-Dichloroethane-d4J	25.0.		µg/LJ	25.0J		100J	70-130J			
Surrogate: Toluene-d8J	24.9.		µg/LJ	25.0J		99.7J	70-130J			
Surrogate: 4-BromofluorobenzeneJ	26.0.		µg/LJ	25.0J		104J	70-130J			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B151856 - SW-846 3510CL

Blank (B151856-BLK1) L

Prepared: 06/20/16 Analyzed: 06/22/16 J

Acenaphthene (low)J	NDJ	0.30J	µg/LJ
Acenaphthylene (low)J	NDJ	0.30J	µg/LJ
AcetophenoneJ	NDJ	10J	µg/LJ
AnilineJ	NDJ	5.0J	µg/LJ
Anthracene (low)J	NDJ	0.20J	µg/LJ
Benzo(a)anthracene (low)J	NDJ	0.050J	µg/LJ
Benzo(a)pyrene (low)J	NDJ	0.10J	µg/LJ
Benzo(b)fluoranthene (low)J	NDJ	0.050J	µg/LJ
Benzo(g,h,i)perylene (low)J	NDJ	0.50J	µg/LJ
Benzo(k)fluoranthene (low)J	NDJ	0.20J	µg/LJ
Bis(2-chloroethoxy)methaneJ	NDJ	10J	µg/LJ
Bis(2-chloroethyl)etherJ	NDJ	10J	µg/LJ
Bis(2-chloroisopropyl)etherJ	NDJ	10J	µg/LJ
Bis(2-Ethylhexyl)phthalateJ	NDJ	10J	µg/LJ
4-BromophenylphenyletherJ	NDJ	10J	µg/LJ
ButylbenzylphthalateJ	NDJ	10J	µg/LJ
4-ChloroanilineJ	NDJ	10J	µg/LJ
2-ChloronaphthaleneJ	NDJ	10J	µg/LJ
2-ChlorophenolJ	NDJ	10J	µg/LJ
Chrysene (low)J	NDJ	0.20J	µg/LJ
Dibenz(a,h)anthracene (low)J	NDJ	0.20J	µg/LJ
DibenzofuranJ	NDJ	5.0J	µg/LJ
Di-n-butylphthalateJ	NDJ	10J	µg/LJ
1,2-DichlorobenzeneJ	NDJ	5.0J	µg/LJ
1,3-DichlorobenzeneJ	NDJ	5.0J	µg/LJ
1,4-DichlorobenzeneJ	NDJ	5.0J	µg/LJ
3,3-DichlorobenzidineJ	NDJ	10J	µg/LJ
2,4-DichlorophenolJ	NDJ	10J	µg/LJ
DiethylphthalateJ	NDJ	10J	µg/LJ
2,4-DimethylphenolJ	NDJ	10J	µg/LJ
DimethylphthalateJ	NDJ	10J	µg/LJ
2,4-DinitrophenolJ	NDJ	10J	µg/LJ
2,4-DinitrotolueneJ	NDJ	10J	µg/LJ
2,6-DinitrotolueneJ	NDJ	10J	µg/LJ
Di-n-octylphthalateJ	NDJ	10J	µg/LJ
1,2-Diphenylhydrazine (as Azobenzene)J	NDJ	10J	µg/LJ
Fluoranthene (low)J	NDJ	0.50J	µg/LJ
Fluorene (low)J	NDJ	1.0J	µg/LJ
HexachlorobenzeneJ	NDJ	10J	µg/LJ
HexachlorobutadieneJ	NDJ	10J	µg/LJ
HexachloroethaneJ	NDJ	10J	µg/LJ
Indeno(1,2,3-cd)pyrene (low)J	NDJ	0.20J	µg/LJ
IsophoroneJ	NDJ	10J	µg/LJ
2-Methylnaphthalene (low)J	NDJ	1.0J	µg/LJ
2-MethylphenolJ	NDJ	10J	µg/LJ
3/4-MethylphenolJ	NDJ	10J	µg/LJ
Naphthalene (low)J	NDJ	1.0J	µg/LJ
NitrobenzeneJ	NDJ	10J	µg/LJ
2-NitrophenolJ	NDJ	10J	µg/LJ
4-NitrophenolJ	NDJ	10J	µg/LJ
PentachlorophenolJ	NDJ	10J	µg/LJ
Phenanthrene (low)J	NDJ	0.050J	µg/LJ

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B151856 - SW-846 3510CL

Blank (B151856-BLK1) L

Prepared: 06/20/16 Analyzed: 06/21/16 J

PhenolJ	NDJ	10J	µg/LJ							
Pyrene (low)J	NDJ	1.0J	µg/LJ							
1,2,4-TrichlorobenzeneJ	NDJ	5.0J	µg/LJ							
2,4,5-TrichlorophenolJ	NDJ	10J	µg/LJ							
2,4,6-TrichlorophenolJ	NDJ	10J	µg/LJ							
Surrogate: 2-FluorophenolJ	91.9.		µg/LJ	200J		46.0J	15-110J			
Surrogate: Phenol-d6J	65.8.		µg/LJ	200J		32.9J	15-110J			
Surrogate: Nitrobenzene-d5J	70.3.		µg/LJ	100J		70.3J	30-130			
Surrogate: Nitrobenzene-d5 (low)J	60.4.		µg/LJ	100J		60.4J	30-130			
Surrogate: 2-FluorobiphenylJ	71.1.		µg/LJ	100J		71.1J	30-130			
Surrogate: 2-Fluorobiphenyl (low)J	61.3.		µg/LJ	100J		61.3J	30-130			
Surrogate: 2,4,6-TribromophenolJ	139.		µg/LJ	200J		69.3J	15-110J			
Surrogate: p-Terphenyl-d14J	81.8.		µg/LJ	100J		81.8J	30-130			
Surrogate: p-Terphenyl-d14 (low)J	52.7		µg/LJ	100J		52.7J	30-130			

CS (B151856-BS1) L

Prepared: 06/20/16 Analyzed: 06/22/16 J

Acenaphthene (low)J	43.6J	7.5J	µg/LJ	50.0J		87.3J	40-140			
Acenaphthylene (low)J	45.6J	7.5J	µg/LJ	50.0J		91.2J	40-140			
AcetophenoneJ	36.6J	10J	µg/LJ	50.0J		73.3J	40-140			
AnilineJ	32.0J	5.0J	µg/LJ	50.0J		64.0J	40-140			
Anthracene (low)J	45.5J	5.0J	µg/LJ	50.0J		91.0J	40-140			
Benzo(a)anthracene (low)J	45.6J	1.2J	µg/LJ	50.0J		91.3J	40-140			
Benzo(a)pyrene (low)J	49.6J	2.5J	µg/LJ	50.0J		99.2J	40-140			
Benzo(b)fluoranthene (low)J	50.4J	1.2J	µg/LJ	50.0J		101J	40-140			
Benzo(g,h,i)perylene (low)J	45.2J	12J	µg/LJ	50.0J		90.5J	40-140			
Benzo(k)fluoranthene (low)J	46.2J	5.0J	µg/LJ	50.0J		92.4J	40-140			
Bis(2-chloroethoxy)methaneJ	40.6J	10J	µg/LJ	50.0J		81.1J	40-140			
Bis(2-chloroethyl)etherJ	39.0J	10J	µg/LJ	50.0J		78.0J	40-140			
Bis(2-chloroisopropyl)etherJ	37.3J	10J	µg/LJ	50.0J		74.7J	40-140			
Bis(2-Ethylhexyl)phthalateJ	47.0J	10J	µg/LJ	50.0J		93.9J	40-140			
4-BromophenylphenyletherJ	39.9J	10J	µg/LJ	50.0J		79.8J	40-140			
ButylbenzylphthalateJ	43.5J	10J	µg/LJ	50.0J		87.1J	40-140			
4-ChloroanilineJ	34.4J	10J	µg/LJ	50.0J		68.8J	15-140			†J
2-ChloronaphthaleneJ	32.7J	10J	µg/LJ	50.0J		65.5J	40-140			
2-ChlorophenolJ	35.3J	10J	µg/LJ	50.0J		70.7J	30-130			
Chrysene (low)J	41.9J	5.0J	µg/LJ	50.0J		83.8J	40-140			
Dibenz(a,h)anthracene (low)J	47.3J	5.0J	µg/LJ	50.0J		94.6J	40-140			
DibenzofuranJ	40.5J	5.0J	µg/LJ	50.0J		81.1J	40-140			
Di-n-butylphthalateJ	41.7J	10J	µg/LJ	50.0J		83.3J	40-140			
1,2-DichlorobenzeneJ	29.7J	5.0J	µg/LJ	50.0J		59.3J	40-140			
1,3-DichlorobenzeneJ	28.7J	5.0J	µg/LJ	50.0J		57.3J	40-140			
1,4-DichlorobenzeneJ	29.1J	5.0J	µg/LJ	50.0J		58.3J	40-140			
3,3-DichlorobenzidineJ	33.4J	10J	µg/LJ	50.0J		66.9J	40-140			
2,4-DichlorophenolJ	37.5J	10J	µg/LJ	50.0J		75.0J	30-130			
DiethylphthalateJ	42.2J	10J	µg/LJ	50.0J		84.4J	40-140			
2,4-DimethylphenolJ	35.4J	10J	µg/LJ	50.0J		70.9J	30-130			
DimethylphthalateJ	41.4J	10J	µg/LJ	50.0J		82.8J	40-140			
2,4-DinitrophenolJ	38.6J	10J	µg/LJ	50.0J		77.2J	15-140			†J
2,4-DinitrotolueneJ	40.4J	10J	µg/LJ	50.0J		80.8J	40-140			
2,6-DinitrotolueneJ	42.8J	10J	µg/LJ	50.0J		85.6J	40-140			
Di-n-octylphthalateJ	44.8J	10J	µg/LJ	50.0J		89.5J	40-140			
1,2-Diphenylhydrazine (as Azobenzene)J	40.7J	10J	µg/LJ	50.0J		81.4J	40-140			

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151856 - SW-846 3510C									
LCS (B151856-BS1) L									
					Prepared: 06/20/16 Analyzed: 06/22/16 J				
Fluoranthene (low)J	49.2J	12J	µg/LJ	50.0J		98.5J	40-140		
Fluorene (low)J	45.4J	25J	µg/LJ	50.0J		90.8J	40-140		
HexachlorobenzeneJ	37.0J	10J	µg/LJ	50.0J		74.0J	40-140		
HexachlorobutadieneJ	31.8J	10J	µg/LJ	50.0J		63.6J	40-140		
HexachloroethaneJ	30.3J	10J	µg/LJ	50.0J		60.6J	40-140		
Indeno(1,2,3-cd)pyrene (low)J	47.3J	5.0J	µg/LJ	50.0J		94.6J	40-140		
IsophoroneJ	41.0J	10J	µg/LJ	50.0J		82.0J	40-140		
2-Methylnaphthalene (low)J	42.3J	25J	µg/LJ	50.0J		84.6J	40-140		
2-MethylphenolJ	34.2J	10J	µg/LJ	50.0J		68.5J	30-130		
3/4-MethylphenolJ	33.2J	10J	µg/LJ	50.0J		66.4J	30-130		
Naphthalene (low)J	35.9J	25J	µg/LJ	50.0J		71.8J	40-140		
NitrobenzeneJ	37.6J	10J	µg/LJ	50.0J		75.3J	40-140		
2-NitrophenolJ	36.8J	10J	µg/LJ	50.0J		73.6J	30-130		
4-NitrophenolJ	28.1J	10J	µg/LJ	50.0J		56.2J	15-140		†J
PentachlorophenolJ	30.8J	10J	µg/LJ	50.0J		61.5J	30-130		
Phenanthrene (low)J	42.0J	1.2J	µg/LJ	50.0J		84.0J	40-140		
PhenolJ	20.7J	10J	µg/LJ	50.0J		41.4J	15-140		†J
Pyrene (low)J	44.8J	25J	µg/LJ	50.0J		89.6J	40-140		
1,2,4-TrichlorobenzeneJ	32.2J	5.0J	µg/LJ	50.0J		64.5J	40-140		
2,4,5-TrichlorophenolJ	38.5J	10J	µg/LJ	50.0J		77.0J	30-130		
2,4,6-TrichlorophenolJ	38.3J	10J	µg/LJ	50.0J		76.6J	30-130		
Surrogate: 2-FluorophenolJ	109.		µg/LJ	200J		54.4J	15-110J		
Surrogate: Phenol-d6J	78.2.		µg/LJ	200J		39.1J	15-110J		
Surrogate: Nitrobenzene-d5J	83.7.		µg/LJ	100J		83.7J	30-130		
Surrogate: Nitrobenzene-d5 (low)J	79.2.		µg/LJ	100J		79.2J	30-130		
Surrogate: 2-FluorobiphenylJ	82.8.		µg/LJ	100J		82.8J	30-130		
Surrogate: 2-Fluorobiphenyl (low)J	88.6.		µg/LJ	100J		88.6J	30-130		
Surrogate: 2,4,6-TribromophenolJ	162.		µg/LJ	200J		80.8J	15-110J		
Surrogate: p-Terphenyl-d14J	88.2.		µg/LJ	100J		88.2J	30-130		
Surrogate: p-Terphenyl-d14 (low)J	73.3		µg/LJ	100J		73.3J	30-130		
CS Dup (B151856-BS1) L									
					Prepared: 06/20/16 Analyzed: 06/22/16 J				
Acenaphthene (low)J	47.2J	7.5J	µg/LJ	50.0J		94.4J	40-140	7.76J	20J
Acenaphthylene (low)J	49.5J	7.5J	µg/LJ	50.0J		99.0J	40-140	8.15J	20J
AcetophenoneJ	42.1J	10J	µg/LJ	50.0J		84.2J	40-140	13.9J	20J
AnilineJ	35.6J	5.0J	µg/LJ	50.0J		71.1J	40-140	10.6J	20J
Anthracene (low)J	49.2J	5.0J	µg/LJ	50.0J		98.4J	40-140	7.87J	20J
Benzo(a)anthracene (low)J	49.2J	1.2J	µg/LJ	50.0J		98.4J	40-140	7.49J	20J
Benzo(a)pyrene (low)J	54.0J	2.5J	µg/LJ	50.0J		108J	40-140	8.35J	20J
Benzo(b)fluoranthene (low)J	54.8J	1.2J	µg/LJ	50.0J		110J	40-140	8.37J	20J
Benzo(g,h,i)perylene (low)J	48.0J	12J	µg/LJ	50.0J		96.1J	40-140	6.00J	20J
Benzo(k)fluoranthene (low)J	49.9J	5.0J	µg/LJ	50.0J		99.8J	40-140	7.75J	20J
Bis(2-chloroethoxy)methaneJ	44.8J	10J	µg/LJ	50.0J		89.6J	40-140	9.96J	20J
Bis(2-chloroethyl)etherJ	43.6J	10J	µg/LJ	50.0J		87.2J	40-140	11.2J	20J
Bis(2-chloroisopropyl)etherJ	42.0J	10J	µg/LJ	50.0J		83.9J	40-140	11.7J	20J
Bis(2-Ethylhexyl)phthalateJ	51.4J	10J	µg/LJ	50.0J		103J	40-140	8.91J	20J
4-BromophenylphenyletherJ	43.6J	10J	µg/LJ	50.0J		87.2J	40-140	8.86J	20J
ButylbenzylphthalateJ	48.3J	10J	µg/LJ	50.0J		96.7J	40-140	10.5J	20J
4-ChloroanilineJ	37.9J	10J	µg/LJ	50.0J		75.8J	15-140	9.71J	20J
2-ChloronaphthaleneJ	36.8J	10J	µg/LJ	50.0J		73.7J	40-140	11.8J	20J
2-ChlorophenolJ	39.1J	10J	µg/LJ	50.0J		78.2J	30-130	10.1J	20J
Chrysene (low)J	45.2J	5.0J	µg/LJ	50.0J		90.3J	40-140	7.47J	20J

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151856 - SW-846 3510C									
LCS Dup (B151856-BSD1) L									
Prepared: 06/20/16 Analyzed: 06/22/16 J									
Dibenz(a,h)anthracene (low)J	50.2J	5.0J	µg/LJ	50.0J		100J	40-140	6.05J	20J
DibenzofuranJ	45.6J	5.0J	µg/LJ	50.0J		91.3J	40-140	11.9J	20J
Di-n-butylphthalateJ	45.6J	10J	µg/LJ	50.0J		91.1J	40-140	8.96J	20J
1,2-DichlorobenzeneJ	33.8J	5.0J	µg/LJ	50.0J		67.5J	40-140	12.9J	20J
1,3-DichlorobenzeneJ	32.1J	5.0J	µg/LJ	50.0J		64.2J	40-140	11.3J	20J
1,4-DichlorobenzeneJ	33.1J	5.0J	µg/LJ	50.0J		66.2J	40-140	12.7J	20J
3,3-DichlorobenzidineJ	38.3J	10J	µg/LJ	50.0J		76.6J	40-140	13.5J	20J
2,4-DichlorophenolJ	41.6J	10J	µg/LJ	50.0J		83.2J	30-130	10.3J	20J
DiethylphthalateJ	46.9J	10J	µg/LJ	50.0J		93.8J	40-140	10.6J	20J
2,4-DimethylphenolJ	39.9J	10J	µg/LJ	50.0J		79.8J	30-130	11.9J	20J
DimethylphthalateJ	46.6J	10J	µg/LJ	50.0J		93.1J	40-140	11.7J	20J
2,4-DinitrophenolJ	42.5J	10J	µg/LJ	50.0J		85.1J	15-140	9.76J	20J †J
2,4-DinitrotolueneJ	47.0J	10J	µg/LJ	50.0J		94.1J	40-140	15.2J	20J
2,6-DinitrotolueneJ	47.8J	10J	µg/LJ	50.0J		95.6J	40-140	11.1J	20J
Di-n-octylphthalateJ	49.4J	10J	µg/LJ	50.0J		98.7J	40-140	9.75J	20J
1,2-Diphenylhydrazine (as Azobenzene)J	44.1J	10J	µg/LJ	50.0J		88.1J	40-140	7.98J	20J
Fluoranthene (low)J	53.0J	12J	µg/LJ	50.0J		106J	40-140	7.33J	20J
Fluorene (low)J	48.8J	25J	µg/LJ	50.0J		97.5J	40-140	7.17J	20J
HexachlorobenzeneJ	40.0J	10J	µg/LJ	50.0J		79.9J	40-140	7.66J	20J
HexachlorobutadieneJ	34.8J	10J	µg/LJ	50.0J		69.5J	40-140	8.89J	20J
HexachloroethaneJ	34.4J	10J	µg/LJ	50.0J		68.8J	40-140	12.6J	20J
Indeno(1,2,3-cd)pyrene (low)J	50.5J	5.0J	µg/LJ	50.0J		101J	40-140	6.65J	20J
IsophoroneJ	46.1J	10J	µg/LJ	50.0J		92.2J	40-140	11.7J	20J
2-Methylnaphthalene (low)J	45.2J	25J	µg/LJ	50.0J		90.3J	40-140	6.58J	20J
2-MethylphenolJ	39.4J	10J	µg/LJ	50.0J		78.8J	30-130	14.0J	20J
3/4-MethylphenolJ	38.1J	10J	µg/LJ	50.0J		76.2J	30-130	13.8J	20J
Naphthalene (low)J	37.9J	25J	µg/LJ	50.0J		75.8J	40-140	5.49J	20J
NitrobenzeneJ	41.9J	10J	µg/LJ	50.0J		83.7J	40-140	10.6J	20J
2-NitrophenolJ	39.9J	10J	µg/LJ	50.0J		79.8J	30-130	8.14J	20J
4-NitrophenolJ	31.9J	10J	µg/LJ	50.0J		63.9J	15-140	12.7J	20J †J
PentachlorophenolJ	32.5J	10J	µg/LJ	50.0J		65.0J	30-130	5.53J	20J
Phenanthrene (low)J	45.4J	1.2J	µg/LJ	50.0J		90.8J	40-140	7.72J	20J
PhenolJ	22.6J	10J	µg/LJ	50.0J		45.2J	15-140	8.82J	20J †J
Pyrene (low)J	47.7J	25J	µg/LJ	50.0J		95.4J	40-140	6.38J	20J
1,2,4-TrichlorobenzeneJ	35.4J	5.0J	µg/LJ	50.0J		70.8J	40-140	9.34J	20J
2,4,5-TrichlorophenolJ	43.3J	10J	µg/LJ	50.0J		86.6J	30-130	11.8J	20J
2,4,6-TrichlorophenolJ	42.5J	10J	µg/LJ	50.0J		85.0J	30-130	10.4J	20J
Surrogate: 2-FluorophenolJ	116.		µg/LJ	200J		58.1J	15-110J		
Surrogate: Phenol-d6J	84.8.		µg/LJ	200J		42.4J	15-110J		
Surrogate: Nitrobenzene-d5J	88.5.		µg/LJ	100J		88.5J	30-130		
Surrogate: Nitrobenzene-d5 (low)J	84.6.		µg/LJ	100J		84.6J	30-130		
Surrogate: 2-FluorobiphenylJ	89.3.		µg/LJ	100J		89.3J	30-130		
Surrogate: 2-Fluorobiphenyl (low)J	94.0.		µg/LJ	100J		94.0J	30-130		
Surrogate: 2,4,6-TribromophenolJ	173.		µg/LJ	200J		86.5J	15-110J		
Surrogate: p-Terphenyl-d14J	93.0.		µg/LJ	100J		93.0J	30-130		
Surrogate: p-Terphenyl-d14 (low)J	69.6.		µg/LJ	100J		69.6J	30-130		

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B151858 - SW-846 3510CL

Blank (B151858-BLK1) L

Prepared: 06/20/16 Analyzed: 06/21/16 J

Aroclor-1016J	NDJ	0.20J	µg/LJ							
Aroclor-1016 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1221J	NDJ	0.20J	µg/LJ							
Aroclor-1221 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1232J	NDJ	0.20J	µg/LJ							
Aroclor-1232 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1242J	NDJ	0.20J	µg/LJ							
Aroclor-1242 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1248J	NDJ	0.20J	µg/LJ							
Aroclor-1248 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1254J	NDJ	0.20J	µg/LJ							
Aroclor-1254 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1260J	NDJ	0.20J	µg/LJ							
Aroclor-1260 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1262J	NDJ	0.20J	µg/LJ							
Aroclor-1262 [2C]J	NDJ	0.20J	µg/LJ							
Aroclor-1268J	NDJ	0.20J	µg/LJ							
Aroclor-1268 [2C]J	NDJ	0.20J	µg/LJ							
Surrogate: DecachlorobiphenylJ	1.81.		µg/LJ	2.00J		90.5J	30-150J			
Surrogate: Decachlorobiphenyl [2C]J	1.65.		µg/LJ	2.00J		82.4J	30-150J			
Surrogate: Tetrachloro-m-xyleneJ	1.58.		µg/LJ	2.00J		78.8J	30-150J			
Surrogate: Tetrachloro-m-xylene [2C]J	1.47		µg/LJ	2.00J		73.7J	30-150J			

CS (B151858-BS1) L

Prepared: 06/20/16 Analyzed: 06/21/16 J

Aroclor-1016J	0.52J	0.20J	µg/LJ	0.500J		103J	40-140J			
Aroclor-1016 [2C]J	0.49J	0.20J	µg/LJ	0.500J		98.7J	40-140J			
Aroclor-1260J	0.54J	0.20J	µg/LJ	0.500J		108J	40-140J			
Aroclor-1260 [2C]J	0.49J	0.20J	µg/LJ	0.500J		97.6J	40-140J			
Surrogate: DecachlorobiphenylJ	1.82.		µg/LJ	2.00J		91.1J	30-150J			
Surrogate: Decachlorobiphenyl [2C]J	1.66.		µg/LJ	2.00J		83.0J	30-150J			
Surrogate: Tetrachloro-m-xyleneJ	1.58.		µg/LJ	2.00J		78.9J	30-150J			
Surrogate: Tetrachloro-m-xylene [2C]J	1.47		µg/LJ	2.00J		73.7J	30-150J			

CS Dup (B151858-BSD1) L

Prepared: 06/20/16 Analyzed: 06/21/16 J

Aroclor-1016J	0.46J	0.20J	µg/LJ	0.500J		91.1J	40-140J	12.6J	20J	
Aroclor-1016 [2C]J	0.44J	0.20J	µg/LJ	0.500J		87.3J	40-140J	12.3J	20J	
Aroclor-1260J	0.49J	0.20J	µg/LJ	0.500J		98.2J	40-140J	9.12J	20J	
Aroclor-1260 [2C]J	0.45J	0.20J	µg/LJ	0.500J		89.2J	40-140J	8.94J	20J	
Surrogate: DecachlorobiphenylJ	1.75.		µg/LJ	2.00J		87.6J	30-150J			
Surrogate: Decachlorobiphenyl [2C]J	1.59.		µg/LJ	2.00J		79.7J	30-150J			
Surrogate: Tetrachloro-m-xyleneJ	1.36.		µg/LJ	2.00J		67.8J	30-150J			
Surrogate: Tetrachloro-m-xylene [2C]J	1.27.		µg/LJ	2.00J		63.4J	30-150J			

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QUALITY CONTROL
Metals Analyses (Total) - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B151887 - SW-846 7470A PrepL
Blank (B151887-BLK1) L

Prepared & Analyzed: 06/21/16 J

MercuryJ	ND	0.00010J	mg/LJ
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CS (B151887-BS1) L

Prepared & Analyzed: 06/21/16 J

MercuryJ	0.00196	0.00010J	mg/LJ	0.00200J	97.9J	80-120J
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CS Dup (B151887-BSD1) L

Prepared & Analyzed: 06/21/16 J

MercuryJ	0.00205J	0.00010J	mg/LJ	0.00200J	103J	80-120J	4.64J	20J
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Batch B151919 - SW-846 3005AL
Blank (B151919-BLK1) L

Prepared: 06/21/16 Analyzed: 06/22/16 J

AntimonyJ	NDJ	1.0J	µg/LJ
ArsenicJ	NDJ	0.40J	µg/LJ
BariumJ	NDJ	10J	µg/LJ
BerylliumJ	NDJ	0.40J	µg/LJ
CadmiumJ	NDJ	0.50J	µg/LJ
ChromiumJ	NDJ	1.0J	µg/LJ
LeadJ	NDJ	1.0J	µg/LJ
NickelJ	NDJ	5.0J	µg/LJ
SeleniumJ	NDJ	5.0J	µg/LJ
SilverJ	NDJ	0.50J	µg/LJ
ThalliumJ	NDJ	0.20J	µg/LJ
VanadiumJ	NDJ	5.0J	µg/LJ
ZincJ	ND	10J	µg/LJ

CS (B151919-BS1) L

Prepared: 06/21/16 Analyzed: 06/22/16 J

AntimonyJ	532J	10J	µg/LJ	500J	106J	80-120J
ArsenicJ	511J	4.0J	µg/LJ	500J	102J	80-120J
BariumJ	513J	100J	µg/LJ	500J	103J	80-120J
BerylliumJ	505J	4.0J	µg/LJ	500J	101J	80-120J
CadmiumJ	513J	5.0J	µg/LJ	500J	103J	80-120J
ChromiumJ	505J	10J	µg/LJ	500J	101J	80-120J
LeadJ	520J	10J	µg/LJ	500J	104J	80-120J
NickelJ	501J	50J	µg/LJ	500J	100J	80-120J
SeleniumJ	508J	50J	µg/LJ	500J	102J	80-120J
SilverJ	497J	5.0J	µg/LJ	500J	99.4J	80-120J
ThalliumJ	499J	2.0J	µg/LJ	500J	99.8J	80-120J
VanadiumJ	508J	50J	µg/LJ	500J	102J	80-120J
ZincJ	507	100J	µg/LJ	500J	101J	80-120J

CS Dup (B151919-BSD1) L

Prepared: 06/21/16 Analyzed: 06/22/16 J

AntimonyJ	531J	10J	µg/LJ	500J	106J	80-120J	0.293J	20J
ArsenicJ	508J	4.0J	µg/LJ	500J	102J	80-120J	0.648J	20J
BariumJ	513J	100J	µg/LJ	500J	103J	80-120J	0.0230J	20J
BerylliumJ	505J	4.0J	µg/LJ	500J	101J	80-120J	0.0733J	20J
CadmiumJ	511J	5.0J	µg/LJ	500J	102J	80-120J	0.351J	20J
ChromiumJ	506J	10J	µg/LJ	500J	101J	80-120J	0.307J	20J
LeadJ	520J	10J	µg/LJ	500J	104J	80-120J	0.0423J	20J
NickelJ	503J	50J	µg/LJ	500J	101J	80-120J	0.278J	20J
SeleniumJ	509J	50J	µg/LJ	500J	102J	80-120J	0.0670J	20J
SilverJ	494J	5.0J	µg/LJ	500J	98.8J	80-120J	0.545J	20J
ThalliumJ	502J	2.0J	µg/LJ	500J	100J	80-120J	0.481J	20J
VanadiumJ	509J	50J	µg/LJ	500J	102J	80-120J	0.194J	20J
ZincJ	510J	100J	µg/LJ	500J	102J	80-120J	0.690J	20J

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QUALITY CONTROL
Metals Analyses (Total) - Quality Control

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B151919 - SW-846 3005AL
Duplicate (B151919-DUP1) L
Source: 16F1019-01L

Prepared: 06/21/16 Analyzed: 06/22/16 J

AntimonyJ	NDJ	1.0J	µg/LJ		NDJ			NCJ	20J	
ArsenicJ	NDJ	0.40J	µg/LJ		NDJ			NCJ	20J	
BariumJ	96.6J	10J	µg/LJ		95.7J			0.976J	20J	
BerylliumJ	NDJ	0.40J	µg/LJ		NDJ			NCJ	20J	
CadmiumJ	NDJ	0.50J	µg/LJ		NDJ			NCJ	20J	
ChromiumJ	2.55J	1.0J	µg/LJ		2.50J			1.87J	20J	
LeadJ	1.84J	1.0J	µg/LJ		1.81J			1.57J	20J	
NickelJ	7.69J	5.0J	µg/LJ		7.42J			3.55J	20J	
SeleniumJ	NDJ	5.0J	µg/LJ		NDJ			NCJ	20J	
SilverJ	NDJ	0.50J	µg/LJ		NDJ			NCJ	20J	
ThalliumJ	NDJ	0.20J	µg/LJ		NDJ			NCJ	20J	
VanadiumJ	NDJ	5.0J	µg/LJ		NDJ			NCJ	20J	
ZincJ	12.0J	10J	µg/LJ		11.3J			5.46J	20J	

Matrix Spike (B151919-MS1) L
Source: 16F1019-01L

Prepared: 06/21/16 Analyzed: 06/22/16 J

AntimonyJ	534J	10J	µg/LJ	500J	NDJ	107J	75-125J			
ArsenicJ	515J	4.0J	µg/LJ	500J	NDJ	103J	75-125J			
BariumJ	606J	100J	µg/LJ	500J	95.7J	102J	75-125J			
BerylliumJ	499J	4.0J	µg/LJ	500J	NDJ	99.9J	75-125J			
CadmiumJ	494J	5.0J	µg/LJ	500J	0.0909J	98.9J	75-125J			
ChromiumJ	510J	10J	µg/LJ	500J	2.50J	102J	75-125J			
LeadJ	535J	10J	µg/LJ	500J	1.81J	107J	75-125J			
NickelJ	504J	50J	µg/LJ	500J	7.42J	99.4J	75-125J			
SeleniumJ	496J	50J	µg/LJ	500J	NDJ	99.1J	75-125J			
SilverJ	480J	5.0J	µg/LJ	500J	NDJ	96.0J	75-125J			
ThalliumJ	508J	2.0J	µg/LJ	500J	NDJ	102J	75-125J			
VanadiumJ	526J	50J	µg/LJ	500J	NDJ	105J	75-125J			
ZincJ	495J	100J	µg/LJ	500J	11.3J	99.0J	75-125J			

Batch B152007 - SW-846 3005AL
Blank (B152007-BLK1) L

Prepared: 06/22/16 Analyzed: 06/23/16 J

HardnessJ	NDJ	3.0J	mg/LJ							
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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control.

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151868 - SM21-22 3500 Cr BL										
Blank (B151868-BLK1) L				Prepared & Analyzed: 06/20/16 J						
Hexavalent ChromiumJ	ND	0.0040	mg/L							
LCS (B151868-BS1) L				Prepared & Analyzed: 06/20/16 J						
Hexavalent ChromiumJ	0.096	0.0040	mg/L	0.100J		95.8J	89.1-114J			
CS Dup (B151868-BSD1) L				Prepared & Analyzed: 06/20/16 J						
Hexavalent ChromiumJ	0.098J	0.0040	mg/L	0.100J		98.3J	89.1-114J	2.59J	7.19J	
Duplicate (B151868-DUP1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/20/16 J				
Hexavalent ChromiumJ	NDJ	0.0040	mg/L		NDJ			NCJ	20J	
Matrix Spike (B151868-MS1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/20/16 J				
Hexavalent ChromiumJ	0.095J	0.0040	mg/L	0.100J	NDJ	94.6	39-148			
Matrix Spike Dup (B151868-MSD1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/20/16 J				
Hexavalent ChromiumJ	0.097J	0.0040	mg/L	0.100J	NDJ	97.1	39-148	2.62J	9.35J	
Batch B151893 - EPA 1664BL										
Blank (B151893-BLK1) L				Prepared & Analyzed: 06/21/16 J						
Silica Gel Treated HEM (SGT-HEM)J	ND	1.4	mg/L							
LCS (B151893-BS1) L				Prepared & Analyzed: 06/21/16 J						
Silica Gel Treated HEM (SGT-HEM)J	13J		mg/L	10.0J		130J	64-132			
Duplicate (B151893-DUP1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/21/16 J				
Silica Gel Treated HEM (SGT-HEM)J	NDJ	1.6	mg/L		NDJ			NCJ	18J	
Matrix Spike (B151893-MS1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/21/16 J				
Silica Gel Treated HEM (SGT-HEM)J	98J	14	mg/L	100J	NDJ	98.0	64-132			
Batch B151894 - SM21-22 4500 H B										
LCS (B151894-BS1) L				Prepared & Analyzed: 06/20/16 J						
pHJ	6.05J		pH Units	6.00J		101J	98.5-110J			
Duplicate (B151894-DUP1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/20/16 J				
pHJ	6.4J		pH Units		6.3J			0.629J	5J	H-05J
Batch B151896 - EPA 420.1L										
Blank (B151896-BLK1) L				Prepared: 06/21/16 Analyzed: 06/22/16 J						
PhenoJ	NDJ	0.050	mg/L							

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151896 - EPA 420.1										
LCS (B151896-BS1) L				Prepared: 06/21/16 Analyzed: 06/22/16 J						
PhenolJ	0.46	0.050J	mg/LJ	0.500J		91.0J	78.8-123			
CS Dup (B151896-BSD1) L				Prepared: 06/21/16 Analyzed: 06/22/16 J						
PhenolJ	0.45J	0.050J	mg/LJ	0.500J		89.5J	78.8-123	1.70J	11.3J	
Batch B151897 - SM21-22 2540DL										
Blank (B151897-BLK1) L				Prepared & Analyzed: 06/21/16 J						
Total Suspended SolidsJ	ND	2.5J	mg/LJ							
CS (B151897-BS1) L				Prepared & Analyzed: 06/21/16 J						
Total Suspended SolidsJ	204J	10J	mg/LJ	200J		102J	70.1-116J			
Batch B151911 - SM21-22 4500 CL GL										
Blank (B151911-BLK1) L				Prepared & Analyzed: 06/21/16 J						
Chlorine, ResidualJ	ND	0.020J	mg/LJ							
LCS (B151911-BS1) L				Prepared & Analyzed: 06/21/16 J						
Chlorine, ResidualJ	1.4	0.020J	mg/LJ	1.20J		117J	88.1-128J			
LCS Dup (B151911-BSD1) L				Prepared & Analyzed: 06/21/16 J						
Chlorine, ResidualJ	1.3J	0.020J	mg/LJ	1.20J		112J	88.1-128J	3.74J	5J	
Duplicate (B151911-DUP1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/21/16 J				
Chlorine, ResidualJ	NDJ	0.020	mg/L		NDJ			NCJ	47.3J	
Matrix Spike (B151911-MS1) L				Source: 16F1019-02L		Prepared & Analyzed: 06/21/16 J				
Chlorine, ResidualJ	1.1J	0.020	mg/L	1.00J	NDJ	110J	10-170J			
Batch B151912 - SM21-22 4500 CN EL										
Blank (B151912-BLK1) L				Prepared & Analyzed: 06/21/16 J						
CyanideJ	ND	0.010J	mg/LJ							
CS (B151912-BS1) L				Prepared & Analyzed: 06/21/16 J						
CyanideJ	0.68	0.010J	mg/LJ	0.736J		92.7J	78.4-112J			
CS Dup (B151912-BSD1) L				Prepared & Analyzed: 06/21/16 J						
CyanideJ	0.68J	0.010J	mg/LJ	0.736J		91.8J	78.4-112J	0.929J	5.14J	

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/PHA/SW-846 Methods (Total) - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B151912 - SM21-22 4500 CN EL										
Matrix Spike (B151912-MS1) L		Source: 16F1019-02L		Prepared & Analyzed: 06/21/16 J						
CyanideJ	0.34J	0.010J	mg/L	0.346J	NDJ	98.7	64.3-122J			
Matrix Spike Dup (B151912-MSD1) L		Source: 16F1019-02L		Prepared & Analyzed: 06/21/16 J						
CyanideJ	0.35J	0.010J	mg/L	0.346J	NDJ	102	64.3-122J	2.84J	14.1J	
Batch B151981 - SM21-22 4500 CL BL										
Blank (B151981-BLK1) L		Prepared & Analyzed: 06/21/16 J								
ChlorideJ	ND	1.0	mg/L							
LCS (B151981-BS1) L		Prepared & Analyzed: 06/21/16 J								
ChlorideJ	11	1.0J	mg/L	10.6J		107	87.5-112J			
CS Dup (B151981-BSD1) L		Prepared & Analyzed: 06/21/16 J								
ChlorideJ	11J	1.0J	mg/L	10.6J		107	87.5-112J	0.00J	8.07J	
Batch B152004 - SM21-22 2540BL										
Blank (B152004-BLK1) L		Prepared & Analyzed: 06/22/16 J								
Total SolidsJ	ND	10	mg/L							
LCS (B152004-BS1) L		Prepared & Analyzed: 06/22/16 J								
Total SolidsJ	188J	10J	mg/L	200J		94.0	65.3-127J			
Batch B152032 - SM21-22 2510BL										
Blank (B152032-BLK1) L		Prepared & Analyzed: 06/22/16 J								
Specific conductanceJ	ND	2.0	µmhos/cm							
LCS (B152032-BS1) L		Prepared & Analyzed: 06/22/16 J								
Specific conductanceJ	220J		µmhos/cmJ	234J		95.3	90.6-110J			
Duplicate (B152032-DUP1) L		Source: 16F1019-01L		Prepared & Analyzed: 06/22/16 J						
Specific conductanceJ	1800J	2.0	µmhos/cm		1800J			0.105J	14.4J	
Batch B152098 - SM21-22 2320BL										
Blank (B152098-BLK1) L		Prepared & Analyzed: 06/22/16 J								
AlkalinityJ	NDJ	1.0	mg/L							

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality ControlL

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
Batch B152098 - SM21-22 2320B										
LCS (B152098-BS1) L				Prepared & Analyzed: 06/22/16 J						
AlkalinityJ	26		mg/LJ	27.8J		94.4J	85.7-110J			
CS Dup (B152098-BSD1) L				Prepared & Analyzed: 06/22/16 J						
AlkalinityJ	26J		mg/LJ	27.8J		94.4J	85.7-110J	0.00J	6.6J	
Duplicate (B152098-DUP2) L				Prepared & Analyzed: 06/22/16 J						
AlkalinityJ	58J	1.0	mg/L		58J			0.00J	9.44J	
Matrix Spike (B152098-MS2) L				Prepared & Analyzed: 06/22/16 J						
AlkalinityJ	99J	1.0	mg/L	50.0J	50J	96.6	79-114J			
Batch B152136 - SM19-22 4500 NH3 CL										
Blank (B152136-BLK1) L				Prepared & Analyzed: 06/23/16 J						
Ammonia as NJ	ND	0.30J	mg/LJ							
CS (B152136-BS1) L				Prepared & Analyzed: 06/23/16 J						
Ammonia as NJ	4.7	0.30J	mg/LJ	5.00J		94.0J	82.1-110J			
CS Dup (B152136-BSD1) L				Prepared & Analyzed: 06/23/16 J						
Ammonia as NJ	5.3J	0.30J	mg/LJ	5.00J		106J	82.1-110J	11.8L *J	7.33J	R-01J
Duplicate (B152136-DUP1) L				Prepared & Analyzed: 06/23/16 J						
Ammonia as NJ	NDJ	0.30	mg/L		NDJ			NCJ	24.8J	
Matrix Spike (B152136-MS1) L				Prepared & Analyzed: 06/23/16 J						
Ammonia as NJ	1.8J	0.30	mg/L	2.00J	0.29J	73.5	67.6-125J			

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

AnalyteJ	ResultJ	ReportingJ LimitJ	UnitsJ	SpikeJ LevelJ	SourceJ ResultJ	%RECJ	%RECJ LimitsJ	RPDJ	RPDJ LimitJ	Notes J
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Batch B152006 - SM21-22 2540CL
Blank (B152006-BLK1) L

Prepared & Analyzed: 06/22/16 J

Total Dissolved SolidsJ ND 10J mg/LJ

CS (B152006-BS1) L

Prepared & Analyzed: 06/22/16 J

Total Dissolved SolidsJ 280J 10J mg/LJ 293J 95.6J 58.2-116J

Duplicate (B152006-DUP1) L
Source: 16F1019-01L

Prepared & Analyzed: 06/22/16 J

Total Dissolved SolidsJ 1200J 10 mg/L 1100J **6.44L *J** 5J R-02J

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082AE

LCSE

Lab Sample ID: B151858-BS1 Date(s) Analyzed: 06/21/2016 06/21/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RTE	RT WINDOW		CONCENTRATION	%DE
			FROM	TO		
Aroclor-1016	1E	0.00E	0.00E	0.00E	0.52E	
	2E	0.00E	0.00E	0.00E	0.49E	5E
Aroclor-1260	1E	0.00E	0.00E	0.00E	0.54E	
	2E	0.00E	0.00E	0.00E	0.49E	9E

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082AE

LCS DupE

Lab Sample ID:E B151858-BSD1E Date(s) Analyzed:E 06/21/2016E 06/21/2016E

Instrument ID (1):E Instrument ID (2):E

GC Column (1):E ID:E (mm)E GC Column (2):E ID:E (mm)

ANALYTE	COLE	RTE	RT WINDOWE		CONCENTRATIONE	%DE
			FROME	TOE		
Aroclor-1016E	1E	0.00E	0.00E	0.00E	0.46E	
	2E	0.00E	0.00E	0.00E	0.44E	4E
Aroclor-1260E	1E	0.00E	0.00E	0.00E	0.49E	
	2E	0.00E	0.00E	0.00E	0.45E	9E

FLAG/QUALIFIER SUMMARY

*J	QC result is outside of established limits.J
†J	Wide recovery limits established for difficult compound.J
‡J	Wide RPD limits established for difficult compound.J
#J	Data exceeded client recommended or regulatory level J
NDJ	Not DetectedJ
RLJ	Reporting LimitJ
DLJ	Method Detection LimitJ
MCLJ	Maximum Contaminant LevelJ
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the J calculation which have not been rounded.J
	No results have been blank subtracted unless specified in the case narrative section.J
H-05J	Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 J minute holding time was exceeded.J
L-02J	Laboratory fortified blank/laboratory control sample recovery and duplicate recoveries outside of control limits. J Data validation is not affected since all results are "not detected" for associated samples in this batch and bias is J on the high side.J
L-07J	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but J the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.J
L-07AJ	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but J the other is within limits. RPD outside of control limits. Reduced precision anticipated for any reported result for J this compound.J
L-14J	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet J 70-130% criteria but does meet difficult compound criteria.J
R-01J	Duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result.J
R-02J	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered J during sample prep.J
R-05J	Laboratory fortified blank duplicate RPD is outside of control limits. Reduced precision is anticipated for any J reported value for this compound.J
RL-07J	Elevated reporting limit based on lowest point in calibration.J MA CAM reporting limit not met.J
V-05J	Continuing calibration did not meet method specifications and was biased on the low side for this compound. J Increased uncertainty is associated with the reported value which is likely to be biased on the low side.J
V-16J	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may J be associated with reported result.J
V-20J	Continuing calibration did not meet method specifications and was biased on the high side. Data validation is not J affected since sample result was "not detected" for this compound.J

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 420.1 in Water</i>	
Phenol	CT,MA,NH,NY,RI,NC,ME,VAJ
<i>SM 5310C in Water</i>	
Total Organic Carbon	NY,NC,CT,RI,ME,MA,VAJ
<i>SM 19-22 4500 NH3 C in Water</i>	
Ammonia as N	NY,MA,CT,RI,VA,NC,MEJ
<i>SM 21-22 2320B in Water</i>	
Alkalinity	CT,MA,NH,NY,RI,NC,ME,VAJ
<i>SM 21-22 2340B in Water</i>	
Hardness	CT,MA,NH,NYJ
<i>SM 21-22 2510B in Water</i>	
Specific conductance	CT,MA,NH,NY,RI,NC,ME,VAJ
<i>SM 21-22 2540B in Water</i>	
Total Solids	NY,CT,RI,NH,NC,ME,VAJ
<i>SM 21-22 2540C in Water</i>	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VAJ
<i>SM 21-22 2540D in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VAJ
<i>SM 21-22 3500 Cr B in Water</i>	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NCJ
<i>SM 21-22 4500 CL B in Water</i>	
Chloride	NH,CT,MA,NY,RI,NC,ME,VAJ
<i>SM 21-22 4500 CL G in Water</i>	
Chlorine, Residual	CT,MA,RI,MEJ
<i>SM 21-22 4500 CN E in Water</i>	
Cyanide	CT,MA,NH,NY,RI,NC,ME,VAJ
<i>SM 21-22 4500 H B in Water</i>	
pH	CT,MA,RIJ
<i>SW-846 6020A-B in Water</i>	
Antimony	CT,NH,NY,ME,VA,NCJ
Arsenic	CT,NH,NY,ME,VA,NCJ
Barium	CT,NH,NY,ME,VA,NCJ
Beryllium	CT,NH,NY,ME,VA,NCJ
Cadmium	CT,NH,NY,RI,ME,VA,NCJ
Chromium	CT,NH,NY,ME,VA,NCJ
Lead	CT,NH,NY,ME,VA,NCJ
Nickel	CT,NH,NY,ME,VA,NCJ
Selenium	CT,NH,NY,ME,VA,NCJ
Silver	CT,NH,NY,ME,VA,NCJ
Thallium	CT,NH,NY,ME,VA,NCJ
Vanadium	CT,NH,NY,ME,VA,NCJ
Zinc	CT,NH,NY,ME,VA,NCJ
<i>SW-846 7470A in Water</i>	

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
SW-846 7470A in Water	
MercuryJ	CT,NH,NY,NC,ME,VAJ
SW-846 8082A in Water	
Aroclor-1016J	CT,NH,NY,NC,ME,VAJ
Aroclor-1016 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1221J	CT,NH,NY,NC,ME,VAJ
Aroclor-1221 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1232J	CT,NH,NY,NC,ME,VAJ
Aroclor-1232 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1242J	CT,NH,NY,NC,ME,VAJ
Aroclor-1242 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1248J	CT,NH,NY,NC,ME,VAJ
Aroclor-1248 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1254J	CT,NH,NY,NC,ME,VAJ
Aroclor-1254 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1260J	CT,NH,NY,NC,ME,VAJ
Aroclor-1260 [2C]J	CT,NH,NY,NC,ME,VAJ
Aroclor-1262J	NH,NY,NC,ME,VAJ
Aroclor-1262 [2C]J	NH,NY,NC,ME,VAJ
Aroclor-1268J	NH,NY,NC,ME,VAJ
Aroclor-1268 [2C]J	NH,NY,NC,ME,VAJ
SW-846 8260C in Water	
AcetoneJ	CT,NH,NY,MEJ
tert-Amyl Methyl Ether (TAME)J	NH,NY,MEJ
BenzeneJ	CT,NH,NY,MEJ
BromobenzeneJ	MEJ
BromochloromethaneJ	NH,NY,MEJ
BromodichloromethaneJ	CT,NH,NY,MEJ
BromoformJ	CT,NH,NY,MEJ
BromomethaneJ	CT,NH,NY,MEJ
2-Butanone (MEK)J	CT,NH,NY,MEJ
n-ButylbenzeneJ	NY,MEJ
sec-ButylbenzeneJ	NY,MEJ
tert-ButylbenzeneJ	NY,MEJ
tert-Butyl Ethyl Ether (TBEE)J	NH,NY,MEJ
Carbon DisulfideJ	CT,NH,NY,MEJ
Carbon TetrachlorideJ	CT,NH,NY,MEJ
ChlorobenzeneJ	CT,NH,NY,MEJ
ChlorodibromomethaneJ	CT,NH,NY,MEJ
ChloroethaneJ	CT,NH,NY,MEJ
ChloroformJ	CT,NH,NY,MEJ
ChloromethaneJ	CT,NH,NY,MEJ
2-ChlorotolueneJ	NY,MEJ
4-ChlorotolueneJ	NY,MEJ
DibromomethaneJ	NH,NY,MEJ
1,2-DichlorobenzeneJ	CT,NY,MEJ
1,3-DichlorobenzeneJ	CT,NH,NY,MEJ

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
SW-846 8260C in Water	
1,4-DichlorobenzeneJ	CT,NH,NY,MEJ
Dichlorodifluoromethane (Freon 12)J	NH,NY,MEJ
1,1-DichloroethaneJ	CT,NH,NY,MEJ
1,2-DichloroethaneJ	CT,NH,NY,MEJ
1,1-DichloroethyleneJ	CT,NH,NY,MEJ
cis-1,2-DichloroethyleneJ	NY,MEJ
trans-1,2-DichloroethyleneJ	CT,NH,NY,MEJ
1,2-DichloropropaneJ	CT,NH,NY,MEJ
1,3-DichloropropaneJ	NY,MEJ
2,2-DichloropropaneJ	NH,NY,MEJ
1,1-DichloropropeneJ	NH,NY,MEJ
cis-1,3-DichloropropeneJ	CT,NH,NY,MEJ
trans-1,3-DichloropropeneJ	CT,NH,NY,MEJ
Diisopropyl Ether (DIPE)J	NH,NY,MEJ
EthylbenzeneJ	CT,NH,NY,MEJ
HexachlorobutadieneJ	CT,NH,NY,MEJ
2-Hexanone (MBK)J	CT,NH,NY,MEJ
Isopropylbenzene (Cumene)J	NY,MEJ
p-Isopropyltoluene (p-Cymene)J	CT,NH,NY,MEJ
Methyl tert-Butyl Ether (MTBE)J	CT,NH,NY,MEJ
Methylene ChlorideJ	CT,NH,NY,MEJ
4-Methyl-2-pentanone (MIBK)J	CT,NH,NY,MEJ
NaphthaleneJ	NH,NY,MEJ
n-PropylbenzeneJ	CT,NH,NY,MEJ
StyreneJ	CT,NH,NY,MEJ
1,1,1,2-TetrachloroethaneJ	CT,NH,NY,MEJ
1,1,2,2-TetrachloroethaneJ	CT,NH,NY,MEJ
TetrachloroethyleneJ	CT,NH,NY,MEJ
TolueneJ	CT,NH,NY,MEJ
1,2,3-TrichlorobenzeneJ	NH,NY,MEJ
1,2,4-TrichlorobenzeneJ	CT,NH,NY,MEJ
1,1,1-TrichloroethaneJ	CT,NH,NY,MEJ
1,1,2-TrichloroethaneJ	CT,NH,NY,MEJ
TrichloroethyleneJ	CT,NH,NY,MEJ
Trichlorofluoromethane (Freon 11)J	CT,NH,NY,MEJ
1,2,3-TrichloropropaneJ	NH,NY,MEJ
1,2,4-TrimethylbenzeneJ	NY,MEJ
1,3,5-TrimethylbenzeneJ	NY,MEJ
Vinyl ChlorideJ	CT,NH,NY,MEJ
m+p XyleneJ	CT,NH,NY,MEJ
o-XyleneJ	CT,NH,NY,MEJ
SW-846 8270D in Water	
AnilineJ	CT,NYJ
Bis(2-chloroethoxy)methaneJ	CT,NY,NHJ
Bis(2-chloroethyl)etherJ	CT,NY,NHJ
Bis(2-chloroisopropyl)etherJ	CT,NY,NHJ

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270D in Water</i>	
Bis(2-Ethylhexyl)phthalateJ	CT,NY,NHJ
4-BromophenylphenyletherJ	CT,NY,NHJ
ButylbenzylphthalateJ	CT,NY,NHJ
4-ChloroanilineJ	CT,NY,NHJ
2-ChloronaphthaleneJ	CT,NY,NHJ
2-ChlorophenolJ	CT,NY,NHJ
DibenzofuranJ	CT,NY,NHJ
Di-n-butylphthalateJ	CT,NY,NHJ
1,2-DichlorobenzeneJ	CT,NY,NHJ
1,3-DichlorobenzeneJ	CT,NY,NHJ
1,4-DichlorobenzeneJ	CT,NY,NHJ
3,3-DichlorobenzidineJ	CT,NY,NHJ
2,4-DichlorophenolJ	CT,NY,NHJ
DiethylphthalateJ	CT,NY,NHJ
2,4-DimethylphenolJ	CT,NY,NHJ
DimethylphthalateJ	CT,NY,NHJ
2,4-DinitrophenolJ	CT,NY,NHJ
2,4-DinitrotolueneJ	CT,NY,NHJ
2,6-DinitrotolueneJ	CT,NY,NHJ
Di-n-octylphthalateJ	CT,NY,NHJ
HexachlorobenzeneJ	CT,NY,NHJ
HexachlorobutadieneJ	CT,NY,NHJ
HexachloroethaneJ	CT,NY,NHJ
IsophoroneJ	CT,NY,NHJ
2-MethylphenolJ	CT,NY,NHJ
3/4-MethylphenolJ	CT,NY,NHJ
NaphthaleneJ	CT,NY,NHJ
NitrobenzeneJ	CT,NY,NHJ
2-NitrophenolJ	CT,NY,NHJ
4-NitrophenolJ	CT,NY,NHJ
PentachlorophenolJ	CT,NY,NHJ
PhenolJ	CT,NY,NHJ
1,2,4-TrichlorobenzeneJ	CT,NY,NHJ
2,4,5-TrichlorophenolJ	CT,NY,NHJ
2,4,6-TrichlorophenolJ	CT,NY,NHJ

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

CodeJ	DescriptionJ	NumberJ	ExpiresJ
AIHAJ	AIHA-LAP, LLCJ	100033J	02/1/2018J
MAJ	Massachusetts DEPJ	M-MA100J	06/30/2016J
CTJ	Connecticut Department of Public Health	PH-0567J	09/30/2017J
NYJ	New York State Department of Health	10899 NELAPJ	04/1/2017J
NH-SJ	New Hampshire Environmental LabJ	2516 NELAPJ	02/5/2017J
RIJ	Rhode Island Department of Health	LAO00112J	12/30/2016J
NCJ	North Carolina Div. of Water QualityJ	652J	12/31/2016J
NJ	New Jersey DEPJ	MA007 NELAPJ	06/30/2016J
FLJ	Florida Department of Health	E871027 NELAPJ	06/30/2017J
VTJ	Vermont Department of Health Lead LaboratoryJ	LL015036J	07/30/2016J
MEJ	State of MaineJ	2011028J	06/9/2017J
VAJ	Commonwealth of VirginiaJ	460217J	12/14/2016J
NH-PJ	New Hampshire Environmental LabJ	2557 NELAPJ	09/6/2016J

From: [Dean S. Bebis](#)
To: igeorgantas@contestlabs.com; [Michael E. Martin](#); [Kerri C. Lewis](#)
Subject: FW: COC & bottle discrepancy : 16F1019_COC_01.pdf
Date: Tuesday, June 21, 2016 10:18:27 AM

Jim,

See below from Kerri.

-----Original Message-----

From: Kerri C. Lewis
Sent: Tuesday, June 21, 2016 10:17 AM
To: Dean S. Bebis <DSBebis@tighebond.com>
Subject: RE: COC & bottle discrepancy : 16F1019_COC_01.pdf

I apologize for that. The times on the COC are correct.

-----Original Message-----

From: Dean S. Bebis
Sent: Tuesday, June 21, 2016 10:16 AM
To: Kerri C. Lewis <KCLewis@tighebond.com>; Michael E. Martin <MEMartin@tigheBond.com>
Subject: FW: COC & bottle discrepancy : 16F1019_COC_01.pdf

Kerri,

FYI. Please advise

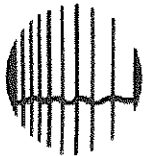
-----Original Message-----

From: Jim Georgantas [<mailto:igeorgantas@contestlabs.com>]
Sent: Tuesday, June 21, 2016 10:17 AM
To: Michael E. Martin <MEMartin@tigheBond.com>; Dean S. Bebis <DSBebis@tighebond.com>
Subject: COC & bottle discrepancy : 16F1019_COC_01.pdf

Hi Mike/Dean,

The times on the bottles and labels are switched for the attached COC. Can you please let me know which one is correct to use in the final report?

Thanks
Jim



con-test
ANALYTICAL LABORATORY

Phone: 413-525-2332

Fax: 413-525-6405

Email: info@contestlabs.com

www.contestlabs.com

CHAIN OF CUSTODY RECORD

Rev 04.05.12

39 Spruce Street
East longmeadow, MA 01028

Page 1 of 1

Company Name: NSTAR/EnvSource

Telephone: (339) 987-7029

Address: One NSTAR WAY

Project # IV-1023-18

Westwood, MA 02090

Client PO#

Attention: Mike Zylich

DATA DELIVERY (check all that apply)

☐ FAX ☒ EMAIL ☐ WEBSITE

Project Location: Station 315 Goodenough St.

Fax #

Sampled By: KCL

Email: MEMartin@Tighebond.com

Format:

☒ PDF ☒ EXCEL ☐ GIS

☐ OTHER

☐ "Enhanced Data Package"

Project Proposal Provided? (for billing purposes)

☐ yes ☐ no proposal date

Con-Test Lab ID (laboratory use only)	Client Sample ID / Description	Collection		Composite	Grab	*Matrix Code	Conc Code	ANALYSIS REQUESTED											
		Beginning Date/Time	Ending Date/Time					PCBs	VOCs	SVOCs	Total phenols	Total cyanide	Hex chrom	Total RCP metals	TSS TPC (chloride, pH)	TPH - oil + grease	TSS	Pentachlorophenol	
	RGP-1 (UF)	1200																	
	RGP-1 (CF)	1200																	
01	RGP-2 (UF)	1200			X	6W		X	X	X	X	X	X	X	X	X	X	X	
02	RGP-2 (CF)	1300			X	6W		X	X	X	X	X	X	X	X	X	X	X	

Alkalinity, hardness, pH, specific conductance, dissolved oxygen, total solid, TDS, ammonia, Mercury, Chromium, Total organic carbon. added to both samples on 6/21/16 by client - JMG

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:

Turnaround ^{††}

☐ 7-Day

☐ 10-Day

☐ Other

RUSH [†]

☐ 24-Hr ☒ 48-Hr

☐ 72-Hr ☐ 4-Day

☐ Require lab approval

Detection Limit Requirements

Massachusetts:

ARM

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 INCORRECT, TURNAROUND TIME WILL NOT START UNTIL ALL QUESTIONS ARE ANSWERED BY OUR CLIENT.

PLEASE BE CAREFUL NOT TO CONTAMINATE THIS DOCUMENT

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com



Page 1 of 2

Sample Receipt Checklist

CLIENT NAME: NSTAR RECEIVED BY: JDL DATE: 6/20/16

- 1) Was the chain(s) of custody relinquished and signed? Yes X No No CQC Incl.
- 2) Does the chain agree with the samples? Yes No X
If not, explain: RGP-2(F) containers timed 1200
- 3) Are all the samples in good condition? Yes No X RGP-2(UF) 1300
If not, explain: RGP-2(UF) phonols unlabeled.
- 4) How were the samples received:

On Ice X Direct from Sampling Ambient In Cooler(s) X

Were the samples received in Temperature Compliance of (2-6°C)? Yes X No N/A

Temperature °C by Temp blank Temperature °C by Temp gun 4.1

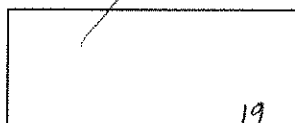
- 5) Are there Dissolved samples for the lab to filter? Yes No X

Who was notified Date Time

- 6) Are there any RUSH or SHORT HOLDING TIME samples? Yes X No

Who was notified Amber Date 6/20 Time 1635

- 7) Location where samples are stored:



Permission to subcontract samples? Yes No
(Walk-in clients only) if not already approved
Client Signature:

- 8) Do all samples have the proper Acid pH: Yes X No N/A

- 9) Do all samples have the proper Base pH: Yes X No N/A

- 10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes N/A X

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	<u>16</u>	16 oz amber	
500 mL Amber	<u>2</u>	8 oz amber/clear jar	
250 mL Amber (8oz amber)	<u>2</u>	4 oz amber/clear jar	
1 Liter Plastic	<u>2</u>	2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic	<u>10</u>	SOC Kit	
40 mL Vial - type listed below	<u>6</u>	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle	<u>2</u>	Other glass jar	
Encore		Other	

40 mL vials: # HCl 6 # Methanol

Time and Date Frozen:

Doc# 277 # Bisulfate # DI Water

Rev. 4 August 2013 # Thiosulfate Unpreserved

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False)	Comment
	T/F/NA	
1) The cooler's custody seal, if present, is intact.	NA	
2) The cooler or samples do not appear to have been compromised or tampered with.	T	
3) Samples were received on ice.	T	
4) Cooler Temperature is acceptable.	T	
5) Cooler Temperature is recorded.	T	
6) COC is filled out in ink and legible.	T	
7) COC is filled out with all pertinent information.	T	
8) Field Sampler's name present on COC.	T	
9) There are no discrepancies between the sample IDs on the container and the COC.	T	
10) Samples are received within Holding Time.	T	
11) Sample containers have legible labels.	F	No label RGP-2(ur) pheno
12) Containers are not broken or leaking.	T	
13) Air Cassettes are not broken/open.	NA	
14) Sample collection date/times are provided.	T *	Mixed up sample times
15) Appropriate sample containers are used.	T	
16) Proper collection media used.	T	
17) No headspace sample bottles are completely filled.	T	
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T	
19) Trip blanks provided if applicable.	NA	
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T	
21) Samples do not require splitting or compositing.	T	

Doc #277 Rev. 4 August 2013

Who notified of False statements?

Log-In Technician Initials:

JDL

Date/Time:

Date/Time: 6/28/16 1635

MADEP MCP Analytical Method Report Certification FormD

Laboratory Name:D Con-Test Analytical LaboratoryD	Project #:D 16F1019D
Project Location:D Station 315 Goodenough St.D	RTN:D

This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)]D

16F1019-01 thru 16F1019-02D

Matrices: D WaterD

CAM Protocol (check all that below)M

8260 VOC D CAM II A (X)D	7470/7471 Hg D CAM IIIB (X)D	MassDEP VPH D CAM IV A ()D	8081 Pesticides D CAM V B ()D	7196 Hex Cr D CAM VI B ()D	MassDEP APH D CAM IX A ()D
8270 SVOC D CAM II B (X)D	7010 Metals D CAM III C ()D	MassDEP EPH D CAM IV A ()D	8151 Herbicides D CAM V C ()D	8330 Explosives D CAM VIII A ()D	TO-15 VOC D CAM IX B ()D
6010 Metals D CAM III A ()D	6020 Metals D CAM III D (X)D	8082 PCB D CAM V A (X)D	9014 Total D Cyanide/PAC D CAM VI A ()D	6860 Perchlorate D CAM VIII B ()D	

Affirmative response to Questions A through F is required for "Presumptive Certainty" status f

AM	Were all samples received in a condition consistent with those described on the Chain-of-Custody, D properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within D method holding times?D	☒ YesD ☐ No ¹ D
BM	Were the analytical method(s) and all associated QC requirements specified in the selected CAM D protocol(s) followed?D	☒ YesD ☐ No ¹ D
CM	Were all required corrective actions and analytical response actions specified in the selected CAM D protocol(s) implemented for all identified performance standard non-conformances?D	☒ YesD ☐ No ¹ D
DM	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, D Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?D	☒ YesD ☐ No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant D modification(s)? (Refer to the individual method(s) for a list of significant modifications).D	☐ YesD ☐ No ¹ D
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?D	☐ YesD ☐ No ¹ D
FM	Were all applicable CAM protocol QC and performance standard non-conformances identified and D evaluated in a laboratory narrative (including all No responses to Questions A through E)?D	☒ YesD ☐ No ¹ D

A response to questions G, H and I below is required for "Presumptive Certainty" status f

GM	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM D protocol(s)?D	☐ YesD ☒ No ¹ D
-----------	--	---

Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability f and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.f

HM	Were all QC performance standards specified in the CAM protocol(s) achieved?D	☐ YesD ☒ No ¹ D
IM	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?D	☐ YesD ☒ No ¹ D

¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.

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

Signature:D Lisa Worthington
Printed Name:D Lisa A. WorthingtonD

Position: Project Managero
Date:D 06/23/16o

August 8, 2016

Michael Zylich
NSTAR Electric & Gas Corporation - Monthly Billing
One NSTAR Way, SUM SE-250
East Sandwich, MA 02090-9230

Project Location: Eversource Station 315
Client Job Number:
Project Number: N-1023-10
Laboratory Work Order Number: 16H0199

Enclosed are results of analyses for samples received by the laboratory on August 4, 2016. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in black ink, appearing to read "James Georgantas". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

James M. Georgantas
Project Manager

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

NSTAR Electric & Gas Corporation - Monthly Billi

One NSTAR Way, SUM SE-250

East Sandwich, MA 02090-9230

ATTN: Michael Zylich

REPORT DATE: 8/8/2016

PURCHASE ORDER NUMBER: 64454, Release 1

PROJECT NUMBER: N-1023-10

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16H0199

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

PROJECT LOCATION: Eversource Station 315

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
RGP-3 (F)	16H0199-01	Ground Water		EPA 1664B	MA M-MA071/CT PH-0520
				EPA 420.1	
				SM 5310C	
				SM19-22 4500 NH3 C	
				SM21-22 2320B	
				SM21-22 2340B	
				SM21-22 2510B	
				SM21-22 2540B	
				SM21-22 2540C	
				SM21-22 2540D	
				SM21-22 4500 CL B	
				SM21-22 4500 CL G	
				SM21-22 4500 CN E	
				SM21-22 4500 H B	
				SM21-22 4500-O C	
				SW-846 6020A-B	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	

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

NSTAR Electric & Gas Corporation - Monthly Billi

One NSTAR Way, SUM SE-250

East Sandwich, MA 02090-9230

ATTN: Michael Zylich

REPORT DATE: 8/8/2016

PURCHASE ORDER NUMBER: 64454, Release 1

PROJECT NUMBER: N-1023-10

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 16H0199

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

PROJECT LOCATION: Eversource Station 315

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
RGP-3	16H0199-02	Ground Water		EPA 1664B	
				EPA 420.1	
				SM 5310C	MA M-MA071/CT PH-0520
				SM19-22 4500 NH3 C	
				SM21-22 2320B	
				SM21-22 2340B	
				SM21-22 2510B	
				SM21-22 2540B	
				SM21-22 2540C	
				SM21-22 2540D	
				SM21-22 4500 CL B	
				SM21-22 4500 CL G	
				SM21-22 4500 CN E	
				SM21-22 4500 H B	
				SM21-22 4500-O C	
				SW-846 6020A-B	
				SW-846 7196A	
				SW-846 7470A	
				SW-846 8082A	
				SW-846 8260C	
				SW-846 8270D	

CASE NARRATIVE SUMMARY

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

39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332**SM21-22 2540B****Qualifications:**

R-02
Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

Analyte & Samples(s) Qualified:

Total Solids
16H0199-02[RGP-3], B155341-DUP1

SM21-22 2540C**Qualifications:**

R-02
Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.

Analyte & Samples(s) Qualified:

Total Dissolved Solids
16H0199-02[RGP-3], B155342-DUP1

SM21-22 4500 CL G**Qualifications:**

H-03
Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

Chlorine, Residual
16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

SM21-22 4500 H B**Qualifications:**

H-05
Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.

Analyte & Samples(s) Qualified:

pH
16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

SM21-22 4500-O C**Qualifications:**

H-03
Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

Dissolved Oxygen
16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

SW-846 6020A-B**Qualifications:**

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

DL-05

Sample required a dilution due to high internal standard recovery of the lesser diluted digestion, reporting limit is elevated.

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

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Arsenic

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Barium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Beryllium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Cadmium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Chromium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Lead

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Nickel

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Selenium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Silver

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Thallium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Vanadium

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Zinc

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

SW-846 7196A

Qualifications:**H-03**

Sample received after recommended holding time was exceeded.

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

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

SW-846 8260C

Qualifications:**RL-07**

Elevated reporting limit based on lowest point in calibration.

MA CAM reporting limit not met.

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

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Methylene Chloride

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

V-05

Continuing calibration did not meet method specifications and was biased on the low side for this compound. Increased uncertainty is associated with the reported value which is likely to be biased on the low side.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155364-BLK1, B155364-BS1, B155364-BSD1

Bromoform

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155364-BLK1, B155364-BS1, B155364-BSD1

Chloromethane

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155364-BLK1, B155364-BS1, B155364-BSD1

Dichlorodifluoromethane (Freon 1)

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155364-BLK1, B155364-BS1, B155364-BSD1

V-16

Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.

Analyte & Samples(s) Qualified:**1,4-Dioxane**

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155364-BLK1, B155364-BS1, B155364-BSD1

SW-846 8270D**Qualifications:****RL-03**

Elevated reporting limit based on lowest point in calibration.

Requested reporting limit not met.

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

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155267-BLK1

Hexachlorobutadiene

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155267-BLK1

Pentachlorophenol

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3], B155267-BLK1

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:**3,3-Dichlorobenzidine**

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

4-Nitrophenol

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Bis(2-chloroisopropyl)ether

B155267-BLK1, B155267-BS1, B155267-BSD1

Bis(2-Ethylhexyl)phthalate

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Butylbenzylphthalate

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

Di-n-octylphthalate

16H0199-01[RGP-3 (F)], 16H0199-02[RGP-3]

SW-846 6010C/D SW-846 6020A/B

For NC, Metals methods SW-846 6010D and SW-846 6020B are followed, and for all other states methods SW-846 6010C and SW-846 6020A are followed.

SW-846 8260C

Laboratory control sample recoveries for required MCP Data Enhancement 8260 compounds were all within limits specified by the method except for "difficult analytes" where recovery control limits of 40-160% are used and/or unless otherwise listed in this narrative. Difficult analytes: MIBK, MEK, acetone, 1,4-dioxane, chloromethane, dichlorodifluoromethane, 2-hexanone, and bromomethane.

SW-846 8270D

Laboratory control sample recoveries for required MCP Data Enhancement 8270 compounds were all within control limits specified by the method, 40-140% for base/neutrals and 30-130% for acids except for "difficult analytes" listed below and/or otherwise listed in this narrative. Difficult analytes limits are 15 and 140%: 2,4-dinitrophenol, 4-chloroaniline, 4-nitrophenol, and phenol.

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

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

Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

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	8/5/16	8/5/16 17:16	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Bromodichloromethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Bromoform	ND	2.0	µg/L	1	V-05	SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
2-Butanone (MEK)	ND	10	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Carbon Disulfide	ND	5.0	µg/L	1	RL-07	SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Carbon Tetrachloride	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Chloromethane	ND	2.0	µg/L	1	V-05	SW-846 8260C	8/5/16	8/5/16 17:16	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
cis-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
trans-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Methylene Chloride	ND	5.0	µg/L	1	RL-07	SW-846 8260C	8/5/16	8/5/16 17:16	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Tetrahydrofuran	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:16	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	99.0	70-130	
Toluene-d8	101	70-130	
4-Bromofluorobenzene	99.6	70-130	

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (low)	ND	0.30	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Acenaphthylene (low)	ND	0.30	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Acetophenone	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Aniline	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Benzo(a)anthracene (low)	ND	0.050	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Benzo(a)pyrene (low)	ND	0.10	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Benzo(b)fluoranthene (low)	ND	0.050	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Benzo(k)fluoranthene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Bis(2-Ethylhexyl)phthalate	8.4	2.0	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Butylbenzylphthalate	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Chrysene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
3,3-Dichlorobenzidine	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Diethylphthalate	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,4-Dinitrophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,4-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Di-n-octylphthalate	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Fluoranthene (low)	ND	0.50	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Fluorene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Hexachlorobenzene	ND	2.0	µg/L	1	RL-03	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Hexachlorobutadiene	ND	2.0	µg/L	1	RL-03	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Hexachloroethane	ND	2.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Isophorone	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2-Methylnaphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM

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

Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Naphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Nitrobenzene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
4-Nitrophenol	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Pentachlorophenol	ND	5.0	µg/L	1	RL-03	SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Phenanthrene (low)	ND	0.050	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
Phenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
Pyrene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:06	CJM
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:13	WSD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	44.9	15-110	
Phenol-d6	32.4	15-110	
Nitrobenzene-d5	74.3	30-130	
Nitrobenzene-d5 (low)	59.6	30-130	
2-Fluorobiphenyl	77.4	30-130	
2-Fluorobiphenyl (low)	58.8	30-130	
2,4,6-Tribromophenol	80.9	15-110	
p-Terphenyl-d14	88.3	30-130	
p-Terphenyl-d14 (low)	54.9	30-130	

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

Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1221 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1232 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1242 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1248 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1254 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1260 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1262 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Aroclor-1268 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:00	KAL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Decachlorobiphenyl 1]	76.8	30-150						8/5/16 12:00	
Decachlorobiphenyl 2]	83.4	30-150						8/5/16 12:00	
Tetrachloro-m-xylene 1]	73.5	30-150						8/5/16 12:00	
Tetrachloro-m-xylene 2]	78.0	30-150						8/5/16 12:00	

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Metals Analyses (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	20	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Arsenic	ND	8.0	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Barium	470	200	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Beryllium	ND	8.0	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:41	AME
Cadmium	ND	10	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Chromium	ND	20	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Lead	ND	20	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	8/5/16	8/5/16 14:46	SHN
Nickel	ND	100	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Selenium	ND	100	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Silver	ND	10	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Thallium	ND	4.0	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Vanadium	ND	100	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Zinc	ND	200	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 8:57	AME
Hardness	290	3.0	mg/L	1		SM21-22 2340B	8/5/16	8/8/16 16:06	AME

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

Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alkalinity	290	1.0	mg/L	1		SM21-22 2320B	8/5/16	8/5/16 11:10	VAK
Ammonia as N	9.0	0.30	mg/L	1		SM19-22 4500 NH3 C	8/4/16	8/5/16 0:00	AMM
Chloride	4100	50	mg/L	50		SM21-22 4500 CL B	8/5/16	8/5/16 15:20	AG
Chlorine, Residual	ND	0.020	mg/L	1	H-03	SM21-22 4500 CL G	8/4/16	8/4/16 22:50	AMM
Cyanide	ND	0.010	mg/L	1		SM21-22 4500 CN E	8/8/16	8/8/16 12:40	VAK
Dissolved Oxygen	3.8	1.0	mg/L	1	H-03	SM21-22 4500-O C	8/4/16	8/4/16 21:30	AMM
Hexavalent Chromium	ND	0.0040	mg/L	1	H-03	SW-846 7196A	8/4/16	8/4/16 23:40	AMM
pH @16.4°C	7.0		pH Units	1	H-05	SM21-22 4500 H B	8/4/16	8/4/16 21:00	IS
Phenol	0.15	0.050	mg/L	1		EPA 420.1	8/5/16	8/5/16 22:00	MMH
Specific conductance	12000	2.0	µmhos/cm	1		SM21-22 2510B	8/8/16	8/8/16 15:00	AG
Total Solids	6900	10	mg/L	1		SM21-22 2540B	8/5/16	8/5/16 10:05	LL
Total Suspended Solids	35	5.0	mg/L	1		SM21-22 2540D	8/5/16	8/5/16 12:00	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.6	mg/L	1		EPA 1664B	8/8/16	8/8/16 11:30	LL

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

Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	6200	10	mg/L	1		SM21-22 2540C	8/5/16	8/5/16 10:30	LL

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3 (F)

Sample ID: 16H0199-01

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 2:30:00PM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Organic Carbon	8.05	1	mg/L	1		SM 5310C		8/8/16 0:00	SAL

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

Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

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	8/5/16	8/5/16 17:43	EEH
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Benzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Bromobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Bromochloromethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Bromodichloromethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Bromoform	ND	2.0	µg/L	1	V-05	SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Bromomethane	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
2-Butanone (MEK)	ND	10	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
n-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
sec-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
tert-Butylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Carbon Disulfide	ND	5.0	µg/L	1	RL-07	SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Carbon Tetrachloride	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Chlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Chlorodibromomethane	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Chloroethane	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Chloroform	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Chloromethane	ND	2.0	µg/L	1	V-05	SW-846 8260C	8/5/16	8/5/16 17:43	EEH
2-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
4-Chlorotoluene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2-Dibromoethane (EDB)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Dibromomethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,3-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,4-Dichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L	1	V-05	SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2-Dichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
cis-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
trans-1,2-Dichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,3-Dichloropropane	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
2,2-Dichloropropane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1-Dichloropropene	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
cis-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
trans-1,3-Dichloropropene	ND	0.40	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Diethyl Ether	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Diisopropyl Ether (DIPE)	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,4-Dioxane	ND	50	µg/L	1	V-05, V-16	SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Ethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexachlorobutadiene	ND	0.60	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
2-Hexanone (MBK)	ND	10	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Isopropylbenzene (Cumene)	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Methylene Chloride	ND	5.0	µg/L	1	RL-07	SW-846 8260C	8/5/16	8/5/16 17:43	EEH
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Naphthalene	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
n-Propylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Styrene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Tetrachloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Tetrahydrofuran	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Toluene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2,3-Trichlorobenzene	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2,4-Trichlorobenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1,1-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,1,2-Trichloroethane	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Trichloroethylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2,3-Trichloropropane	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,2,4-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
1,3,5-Trimethylbenzene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
Vinyl Chloride	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
m+p Xylene	ND	2.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH
o-Xylene	ND	1.0	µg/L	1		SW-846 8260C	8/5/16	8/5/16 17:43	EEH

Surrogates	% Recovery	Recovery Limits	Flag/Qual
1,2-Dichloroethane-d4	101	70-130	8/5/16 17:43
Toluene-d8	99.4	70-130	8/5/16 17:43
4-Bromofluorobenzene	98.4	70-130	8/5/16 17:43

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene (low)	ND	0.30	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Acenaphthylene (low)	ND	0.30	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Acetophenone	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Aniline	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Benzo(a)anthracene (low)	ND	0.050	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Benzo(a)pyrene (low)	ND	0.10	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Benzo(b)fluoranthene (low)	ND	0.050	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Benzo(k)fluoranthene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Bis(2-chloroethoxy)methane	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Bis(2-chloroethyl)ether	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Bis(2-chloroisopropyl)ether	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Bis(2-Ethylhexyl)phthalate	ND	2.0	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
4-Bromophenylphenylether	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Butylbenzylphthalate	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
4-Chloroaniline	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2-Chloronaphthalene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2-Chlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Chrysene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Dibenzofuran	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Di-n-butylphthalate	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
1,2-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
1,3-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
1,4-Dichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
3,3-Dichlorobenzidine	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,4-Dichlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Diethylphthalate	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,4-Dimethylphenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Dimethylphthalate	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,4-Dinitrophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,4-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,6-Dinitrotoluene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Di-n-octylphthalate	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Fluoranthene (low)	ND	0.50	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Fluorene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Hexachlorobenzene	ND	2.0	µg/L	1	RL-03	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Hexachlorobutadiene	ND	2.0	µg/L	1	RL-03	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Hexachloroethane	ND	2.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Isophorone	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2-Methylnaphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
3/4-Methylphenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Naphthalene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Nitrobenzene	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2-Nitrophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
4-Nitrophenol	ND	10	µg/L	1	V-20	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Pentachlorophenol	ND	5.0	µg/L	1	RL-03	SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Phenanthrene (low)	ND	0.050	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
Phenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
Pyrene (low)	ND	1.0	µg/L	1		SW-846 8270D	8/4/16	8/5/16 11:36	CJM
1,2,4-Trichlorobenzene	ND	5.0	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,4,5-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD
2,4,6-Trichlorophenol	ND	10	µg/L	1		SW-846 8270D	8/4/16	8/6/16 11:34	WSD

Surrogates	% Recovery	Recovery Limits	Flag/Qual
2-Fluorophenol	43.5	15-110	
Phenol-d6	30.1	15-110	
Nitrobenzene-d5	63.4	30-130	
Nitrobenzene-d5 (low)	51.9	30-130	
2-Fluorobiphenyl	68.3	30-130	
2-Fluorobiphenyl (low)	54.0	30-130	
2,4,6-Tribromophenol	80.0	15-110	
p-Terphenyl-d14	78.3	30-130	
p-Terphenyl-d14 (low)	48.5	30-130	

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1221 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1232 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1242 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1248 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1254 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1260 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1262 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Aroclor-1268 1]	ND	0.20	µg/L	1		SW-846 8082A	8/4/16	8/5/16 12:13	KAL
Surrogates	% Recovery	Recovery Limits	Flag/Qual						
Decachlorobiphenyl 1]	65.1	30-150							
Decachlorobiphenyl 2]	70.9	30-150							
Tetrachloro-m-xylene 1]	68.6	30-150							
Tetrachloro-m-xylene 2]	73.5	30-150							

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	20	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Arsenic	10	8.0	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Barium	470	200	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Beryllium	ND	8.0	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Cadmium	ND	10	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Chromium	ND	20	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Lead	80	20	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Mercury	ND	0.00010	mg/L	1		SW-846 7470A	8/5/16	8/8/16 12:44	SHN
Nickel	ND	100	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Selenium	ND	100	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Silver	ND	10	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Thallium	ND	4.0	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Vanadium	ND	100	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Zinc	1000	200	µg/L	20	DL-05	SW-846 6020A-B	8/5/16	8/8/16 11:45	AME
Hardness	280	3.0	mg/L	1		SM21-22 2340B	8/5/16	8/8/16 16:06	AME

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Alkalinity	300	1.0	mg/L	1		SM21-22 2320B	8/5/16	8/5/16 11:10	VAK
Ammonia as N	8.4	0.30	mg/L	1		SM19-22 4500 NH3 C	8/4/16	8/5/16 0:00	AMM
Chloride	4000	50	mg/L	50		SM21-22 4500 CL B	8/5/16	8/5/16 15:20	AG
Chlorine, Residual	0.11	0.020	mg/L	1	H-03	SM21-22 4500 CL G	8/4/16	8/4/16 22:50	AMM
Cyanide	ND	0.010	mg/L	1		SM21-22 4500 CN E	8/8/16	8/8/16 12:40	VAK
Dissolved Oxygen	2.5	1.0	mg/L	1	H-03	SM21-22 4500-O C	8/4/16	8/4/16 21:30	AMM
Hexavalent Chromium	ND	0.0040	mg/L	1	H-03	SW-846 7196A	8/4/16	8/4/16 23:40	AMM
pH @16.5°C	7.0		pH Units	1	H-05	SM21-22 4500 H B	8/4/16	8/4/16 21:00	IS
Phenol	ND	0.050	mg/L	1		EPA 420.1	8/5/16	8/5/16 22:00	MMH
Specific conductance	12000	2.0	µmhos/cm	1		SM21-22 2510B	8/8/16	8/8/16 15:00	AG
Total Solids	7300	10	mg/L	1	R-02	SM21-22 2540B	8/5/16	8/5/16 10:05	LL
Total Suspended Solids	32	5.0	mg/L	1		SM21-22 2540D	8/5/16	8/5/16 12:00	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	1		EPA 1664B	8/8/16	8/8/16 11:30	LL

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Dissolved Solids	6400	10	mg/L	1	R-02	SM21-22 2540C	8/5/16	8/5/16 10:30	LL

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Project Location: Eversource Station 315

Sample Description:

Work Order: 16H0199

Date Received: 8/4/2016

Field Sample #: RGP-3

Sample ID: 16H0199-02

Start Date/Time: 8/3/2016 9:30:00AM

Sample Matrix: Ground Water

Stop Date/Time: 8/3/2016 3:20:00PM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Total Organic Carbon	7.13	1	mg/L	1		SM 5310C		8/8/16 0:00	SAL

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Sample Extraction Data**EPA 1664B**

Lab Number [Field ID]	Batch	Initial [mL]	Date
16H0199-01 RGP-3 (F)]	B155457	870	08/08/16
16H0199-02 RGP-3]	B155457	1000	08/08/16

EPA 420.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155424	50.0	50.0	08/05/16
16H0199-02 RGP-3]	B155424	50.0	50.0	08/05/16

SM19-22 4500 NH3 C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155306	100	100	08/04/16
16H0199-02 RGP-3]	B155306	100	100	08/04/16

SM21-22 2320B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155386	100	100	08/05/16
16H0199-02 RGP-3]	B155386	100	100	08/05/16

Prep Method: SW-846 3005A-SM21-22 2340B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155417	50.0	50.0	08/05/16
16H0199-02 RGP-3]	B155417	50.0	50.0	08/05/16

SM21-22 2510B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16H0199-01 RGP-3 (F)]	B155519	100	08/08/16
16H0199-02 RGP-3]	B155519	100	08/08/16

SM21-22 2540B

Lab Number [Field ID]	Batch	Initial [mL]	Date
16H0199-01 RGP-3 (F)]	B155341	50.0	08/05/16
16H0199-02 RGP-3]	B155341	50.0	08/05/16

SM21-22 2540C

Lab Number [Field ID]	Batch	Initial [mL]	Date
16H0199-01 RGP-3 (F)]	B155342	50.0	08/05/16
16H0199-02 RGP-3]	B155342	50.0	08/05/16

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Sample Extraction Data**SM21-22 2540D**

Lab Number [Field ID]	Batch	Initial [mL]	Date	
16H0199-01 RGP-3 (F)]	B155395	100	08/05/16	
16H0199-02 RGP-3]	B155395	100	08/05/16	

SM21-22 4500 CL B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155413	100	100	08/05/16
16H0199-02 RGP-3]	B155413	100	100	08/05/16

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155321	100	100	08/04/16
16H0199-02 RGP-3]	B155321	100	100	08/04/16

SM21-22 4500 CN E

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155493	50.0	50.0	08/08/16
16H0199-02 RGP-3]	B155493	50.0	50.0	08/08/16

SM21-22 4500 H B

Lab Number [Field ID]	Batch	Initial [mL]	Date	
16H0199-01 RGP-3 (F)]	B155318	50.0	08/04/16	
16H0199-02 RGP-3]	B155318	50.0	08/04/16	

SM21-22 4500-O C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155324	300	300	08/04/16
16H0199-02 RGP-3]	B155324	300	300	08/04/16

Prep Method: SW-846 3005A-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-02 RGP-3]	B155346	50.0	50.0	08/05/16

Prep Method: SW-846 3005A Dissolved-SW-846 6020A-B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155358	50.0	50.0	08/05/16

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Sample Extraction Data**SW-846 7196A**

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155323	50.0	50.0	08/04/16
16H0199-02 RGP-3]	B155323	50.0	50.0	08/04/16

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-02 RGP-3]	B155356	6.00	6.00	08/05/16

Prep Method: SW-846 7470A Prep-SW-846 7470A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155372	6.00	6.00	08/05/16

Prep Method: SW-846 3510C-SW-846 8082A

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155311	1000	10.0	08/04/16
16H0199-02 RGP-3]	B155311	1000	10.0	08/04/16

Prep Method: SW-846 5030B-SW-846 8260C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155364	5	5.00	08/05/16
16H0199-02 RGP-3]	B155364	5	5.00	08/05/16

Prep Method: SW-846 3510C-SW-846 8270D

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
16H0199-01 RGP-3 (F)]	B155267	1000	1.00	08/04/16
16H0199-02 RGP-3]	B155267	1000	1.00	08/04/16

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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 B155364 - SW-846 5030B										
Blank (B155364-BLK1)				Prepared & Analyzed: 08/05/16						
Acetone	ND	10	µg/L							
tert-Amyl Methyl Ether (TAME)	ND	0.50	µg/L							
Benzene	ND	1.0	µg/L							
Bromobenzene	ND	1.0	µg/L							
Bromochloromethane	ND	1.0	µg/L							
Bromodichloromethane	ND	1.0	µg/L							
Bromoform	ND	2.0	µg/L							V-05
Bromomethane	ND	2.0	µg/L							
2-Butanone (MEK)	ND	10	µg/L							
n-Butylbenzene	ND	1.0	µg/L							
sec-Butylbenzene	ND	1.0	µg/L							
tert-Butylbenzene	ND	1.0	µg/L							
tert-Butyl Ethyl Ether (TBEE)	ND	0.50	µg/L							
Carbon Disulfide	ND	5.0	µg/L							
Carbon Tetrachloride	ND	1.0	µg/L							
Chlorobenzene	ND	1.0	µg/L							
Chlorodibromomethane	ND	0.50	µg/L							
Chloroethane	ND	2.0	µg/L							
Chloroform	ND	2.0	µg/L							
Chloromethane	ND	2.0	µg/L							V-05
2-Chlorotoluene	ND	1.0	µg/L							
4-Chlorotoluene	ND	1.0	µg/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	2.0	µg/L							
1,2-Dibromoethane (EDB)	ND	0.50	µg/L							
Dibromomethane	ND	1.0	µg/L							
1,2-Dichlorobenzene	ND	1.0	µg/L							
1,3-Dichlorobenzene	ND	1.0	µg/L							
1,4-Dichlorobenzene	ND	1.0	µg/L							
Dichlorodifluoromethane (Freon 12)	ND	2.0	µg/L							V-05
1,1-Dichloroethane	ND	1.0	µg/L							
1,2-Dichloroethane	ND	1.0	µg/L							
1,1-Dichloroethylene	ND	1.0	µg/L							
cis-1,2-Dichloroethylene	ND	1.0	µg/L							
trans-1,2-Dichloroethylene	ND	1.0	µg/L							
1,2-Dichloropropane	ND	1.0	µg/L							
1,3-Dichloropropane	ND	0.50	µg/L							
2,2-Dichloropropane	ND	1.0	µg/L							
1,1-Dichloropropene	ND	0.50	µg/L							
cis-1,3-Dichloropropene	ND	0.40	µg/L							
trans-1,3-Dichloropropene	ND	0.40	µg/L							
Diethyl Ether	ND	2.0	µg/L							
Diisopropyl Ether (DIPE)	ND	0.50	µg/L							
1,4-Dioxane	ND	50	µg/L							V-05, V-16
Ethylbenzene	ND	1.0	µg/L							
Hexachlorobutadiene	ND	0.60	µg/L							
2-Hexanone (MBK)	ND	10	µg/L							
Isopropylbenzene (Cumene)	ND	1.0	µg/L							
p-Isopropyltoluene (p-Cymene)	ND	1.0	µg/L							
Methyl tert-Butyl Ether (MTBE)	ND	1.0	µg/L							
Methylene Chloride	ND	5.0	µg/L							
4-Methyl-2-pentanone (MIBK)	ND	10	µg/L							
Naphthalene	ND	2.0	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 B155364 - SW-846 5030B										
Blank (B155364-BLK1)										
Prepared & Analyzed: 08/05/16										
n-Propylbenzene	ND	1.0	µg/L							
Styrene	ND	1.0	µg/L							
1,1,1,2-Tetrachloroethane	ND	1.0	µg/L							
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L							
Tetrachloroethylene	ND	1.0	µg/L							
Tetrahydrofuran	ND	2.0	µg/L							
Toluene	ND	1.0	µg/L							
1,2,3-Trichlorobenzene	ND	2.0	µg/L							
1,2,4-Trichlorobenzene	ND	1.0	µg/L							
1,1,1-Trichloroethane	ND	1.0	µg/L							
1,1,2-Trichloroethane	ND	1.0	µg/L							
Trichloroethylene	ND	1.0	µg/L							
Trichlorofluoromethane (Freon 11)	ND	2.0	µg/L							
1,2,3-Trichloropropane	ND	2.0	µg/L							
1,2,4-Trimethylbenzene	ND	1.0	µg/L							
1,3,5-Trimethylbenzene	ND	1.0	µg/L							
Vinyl Chloride	ND	2.0	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	24.8		µg/L	25.0		99.4	70-130			
Surrogate: 4-Bromofluorobenzene	24.6		µg/L	25.0		98.5	70-130			
LCS (B155364-BS1)										
Prepared & Analyzed: 08/05/16										
Acetone	136	10	µg/L	100		136	40-160			L-14 †
tert-Amyl Methyl Ether (TAME)	9.90	0.50	µg/L	10.0		99.0	70-130			
Benzene	9.93	1.0	µg/L	10.0		99.3	70-130			
Bromobenzene	9.91	1.0	µg/L	10.0		99.1	70-130			
Bromochloromethane	10.7	1.0	µg/L	10.0		107	70-130			
Bromodichloromethane	10.1	1.0	µg/L	10.0		101	70-130			
Bromoform	8.62	2.0	µg/L	10.0		86.2	70-130			V-05
Bromomethane	6.54	2.0	µg/L	10.0		65.4	40-160			L-14 †
2-Butanone (MEK)	114	10	µg/L	100		114	40-160			†
n-Butylbenzene	10.3	1.0	µg/L	10.0		103	70-130			
sec-Butylbenzene	9.91	1.0	µg/L	10.0		99.1	70-130			
tert-Butylbenzene	9.74	1.0	µg/L	10.0		97.4	70-130			
tert-Butyl Ethyl Ether (TBEE)	10.1	0.50	µg/L	10.0		101	70-130			
Carbon Disulfide	9.15	5.0	µg/L	10.0		91.5	70-130			
Carbon Tetrachloride	9.54	1.0	µg/L	10.0		95.4	70-130			
Chlorobenzene	10.3	1.0	µg/L	10.0		103	70-130			
Chlorodibromomethane	9.98	0.50	µg/L	10.0		99.8	70-130			
Chloroethane	10.6	2.0	µg/L	10.0		106	70-130			
Chloroform	10.2	2.0	µg/L	10.0		102	70-130			
Chloromethane	6.31	2.0	µg/L	10.0		63.1	40-160			L-14, V-05 †
2-Chlorotoluene	9.14	1.0	µg/L	10.0		91.4	70-130			
4-Chlorotoluene	9.65	1.0	µg/L	10.0		96.5	70-130			
1,2-Dibromo-3-chloropropane (DBCP)	8.92	2.0	µg/L	10.0		89.2	70-130			
1,2-Dibromoethane (EDB)	10.9	0.50	µg/L	10.0		109	70-130			
Dibromomethane	10.9	1.0	µg/L	10.0		109	70-130			
1,2-Dichlorobenzene	9.98	1.0	µg/L	10.0		99.8	70-130			
1,3-Dichlorobenzene	10.0	1.0	µg/L	10.0		100	70-130			
1,4-Dichlorobenzene	9.40	1.0	µg/L	10.0		94.0	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 B155364 - SW-846 5030B										
LCS (B155364-BS1)				Prepared & Analyzed: 08/05/16						
Dichlorodifluoromethane (Freon 12)	7.56	2.0	µg/L	10.0		75.6	40-160			V-05 †
1,1-Dichloroethane	10.5	1.0	µg/L	10.0		105	70-130			
1,2-Dichloroethane	10.1	1.0	µg/L	10.0		101	70-130			
1,1-Dichloroethylene	9.78	1.0	µg/L	10.0		97.8	70-130			
cis-1,2-Dichloroethylene	9.80	1.0	µg/L	10.0		98.0	70-130			
trans-1,2-Dichloroethylene	9.94	1.0	µg/L	10.0		99.4	70-130			
1,2-Dichloropropane	10.1	1.0	µg/L	10.0		101	70-130			
1,3-Dichloropropane	10.5	0.50	µg/L	10.0		105	70-130			
2,2-Dichloropropane	9.87	1.0	µg/L	10.0		98.7	70-130			
1,1-Dichloropropene	10.1	0.50	µg/L	10.0		101	70-130			
cis-1,3-Dichloropropene	9.48	0.40	µg/L	10.0		94.8	70-130			
trans-1,3-Dichloropropene	9.80	0.40	µg/L	10.0		98.0	70-130			
Diethyl Ether	10.8	2.0	µg/L	10.0		108	70-130			
Diisopropyl Ether (DIPE)	9.51	0.50	µg/L	10.0		95.1	70-130			
1,4-Dioxane	89.2	50	µg/L	100		89.2	40-160			V-05, V-16 †
Ethylbenzene	9.63	1.0	µg/L	10.0		96.3	70-130			
Hexachlorobutadiene	10.5	0.60	µg/L	10.0		105	70-130			
2-Hexanone (MBK)	96.1	10	µg/L	100		96.1	40-160			†
Isopropylbenzene (Cumene)	11.5	1.0	µg/L	10.0		115	70-130			
p-Isopropyltoluene (p-Cymene)	9.70	1.0	µg/L	10.0		97.0	70-130			
Methyl tert-Butyl Ether (MTBE)	9.95	1.0	µg/L	10.0		99.5	70-130			
Methylene Chloride	10.6	5.0	µg/L	10.0		106	70-130			
4-Methyl-2-pentanone (MIBK)	95.2	10	µg/L	100		95.2	40-160			†
Naphthalene	11.0	2.0	µg/L	10.0		110	70-130			
n-Propylbenzene	9.85	1.0	µg/L	10.0		98.5	70-130			
Styrene	9.78	1.0	µg/L	10.0		97.8	70-130			
1,1,1,2-Tetrachloroethane	9.86	1.0	µg/L	10.0		98.6	70-130			
1,1,1,2,2-Tetrachloroethane	10.7	0.50	µg/L	10.0		107	70-130			
Tetrachloroethylene	9.98	1.0	µg/L	10.0		99.8	70-130			
Tetrahydrofuran	10.2	2.0	µg/L	10.0		102	70-130			
Toluene	9.86	1.0	µg/L	10.0		98.6	70-130			
1,2,3-Trichlorobenzene	11.0	2.0	µg/L	10.0		110	70-130			
1,2,4-Trichlorobenzene	10.5	1.0	µg/L	10.0		105	70-130			
1,1,1-Trichloroethane	10.1	1.0	µg/L	10.0		101	70-130			
1,1,2-Trichloroethane	10.8	1.0	µg/L	10.0		108	70-130			
Trichloroethylene	10.3	1.0	µg/L	10.0		103	70-130			
Trichlorofluoromethane (Freon 11)	10.2	2.0	µg/L	10.0		102	70-130			
1,2,3-Trichloropropane	10.6	2.0	µg/L	10.0		106	70-130			
1,2,4-Trimethylbenzene	9.65	1.0	µg/L	10.0		96.5	70-130			
1,3,5-Trimethylbenzene	9.44	1.0	µg/L	10.0		94.4	70-130			
Vinyl Chloride	10.3	2.0	µg/L	10.0		103	70-130			
m+p Xylene	19.3	2.0	µg/L	20.0		96.3	70-130			
o-Xylene	9.64	1.0	µg/L	10.0		96.4	70-130			
Surrogate: 1,2-Dichloroethane-d4	26.3		µg/L	25.0		105	70-130			
Surrogate: Toluene-d8	25.3		µg/L	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	24.5		µg/L	25.0		98.0	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 B155364 - SW-846 5030B										
LCS Dup (B155364-BSD1)				Prepared & Analyzed: 08/05/16						
Acetone	117	10	µg/L	100		117	40-160	15.2	20	†
tert-Amyl Methyl Ether (TAME)	10.0	0.50	µg/L	10.0		100	70-130	1.40	20	
Benzene	9.63	1.0	µg/L	10.0		96.3	70-130	3.07	20	
Bromobenzene	9.82	1.0	µg/L	10.0		98.2	70-130	0.912	20	
Bromochloromethane	10.8	1.0	µg/L	10.0		108	70-130	0.372	20	
Bromodichloromethane	9.86	1.0	µg/L	10.0		98.6	70-130	2.31	20	
Bromoform	8.39	2.0	µg/L	10.0		83.9	70-130	2.70	20	V-05
Bromomethane	7.19	2.0	µg/L	10.0		71.9	40-160	9.47	20	†
2-Butanone (MEK)	105	10	µg/L	100		105	40-160	8.97	20	†
n-Butylbenzene	9.88	1.0	µg/L	10.0		98.8	70-130	4.45	20	
sec-Butylbenzene	9.31	1.0	µg/L	10.0		93.1	70-130	6.24	20	
tert-Butylbenzene	9.25	1.0	µg/L	10.0		92.5	70-130	5.16	20	
tert-Butyl Ethyl Ether (TBEE)	10.1	0.50	µg/L	10.0		101	70-130	0.0988	20	
Carbon Disulfide	8.56	5.0	µg/L	10.0		85.6	70-130	6.66	20	
Carbon Tetrachloride	9.19	1.0	µg/L	10.0		91.9	70-130	3.74	20	
Chlorobenzene	9.73	1.0	µg/L	10.0		97.3	70-130	5.89	20	
Chlorodibromomethane	9.81	0.50	µg/L	10.0		98.1	70-130	1.72	20	
Chloroethane	10.2	2.0	µg/L	10.0		102	70-130	3.74	20	
Chloroform	9.73	2.0	µg/L	10.0		97.3	70-130	4.32	20	
Chloromethane	7.15	2.0	µg/L	10.0		71.5	40-160	12.5	20	V-05 †
2-Chlorotoluene	9.30	1.0	µg/L	10.0		93.0	70-130	1.74	20	
4-Chlorotoluene	9.27	1.0	µg/L	10.0		92.7	70-130	4.02	20	
1,2-Dibromo-3-chloropropane (DBCP)	9.08	2.0	µg/L	10.0		90.8	70-130	1.78	20	
1,2-Dibromoethane (EDB)	10.8	0.50	µg/L	10.0		108	70-130	1.20	20	
Dibromomethane	10.5	1.0	µg/L	10.0		105	70-130	3.37	20	
1,2-Dichlorobenzene	9.93	1.0	µg/L	10.0		99.3	70-130	0.502	20	
1,3-Dichlorobenzene	9.64	1.0	µg/L	10.0		96.4	70-130	3.67	20	
1,4-Dichlorobenzene	9.36	1.0	µg/L	10.0		93.6	70-130	0.426	20	
Dichlorodifluoromethane (Freon 12)	7.06	2.0	µg/L	10.0		70.6	40-160	6.84	20	V-05 †
1,1-Dichloroethane	10.1	1.0	µg/L	10.0		101	70-130	4.08	20	
1,2-Dichloroethane	9.64	1.0	µg/L	10.0		96.4	70-130	4.76	20	
1,1-Dichloroethylene	9.49	1.0	µg/L	10.0		94.9	70-130	3.01	20	
cis-1,2-Dichloroethylene	9.49	1.0	µg/L	10.0		94.9	70-130	3.21	20	
trans-1,2-Dichloroethylene	9.60	1.0	µg/L	10.0		96.0	70-130	3.48	20	
1,2-Dichloropropane	9.60	1.0	µg/L	10.0		96.0	70-130	5.47	20	
1,3-Dichloropropane	10.1	0.50	µg/L	10.0		101	70-130	4.07	20	
2,2-Dichloropropane	9.53	1.0	µg/L	10.0		95.3	70-130	3.51	20	
1,1-Dichloropropene	9.64	0.50	µg/L	10.0		96.4	70-130	4.26	20	
cis-1,3-Dichloropropene	9.01	0.40	µg/L	10.0		90.1	70-130	5.08	20	
trans-1,3-Dichloropropene	9.82	0.40	µg/L	10.0		98.2	70-130	0.204	20	
Diethyl Ether	10.7	2.0	µg/L	10.0		107	70-130	1.49	20	
Diisopropyl Ether (DIPE)	9.16	0.50	µg/L	10.0		91.6	70-130	3.75	20	
1,4-Dioxane	88.9	50	µg/L	100		88.9	40-160	0.314	20	V-05, V-16 †
Ethylbenzene	9.15	1.0	µg/L	10.0		91.5	70-130	5.11	20	
Hexachlorobutadiene	10.5	0.60	µg/L	10.0		105	70-130	0.190	20	
2-Hexanone (MBK)	92.3	10	µg/L	100		92.3	40-160	4.07	20	†
Isopropylbenzene (Cumene)	11.0	1.0	µg/L	10.0		110	70-130	3.99	20	
p-Isopropyltoluene (p-Cymene)	9.39	1.0	µg/L	10.0		93.9	70-130	3.25	20	
Methyl tert-Butyl Ether (MTBE)	10.1	1.0	µg/L	10.0		101	70-130	1.79	20	
Methylene Chloride	10.5	5.0	µg/L	10.0		105	70-130	0.857	20	
4-Methyl-2-pentanone (MIBK)	94.1	10	µg/L	100		94.1	40-160	1.12	20	†
Naphthalene	11.1	2.0	µg/L	10.0		111	70-130	1.27	20	

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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 B155364 - SW-846 5030B										
LCS Dup (B155364-BSD1)				Prepared & Analyzed: 08/05/16						
n-Propylbenzene	9.27	1.0	µg/L	10.0		92.7	70-130	6.07	20	
Styrene	9.53	1.0	µg/L	10.0		95.3	70-130	2.59	20	
1,1,1,2-Tetrachloroethane	9.46	1.0	µg/L	10.0		94.6	70-130	4.14	20	
1,1,2,2-Tetrachloroethane	10.4	0.50	µg/L	10.0		104	70-130	2.94	20	
Tetrachloroethylene	9.51	1.0	µg/L	10.0		95.1	70-130	4.82	20	
Tetrahydrofuran	10.2	2.0	µg/L	10.0		102	70-130	0.392	20	
Toluene	9.21	1.0	µg/L	10.0		92.1	70-130	6.82	20	
1,2,3-Trichlorobenzene	10.9	2.0	µg/L	10.0		109	70-130	1.46	20	
1,2,4-Trichlorobenzene	10.4	1.0	µg/L	10.0		104	70-130	0.383	20	
1,1,1-Trichloroethane	9.37	1.0	µg/L	10.0		93.7	70-130	7.30	20	
1,1,2-Trichloroethane	10.2	1.0	µg/L	10.0		102	70-130	5.25	20	
Trichloroethylene	9.94	1.0	µg/L	10.0		99.4	70-130	3.94	20	
Trichlorofluoromethane (Freon 11)	9.42	2.0	µg/L	10.0		94.2	70-130	8.15	20	
1,2,3-Trichloropropane	10.4	2.0	µg/L	10.0		104	70-130	1.80	20	
1,2,4-Trimethylbenzene	9.20	1.0	µg/L	10.0		92.0	70-130	4.77	20	
1,3,5-Trimethylbenzene	9.06	1.0	µg/L	10.0		90.6	70-130	4.11	20	
Vinyl Chloride	9.75	2.0	µg/L	10.0		97.5	70-130	5.10	20	
m+p Xylene	18.5	2.0	µg/L	20.0		92.3	70-130	4.24	20	
o-Xylene	9.35	1.0	µg/L	10.0		93.5	70-130	3.05	20	
Surrogate: 1,2-Dichloroethane-d4	26.0		µg/L	25.0		104	70-130			
Surrogate: Toluene-d8	24.6		µg/L	25.0		98.2	70-130			
Surrogate: 4-Bromofluorobenzene	24.7		µg/L	25.0		98.9	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
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Batch B155267 - SW-846 3510C

Blank (B155267-BLK1)

Prepared & Analyzed: 08/04/16

Acenaphthene	ND	5.0	µg/L							
Acenaphthene (low)	ND	0.30	µg/L							
Acenaphthylene	ND	5.0	µg/L							
Acenaphthylene (low)	ND	0.30	µg/L							
Acetophenone	ND	10	µg/L							
Aniline	ND	5.0	µg/L							
Anthracene	ND	5.0	µg/L							
Anthracene (low)	ND	0.20	µg/L							
Benzo(a)anthracene	ND	5.0	µg/L							
Benzo(a)anthracene (low)	ND	0.050	µg/L							
Benzo(a)pyrene	ND	5.0	µg/L							
Benzo(a)pyrene (low)	ND	0.10	µg/L							
Benzo(b)fluoranthene	ND	5.0	µg/L							
Benzo(b)fluoranthene (low)	ND	0.050	µg/L							
Benzo(g,h,i)perylene	ND	5.0	µg/L							
Benzo(g,h,i)perylene (low)	ND	0.50	µg/L							
Benzo(k)fluoranthene	ND	5.0	µg/L							
Benzo(k)fluoranthene (low)	ND	0.20	µg/L							
Bis(2-chloroethoxy)methane	ND	10	µg/L							
Bis(2-chloroethyl)ether	ND	10	µg/L							
Bis(2-chloroisopropyl)ether	ND	10	µg/L							V-20
Bis(2-Ethylhexyl)phthalate	ND	10	µg/L							
4-Bromophenylphenylether	ND	10	µg/L							
Butylbenzylphthalate	ND	10	µg/L							
4-Chloroaniline	ND	10	µg/L							
2-Chloronaphthalene	ND	10	µg/L							
2-Chlorophenol	ND	10	µg/L							
Chrysene	ND	5.0	µg/L							
Chrysene (low)	ND	0.20	µg/L							
Dibenz(a,h)anthracene	ND	5.0	µg/L							
Dibenz(a,h)anthracene (low)	ND	0.20	µg/L							
Dibenzofuran	ND	5.0	µg/L							
Di-n-butylphthalate	ND	10	µg/L							
1,2-Dichlorobenzene	ND	5.0	µg/L							
1,3-Dichlorobenzene	ND	5.0	µg/L							
1,4-Dichlorobenzene	ND	5.0	µg/L							
3,3-Dichlorobenzidine	ND	10	µg/L							
2,4-Dichlorophenol	ND	10	µg/L							
Diethylphthalate	ND	10	µg/L							
2,4-Dimethylphenol	ND	10	µg/L							
Dimethylphthalate	ND	10	µg/L							
2,4-Dinitrophenol	ND	10	µg/L							
2,4-Dinitrotoluene	ND	10	µg/L							
2,6-Dinitrotoluene	ND	10	µg/L							
Di-n-octylphthalate	ND	10	µg/L							
1,2-Diphenylhydrazine (as Azobenzene)	ND	10	µg/L							
Fluoranthene	ND	5.0	µg/L							
Fluoranthene (low)	ND	0.50	µg/L							
Fluorene	ND	5.0	µg/L							
Fluorene (low)	ND	1.0	µg/L							
Hexachlorobenzene	ND	10	µg/L							RL-03
Hexachlorobutadiene	ND	10	µg/L							RL-03

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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
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Batch B155267 - SW-846 3510C

Blank (B155267-BLK1)

Prepared & Analyzed: 08/04/16

Hexachloroethane	ND	10	µg/L							
Indeno(1,2,3-cd)pyrene	ND	5.0	µg/L							
Indeno(1,2,3-cd)pyrene (low)	ND	0.20	µg/L							
Isophorone	ND	10	µg/L							
2-Methylnaphthalene	ND	5.0	µg/L							
2-Methylnaphthalene (low)	ND	1.0	µg/L							
2-Methylphenol	ND	10	µg/L							
3/4-Methylphenol	ND	10	µg/L							
Naphthalene	ND	5.0	µg/L							
Naphthalene (low)	ND	1.0	µg/L							
Nitrobenzene	ND	10	µg/L							
2-Nitrophenol	ND	10	µg/L							
4-Nitrophenol	ND	10	µg/L							
Pentachlorophenol	ND	10	µg/L							RL-03
Phenanthrene	ND	5.0	µg/L							
Phenanthrene (low)	ND	0.050	µg/L							
Phenol	ND	10	µg/L							
Pyrene	ND	5.0	µg/L							
Pyrene (low)	ND	1.0	µg/L							
1,2,4-Trichlorobenzene	ND	5.0	µg/L							
2,4,5-Trichlorophenol	ND	10	µg/L							
2,4,6-Trichlorophenol	ND	10	µg/L							

Surrogate: 2-Fluorophenol	107		µg/L	200		53.3	15-110			
Surrogate: Phenol-d6	87.2		µg/L	200		43.6	15-110			
Surrogate: Nitrobenzene-d5	82.3		µg/L	100		82.3	30-130			
Surrogate: Nitrobenzene-d5 (low)	55.6		µg/L	100		55.6	30-130			
Surrogate: 2-Fluorobiphenyl	76.5		µg/L	100		76.5	30-130			
Surrogate: 2-Fluorobiphenyl (low)	57.4		µg/L	100		57.4	30-130			
Surrogate: 2,4,6-Tribromophenol	171		µg/L	200		85.3	15-110			
Surrogate: p-Terphenyl-d14	82.1		µg/L	100		82.1	30-130			
Surrogate: p-Terphenyl-d14 (low)	55.2		µg/L	100		55.2	30-130			

LCS (B155267-BS1)

Prepared & Analyzed: 08/04/16

Acenaphthene	37.9	5.0	µg/L	50.0		75.7	40-140			
Acenaphthene (low)	45.5	7.5	µg/L	50.0		91.0	40-140			
Acenaphthylene	36.9	5.0	µg/L	50.0		73.9	40-140			
Acenaphthylene (low)	46.7	7.5	µg/L	50.0		93.4	40-140			
Acetophenone	38.3	10	µg/L	50.0		76.6	40-140			
Aniline	40.5	5.0	µg/L	50.0		81.0	40-140			
Anthracene	40.2	5.0	µg/L	50.0		80.4	40-140			
Anthracene (low)	51.1	5.0	µg/L	50.0		102	40-140			
Benzo(a)anthracene	38.8	5.0	µg/L	50.0		77.6	40-140			
Benzo(a)anthracene (low)	49.7	1.2	µg/L	50.0		99.4	40-140			
Benzo(a)pyrene	40.3	5.0	µg/L	50.0		80.7	40-140			
Benzo(a)pyrene (low)	49.4	2.5	µg/L	50.0		98.8	40-140			
Benzo(b)fluoranthene	42.6	5.0	µg/L	50.0		85.3	40-140			
Benzo(b)fluoranthene (low)	51.2	1.2	µg/L	50.0		102	40-140			
Benzo(g,h,i)perylene	30.3	5.0	µg/L	50.0		60.6	40-140			
Benzo(g,h,i)perylene (low)	47.1	12	µg/L	50.0		94.2	40-140			
Benzo(k)fluoranthene	41.2	5.0	µg/L	50.0		82.5	40-140			
Benzo(k)fluoranthene (low)	46.5	5.0	µg/L	50.0		93.0	40-140			
Bis(2-chloroethoxy)methane	41.1	10	µg/L	50.0		82.2	40-140			

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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 B155267 - SW-846 3510C										
LCS (B155267-BS1)				Prepared & Analyzed: 08/04/16						
Bis(2-chloroethyl)ether	40.0	10	µg/L	50.0		79.9	40-140			
Bis(2-chloroisopropyl)ether	42.5	10	µg/L	50.0		85.1	40-140			V-20
Bis(2-Ethylhexyl)phthalate	42.4	10	µg/L	50.0		84.8	40-140			
4-Bromophenylphenylether	36.2	10	µg/L	50.0		72.3	40-140			
Butylbenzylphthalate	40.1	10	µg/L	50.0		80.2	40-140			
4-Chloroaniline	45.2	10	µg/L	50.0		90.4	15-140			†
2-Chloronaphthalene	33.2	10	µg/L	50.0		66.4	40-140			
2-Chlorophenol	34.9	10	µg/L	50.0		69.8	30-130			
Chrysene	36.5	5.0	µg/L	50.0		73.0	40-140			
Chrysene (low)	46.0	5.0	µg/L	50.0		92.0	40-140			
Dibenz(a,h)anthracene	31.5	5.0	µg/L	50.0		62.9	40-140			
Dibenz(a,h)anthracene (low)	48.4	5.0	µg/L	50.0		96.8	40-140			
Dibenzofuran	39.8	5.0	µg/L	50.0		79.6	40-140			
Di-n-butylphthalate	40.0	10	µg/L	50.0		79.9	40-140			
1,2-Dichlorobenzene	33.2	5.0	µg/L	50.0		66.5	40-140			
1,3-Dichlorobenzene	32.0	5.0	µg/L	50.0		64.0	40-140			
1,4-Dichlorobenzene	32.5	5.0	µg/L	50.0		65.0	40-140			
3,3-Dichlorobenzidine	42.8	10	µg/L	50.0		85.6	40-140			
2,4-Dichlorophenol	36.9	10	µg/L	50.0		73.7	30-130			
Diethylphthalate	41.8	10	µg/L	50.0		83.5	40-140			
2,4-Dimethylphenol	38.0	10	µg/L	50.0		75.9	30-130			
Dimethylphthalate	40.7	10	µg/L	50.0		81.3	40-140			
2,4-Dinitrophenol	33.4	10	µg/L	50.0		66.8	15-140			†
2,4-Dinitrotoluene	44.2	10	µg/L	50.0		88.3	40-140			
2,6-Dinitrotoluene	42.8	10	µg/L	50.0		85.7	40-140			
Di-n-octylphthalate	49.3	10	µg/L	50.0		98.6	40-140			
1,2-Diphenylhydrazine (as Azobenzene)	40.7	10	µg/L	50.0		81.4	40-140			
Fluoranthene	43.0	5.0	µg/L	50.0		86.1	40-140			
Fluoranthene (low)	49.8	12	µg/L	50.0		99.6	40-140			
Fluorene	39.6	5.0	µg/L	50.0		79.3	40-140			
Fluorene (low)	48.6	25	µg/L	50.0		97.2	40-140			
Hexachlorobenzene	35.7	10	µg/L	50.0		71.5	40-140			
Hexachlorobutadiene	33.2	10	µg/L	50.0		66.5	40-140			
Hexachloroethane	32.5	10	µg/L	50.0		65.0	40-140			
Indeno(1,2,3-cd)pyrene	31.6	5.0	µg/L	50.0		63.1	40-140			
Indeno(1,2,3-cd)pyrene (low)	48.9	5.0	µg/L	50.0		97.8	40-140			
Isophorone	43.1	10	µg/L	50.0		86.2	40-140			
2-Methylnaphthalene	37.9	5.0	µg/L	50.0		75.8	40-140			
2-Methylnaphthalene (low)	43.1	25	µg/L	50.0		86.2	40-140			
2-Methylphenol	35.1	10	µg/L	50.0		70.3	30-130			
3/4-Methylphenol	36.4	10	µg/L	50.0		72.8	30-130			
Naphthalene	35.5	5.0	µg/L	50.0		71.1	40-140			
Naphthalene (low)	41.3	25	µg/L	50.0		82.6	40-140			
Nitrobenzene	38.8	10	µg/L	50.0		77.5	40-140			
2-Nitrophenol	38.0	10	µg/L	50.0		76.0	30-130			
4-Nitrophenol	30.3	10	µg/L	50.0		60.6	15-140			†
Pentachlorophenol	36.4	10	µg/L	50.0		72.7	30-130			
Phenanthrene	39.4	5.0	µg/L	50.0		78.8	40-140			
Phenanthrene (low)	46.0	1.2	µg/L	50.0		91.9	40-140			
Phenol	20.2	10	µg/L	50.0		40.5	15-140			†
Pyrene	36.5	5.0	µg/L	50.0		73.0	40-140			
Pyrene (low)	49.2	25	µg/L	50.0		98.3	40-140			

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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 B155267 - SW-846 3510C										
LCS (B155267-BS1)				Prepared & Analyzed: 08/04/16						
1,2,4-Trichlorobenzene	33.3	5.0	µg/L	50.0		66.5	40-140			
2,4,5-Trichlorophenol	37.8	10	µg/L	50.0		75.6	30-130			
2,4,6-Trichlorophenol	37.5	10	µg/L	50.0		75.1	30-130			
Surrogate: 2-Fluorophenol	108		µg/L	200		53.9	15-110			
Surrogate: Phenol-d6	86.6		µg/L	200		43.3	15-110			
Surrogate: Nitrobenzene-d5	82.3		µg/L	100		82.3	30-130			
Surrogate: Nitrobenzene-d5 (low)	56.3		µg/L	100		56.3	30-130			
Surrogate: 2-Fluorobiphenyl	75.8		µg/L	100		75.8	30-130			
Surrogate: 2-Fluorobiphenyl (low)	85.8		µg/L	100		85.8	30-130			
Surrogate: 2,4,6-Tribromophenol	189		µg/L	200		94.5	15-110			
Surrogate: p-Terphenyl-d14	78.1		µg/L	100		78.1	30-130			
Surrogate: p-Terphenyl-d14 (low)	72.4		µg/L	100		72.4	30-130			
LCS Dup (B155267-BSD1)				Prepared & Analyzed: 08/04/16						
Acenaphthene	36.8	5.0	µg/L	50.0		73.6	40-140	2.81	20	
Acenaphthene (low)	46.1	7.5	µg/L	50.0		92.2	40-140	1.26	20	
Acenaphthylene	35.7	5.0	µg/L	50.0		71.4	40-140	3.42	20	
Acenaphthylene (low)	47.4	7.5	µg/L	50.0		94.8	40-140	1.49	20	
Acetophenone	37.5	10	µg/L	50.0		75.0	40-140	2.06	20	
Aniline	42.2	5.0	µg/L	50.0		84.4	40-140	4.06	20	
Anthracene	39.6	5.0	µg/L	50.0		79.3	40-140	1.40	20	
Anthracene (low)	52.4	5.0	µg/L	50.0		105	40-140	2.51	20	
Benzo(a)anthracene	39.1	5.0	µg/L	50.0		78.2	40-140	0.693	20	
Benzo(a)anthracene (low)	51.1	1.2	µg/L	50.0		102	40-140	2.78	20	
Benzo(a)pyrene	39.4	5.0	µg/L	50.0		78.7	40-140	2.43	20	
Benzo(a)pyrene (low)	51.0	2.5	µg/L	50.0		102	40-140	3.09	20	
Benzo(b)fluoranthene	42.2	5.0	µg/L	50.0		84.4	40-140	1.06	20	
Benzo(b)fluoranthene (low)	53.0	1.2	µg/L	50.0		106	40-140	3.36	20	
Benzo(g,h,i)perylene	26.7	5.0	µg/L	50.0		53.4	40-140	12.7	20	
Benzo(g,h,i)perylene (low)	49.0	12	µg/L	50.0		98.0	40-140	3.95	20	
Benzo(k)fluoranthene	40.3	5.0	µg/L	50.0		80.7	40-140	2.21	20	
Benzo(k)fluoranthene (low)	47.9	5.0	µg/L	50.0		95.8	40-140	2.97	20	
Bis(2-chloroethoxy)methane	40.7	10	µg/L	50.0		81.5	40-140	0.929	20	
Bis(2-chloroethyl)ether	38.2	10	µg/L	50.0		76.4	40-140	4.43	20	
Bis(2-chloroisopropyl)ether	42.8	10	µg/L	50.0		85.5	40-140	0.563	20	V-20
Bis(2-Ethylhexyl)phthalate	43.6	10	µg/L	50.0		87.3	40-140	2.86	20	
4-Bromophenylphenylether	37.6	10	µg/L	50.0		75.3	40-140	4.07	20	
Butylbenzylphthalate	40.6	10	µg/L	50.0		81.3	40-140	1.39	20	
4-Chloroaniline	44.4	10	µg/L	50.0		88.8	15-140	1.76	20	†
2-Chloronaphthalene	30.2	10	µg/L	50.0		60.5	40-140	9.27	20	
2-Chlorophenol	33.5	10	µg/L	50.0		67.0	30-130	4.04	20	
Chrysene	36.5	5.0	µg/L	50.0		73.1	40-140	0.0821	20	
Chrysene (low)	47.1	5.0	µg/L	50.0		94.2	40-140	2.31	20	
Dibenz(a,h)anthracene	28.7	5.0	µg/L	50.0		57.3	40-140	9.31	20	
Dibenz(a,h)anthracene (low)	50.4	5.0	µg/L	50.0		101	40-140	4.10	20	
Dibenzofuran	38.4	5.0	µg/L	50.0		76.7	40-140	3.69	20	
Di-n-butylphthalate	41.0	10	µg/L	50.0		81.9	40-140	2.47	20	
1,2-Dichlorobenzene	32.1	5.0	µg/L	50.0		64.2	40-140	3.52	20	
1,3-Dichlorobenzene	30.9	5.0	µg/L	50.0		61.8	40-140	3.50	20	
1,4-Dichlorobenzene	31.4	5.0	µg/L	50.0		62.8	40-140	3.44	20	
3,3-Dichlorobenzidine	43.4	10	µg/L	50.0		86.8	40-140	1.42	20	
2,4-Dichlorophenol	35.6	10	µg/L	50.0		71.3	30-130	3.34	20	

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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 B155267 - SW-846 3510C										
LCS Dup (B155267-BSD1)				Prepared & Analyzed: 08/04/16						
Diethylphthalate	41.5	10	µg/L	50.0		83.1	40-140	0.504	20	
2,4-Dimethylphenol	36.4	10	µg/L	50.0		72.7	30-130	4.31	20	
Dimethylphthalate	40.5	10	µg/L	50.0		80.9	40-140	0.518	20	
2,4-Dinitrophenol	34.6	10	µg/L	50.0		69.3	15-140	3.70	20	†
2,4-Dinitrotoluene	41.6	10	µg/L	50.0		83.2	40-140	5.97	20	
2,6-Dinitrotoluene	41.7	10	µg/L	50.0		83.3	40-140	2.82	20	
Di-n-octylphthalate	48.2	10	µg/L	50.0		96.4	40-140	2.26	20	
1,2-Diphenylhydrazine (as Azobenzene)	42.2	10	µg/L	50.0		84.3	40-140	3.55	20	
Fluoranthene	42.4	5.0	µg/L	50.0		84.8	40-140	1.50	20	
Fluoranthene (low)	51.4	12	µg/L	50.0		103	40-140	3.01	20	
Fluorene	38.6	5.0	µg/L	50.0		77.1	40-140	2.76	20	
Fluorene (low)	49.4	25	µg/L	50.0		98.8	40-140	1.63	20	
Hexachlorobenzene	36.5	10	µg/L	50.0		73.0	40-140	2.10	20	
Hexachlorobutadiene	32.2	10	µg/L	50.0		64.5	40-140	3.05	20	
Hexachloroethane	32.5	10	µg/L	50.0		65.0	40-140	0.00	20	
Indeno(1,2,3-cd)pyrene	28.3	5.0	µg/L	50.0		56.6	40-140	10.9	20	
Indeno(1,2,3-cd)pyrene (low)	50.9	5.0	µg/L	50.0		102	40-140	4.06	20	
Isophorone	42.7	10	µg/L	50.0		85.4	40-140	0.956	20	
2-Methylnaphthalene	36.5	5.0	µg/L	50.0		73.0	40-140	3.77	20	
2-Methylnaphthalene (low)	43.2	25	µg/L	50.0		86.4	40-140	0.232	20	
2-Methylphenol	34.1	10	µg/L	50.0		68.1	30-130	3.09	20	
3/4-Methylphenol	35.6	10	µg/L	50.0		71.1	30-130	2.33	20	
Naphthalene	33.8	5.0	µg/L	50.0		67.7	40-140	4.87	20	
Naphthalene (low)	41.2	25	µg/L	50.0		82.4	40-140	0.303	20	
Nitrobenzene	37.2	10	µg/L	50.0		74.4	40-140	4.08	20	
2-Nitrophenol	36.4	10	µg/L	50.0		72.7	30-130	4.46	20	
4-Nitrophenol	26.1	10	µg/L	50.0		52.2	15-140	14.9	20	†
Pentachlorophenol	35.2	10	µg/L	50.0		70.4	30-130	3.19	20	
Phenanthrene	39.1	5.0	µg/L	50.0		78.2	40-140	0.714	20	
Phenanthrene (low)	47.4	1.2	µg/L	50.0		94.7	40-140	3.00	20	
Phenol	19.1	10	µg/L	50.0		38.2	15-140	5.90	20	†
Pyrene	35.9	5.0	µg/L	50.0		71.9	40-140	1.52	20	
Pyrene (low)	50.4	25	µg/L	50.0		101	40-140	2.61	20	
1,2,4-Trichlorobenzene	32.1	5.0	µg/L	50.0		64.3	40-140	3.46	20	
2,4,5-Trichlorophenol	36.7	10	µg/L	50.0		73.3	30-130	3.06	20	
2,4,6-Trichlorophenol	37.0	10	µg/L	50.0		74.0	30-130	1.50	20	
Surrogate: 2-Fluorophenol	99.8		µg/L	200		49.9	15-110			
Surrogate: Phenol-d6	79.6		µg/L	200		39.8	15-110			
Surrogate: Nitrobenzene-d5	77.4		µg/L	100		77.4	30-130			
Surrogate: Nitrobenzene-d5 (low)	73.9		µg/L	100		73.9	30-130			
Surrogate: 2-Fluorobiphenyl	74.3		µg/L	100		74.3	30-130			
Surrogate: 2-Fluorobiphenyl (low)	82.3		µg/L	100		82.3	30-130			
Surrogate: 2,4,6-Tribromophenol	176		µg/L	200		87.8	15-110			
Surrogate: p-Terphenyl-d14	74.5		µg/L	100		74.5	30-130			
Surrogate: p-Terphenyl-d14 (low)	71.6		µg/L	100		71.6	30-130			

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QUALITY CONTROL
Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B155311 - SW-846 3510C
Blank (B155311-BLK1)

Prepared: 08/04/16 Analyzed: 08/05/16

Aroclor-1016	ND	0.20	µg/L							
Aroclor-1016 2C]	ND	0.20	µg/L							
Aroclor-1221	ND	0.20	µg/L							
Aroclor-1221 2C]	ND	0.20	µg/L							
Aroclor-1232	ND	0.20	µg/L							
Aroclor-1232 2C]	ND	0.20	µg/L							
Aroclor-1242	ND	0.20	µg/L							
Aroclor-1242 2C]	ND	0.20	µg/L							
Aroclor-1248	ND	0.20	µg/L							
Aroclor-1248 2C]	ND	0.20	µg/L							
Aroclor-1254	ND	0.20	µg/L							
Aroclor-1254 2C]	ND	0.20	µg/L							
Aroclor-1260	ND	0.20	µg/L							
Aroclor-1260 2C]	ND	0.20	µg/L							
Aroclor-1262	ND	0.20	µg/L							
Aroclor-1262 2C]	ND	0.20	µg/L							
Aroclor-1268	ND	0.20	µg/L							
Aroclor-1268 2C]	ND	0.20	µg/L							
Surrogate: Decachlorobiphenyl	1.33		µg/L	2.00		66.4	30-150			
Surrogate: Decachlorobiphenyl 2C]	1.45		µg/L	2.00		72.4	30-150			
Surrogate: Tetrachloro-m-xylene	1.14		µg/L	2.00		57.2	30-150			
Surrogate: Tetrachloro-m-xylene 2C]	1.20		µg/L	2.00		59.9	30-150			

LCS (B155311-BS1)

Prepared: 08/04/16 Analyzed: 08/05/16

Aroclor-1016	0.35	0.20	µg/L	0.500		69.6	40-140			
Aroclor-1016 2C]	0.38	0.20	µg/L	0.500		76.0	40-140			
Aroclor-1260	0.37	0.20	µg/L	0.500		73.6	40-140			
Aroclor-1260 2C]	0.40	0.20	µg/L	0.500		80.5	40-140			
Surrogate: Decachlorobiphenyl	1.35		µg/L	2.00		67.5	30-150			
Surrogate: Decachlorobiphenyl 2C]	1.47		µg/L	2.00		73.4	30-150			
Surrogate: Tetrachloro-m-xylene	1.14		µg/L	2.00		57.0	30-150			
Surrogate: Tetrachloro-m-xylene 2C]	1.21		µg/L	2.00		60.7	30-150			

LCS Dup (B155311-BSD1)

Prepared: 08/04/16 Analyzed: 08/05/16

Aroclor-1016	0.35	0.20	µg/L	0.500		69.0	40-140	0.906	20	
Aroclor-1016 2C]	0.40	0.20	µg/L	0.500		79.2	40-140	4.09	20	
Aroclor-1260	0.35	0.20	µg/L	0.500		70.9	40-140	3.64	20	
Aroclor-1260 2C]	0.40	0.20	µg/L	0.500		79.1	40-140	1.78	20	
Surrogate: Decachlorobiphenyl	1.30		µg/L	2.00		65.2	30-150			
Surrogate: Decachlorobiphenyl 2C]	1.42		µg/L	2.00		71.0	30-150			
Surrogate: Tetrachloro-m-xylene	1.09		µg/L	2.00		54.4	30-150			
Surrogate: Tetrachloro-m-xylene 2C]	1.15		µg/L	2.00		57.6	30-150			

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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
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Batch B155346 - SW-846 3005A
Blank (B155346-BLK1)

Prepared: 08/05/16 Analyzed: 08/08/16

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							
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 (B155346-BS1)

Prepared: 08/05/16 Analyzed: 08/08/16

Antimony	260	5.0	µg/L	250		104	80-120			
Arsenic	267	2.0	µg/L	250		107	80-120			
Barium	255	50	µg/L	250		102	80-120			
Beryllium	283	2.0	µg/L	250		113	80-120			
Cadmium	274	2.5	µg/L	250		110	80-120			
Chromium	260	5.0	µg/L	250		104	80-120			
Lead	259	5.0	µg/L	250		104	80-120			
Nickel	251	25	µg/L	250		101	80-120			
Selenium	288	25	µg/L	250		115	80-120			
Silver	243	2.5	µg/L	250		97.1	80-120			
Thallium	247	1.0	µg/L	250		98.7	80-120			
Vanadium	259	25	µg/L	250		103	80-120			
Zinc	300	50	µg/L	250		120	80-120			

LCS Dup (B155346-BSD1)

Prepared: 08/05/16 Analyzed: 08/08/16

Antimony	259	5.0	µg/L	250		103	80-120	0.557	20	
Arsenic	270	2.0	µg/L	250		108	80-120	1.18	20	
Barium	254	50	µg/L	250		102	80-120	0.0113	20	
Beryllium	288	2.0	µg/L	250		115	80-120	1.99	20	
Cadmium	278	2.5	µg/L	250		111	80-120	1.39	20	
Chromium	258	5.0	µg/L	250		103	80-120	0.776	20	
Lead	261	5.0	µg/L	250		104	80-120	0.560	20	
Nickel	249	25	µg/L	250		99.7	80-120	0.853	20	
Selenium	288	25	µg/L	250		115	80-120	0.170	20	
Silver	246	2.5	µg/L	250		98.5	80-120	1.46	20	
Thallium	248	1.0	µg/L	250		99.3	80-120	0.631	20	
Vanadium	258	25	µg/L	250		103	80-120	0.278	20	
Zinc	298	50	µg/L	250		119	80-120	0.902	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 B155356 - SW-846 7470A Prep										
Blank (B155356-BLK1)				Prepared: 08/05/16 Analyzed: 08/08/16						
Mercury	ND	0.00010	mg/L							
LCS (B155356-BS1)				Prepared: 08/05/16 Analyzed: 08/08/16						
Mercury	0.00177	0.00010	mg/L	0.00200		88.3	80-120			
LCS Dup (B155356-BSD1)				Prepared: 08/05/16 Analyzed: 08/08/16						
Mercury	0.00186	0.00010	mg/L	0.00200		93.0	80-120	5.16	20	
Batch B155417 - SW-846 3005A										
Blank (B155417-BLK1)				Prepared: 08/05/16 Analyzed: 08/08/16						
Hardness	ND	3.0	mg/L							

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QUALITY CONTROL

Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B155358 - SW-846 3005A Dissolved

Blank (B155358-BLK1)

Prepared: 08/05/16 Analyzed: 08/08/16

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							
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 (B155358-BS1)

Prepared: 08/05/16 Analyzed: 08/08/16

Antimony	267	5.0	µg/L	250		107	80-120			
Arsenic	267	2.0	µg/L	250		107	80-120			
Barium	252	50	µg/L	250		101	80-120			
Beryllium	262	2.0	µg/L	250		105	80-120			
Cadmium	270	2.5	µg/L	250		108	80-120			
Chromium	257	5.0	µg/L	250		103	80-120			
Lead	260	5.0	µg/L	250		104	80-120			
Nickel	248	25	µg/L	250		99.2	80-120			
Selenium	295	25	µg/L	250		118	80-120			
Silver	237	2.5	µg/L	250		94.8	80-120			
Thallium	246	1.0	µg/L	250		98.2	80-120			
Vanadium	256	25	µg/L	250		102	80-120			
Zinc	297	50	µg/L	250		119	80-120			

LCS Dup (B155358-BSD1)

Prepared: 08/05/16 Analyzed: 08/08/16

Antimony	272	5.0	µg/L	250		109	80-120	2.04	20	
Arsenic	267	2.0	µg/L	250		107	80-120	0.0450	20	
Barium	253	50	µg/L	250		101	80-120	0.610	20	
Beryllium	267	2.0	µg/L	250		107	80-120	1.79	20	
Cadmium	275	2.5	µg/L	250		110	80-120	1.96	20	
Chromium	258	5.0	µg/L	250		103	80-120	0.168	20	
Lead	261	5.0	µg/L	250		104	80-120	0.331	20	
Nickel	249	25	µg/L	250		99.6	80-120	0.453	20	
Selenium	293	25	µg/L	250		117	80-120	0.621	20	
Silver	239	2.5	µg/L	250		95.7	80-120	0.928	20	
Thallium	244	1.0	µg/L	250		97.6	80-120	0.668	20	
Vanadium	256	25	µg/L	250		102	80-120	0.197	20	
Zinc	297	50	µg/L	250		119	80-120	0.0182	20	

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QUALITY CONTROL
Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B155358 - SW-846 3005A Dissolved

Duplicate (B155358-DUP1)		Source: 16H0199-01		Prepared: 08/05/16 Analyzed: 08/08/16						
Antimony	ND	20	µg/L		ND			NC	20	
Arsenic	ND	8.0	µg/L		ND			NC	20	
Barium	478	200	µg/L		470			1.77	20	
Beryllium	ND	8.0	µg/L		ND			NC	20	
Cadmium	ND	10	µg/L		ND			NC	20	
Chromium	ND	20	µg/L		ND			NC	20	
Lead	ND	20	µg/L		ND			NC	20	
Nickel	ND	100	µg/L		ND			NC	20	
Selenium	ND	100	µg/L		ND			NC	20	
Silver	ND	10	µg/L		ND			NC	20	
Thallium	ND	4.0	µg/L		ND			NC	20	
Vanadium	ND	100	µg/L		ND			NC	20	
Zinc	ND	200	µg/L		ND			NC	20	

Matrix Spike (B155358-MS1)		Source: 16H0199-01		Prepared: 08/05/16 Analyzed: 08/08/16						
Antimony	261	20	µg/L	250	ND	104	75-125			
Arsenic	255	8.0	µg/L	250	ND	102	75-125			
Barium	726	200	µg/L	250	470	102	75-125			
Beryllium	288	8.0	µg/L	250	ND	115	75-125			
Cadmium	244	10	µg/L	250	ND	97.4	75-125			
Chromium	239	20	µg/L	250	ND	95.8	75-125			
Lead	248	20	µg/L	250	ND	99.2	75-125			
Nickel	222	100	µg/L	250	ND	88.8	75-125			
Selenium	241	100	µg/L	250	ND	96.3	75-125			
Silver	227	10	µg/L	250	ND	90.6	75-125			
Thallium	208	4.0	µg/L	250	ND	83.0	75-125			
Vanadium	247	100	µg/L	250	ND	99.0	75-125			
Zinc	250	200	µg/L	250	ND	99.8	75-125			

Batch B155372 - SW-846 7470A Prep

Blank (B155372-BLK1)		Prepared & Analyzed: 08/05/16								
Mercury	ND	0.00010	mg/L							
LCS (B155372-BS1)		Prepared & Analyzed: 08/05/16								
Mercury	0.00184	0.00010	mg/L	0.00200		92.1	80-120			
LCS Dup (B155372-BSD1)		Prepared & Analyzed: 08/05/16								
Mercury	0.00187	0.00010	mg/L	0.00200		93.3	80-120	1.26	20	
Duplicate (B155372-DUP1)		Source: 16H0199-01		Prepared & Analyzed: 08/05/16						
Mercury	ND	0.00010	mg/L		ND			NC	20	

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QUALITY CONTROL
Metals Analyses (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch B155372 - SW-846 7470A Prep
Matrix Spike (B155372-MS1)
Source: 16H0199-01

Prepared & Analyzed: 08/05/16

Mercury	0.00186	0.00010	mg/L	0.00200	ND	93.2	75-125			
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Batch B155417 - SW-846 3005A
Blank (B155417-BLK1)

Prepared: 08/05/16 Analyzed: 08/08/16

Hardness	ND	3.0	mg/L							
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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B155306 - SM19-22 4500 NH3 C										
Blank (B155306-BLK1)				Prepared: 08/04/16 Analyzed: 08/05/16						
Ammonia as N	ND	0.30	mg/L							
LCS (B155306-BS1)				Prepared: 08/04/16 Analyzed: 08/05/16						
Ammonia as N	4.8	0.30	mg/L	5.00		95.2	82.1-110			
LCS Dup (B155306-BSD1)				Prepared: 08/04/16 Analyzed: 08/05/16						
Ammonia as N	4.8	0.30	mg/L	5.00		95.2	82.1-110	0.00	7.33	
Batch B155318 - SM21-22 4500 H B										
LCS (B155318-BS1)				Prepared & Analyzed: 08/04/16						
pH	6.03		pH Units	6.00		100	98.5-110			
Batch B155321 - SM21-22 4500 CL G										
Blank (B155321-BLK1)				Prepared & Analyzed: 08/04/16						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B155321-BS1)				Prepared & Analyzed: 08/04/16						
Chlorine, Residual	1.3	0.020	mg/L	1.20		112	88.1-128			
LCS Dup (B155321-BSD1)				Prepared & Analyzed: 08/04/16						
Chlorine, Residual	1.3	0.020	mg/L	1.20		110	88.1-128	0.997	5	
Batch B155323 - SW-846 7196A										
Blank (B155323-BLK1)				Prepared & Analyzed: 08/04/16						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B155323-BS1)				Prepared & Analyzed: 08/04/16						
Hexavalent Chromium	0.099	0.0040	mg/L	0.100		99.4	80-120			
LCS Dup (B155323-BSD1)				Prepared & Analyzed: 08/04/16						
Hexavalent Chromium	0.099	0.0040	mg/L	0.100		99.4	80-120	0.00	20	
Batch B155341 - SM21-22 2540B										
Blank (B155341-BLK1)				Prepared & Analyzed: 08/05/16						
Total Solids	ND	10	mg/L							

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B155341 - SM21-22 2540B										
LCS (B155341-BS1)				Prepared & Analyzed: 08/05/16						
Total Solids	236	10	mg/L	200		118	65.3-127			
Duplicate (B155341-DUP1)				Source: 16H0199-01		Prepared & Analyzed: 08/05/16				
Total Solids	7400	10	mg/L		6900			5.99	*	5 R-02
Batch B155386 - SM21-22 2320B										
Blank (B155386-BLK1)				Prepared & Analyzed: 08/05/16						
Alkalinity	ND	1.0	mg/L							
LCS (B155386-BS1)				Prepared & Analyzed: 08/05/16						
Alkalinity	28		mg/L	27.8		98.9	85.7-110			
LCS Dup (B155386-BSD1)				Prepared & Analyzed: 08/05/16						
Alkalinity	28		mg/L	27.8		98.9	85.7-110	0.00	6.6	
Batch B155395 - SM21-22 2540D										
Blank (B155395-BLK1)				Prepared & Analyzed: 08/05/16						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B155395-BS1)				Prepared & Analyzed: 08/05/16						
Total Suspended Solids	164	10	mg/L	200		82.0	70.1-116			
Batch B155413 - SM21-22 4500 CL B										
Blank (B155413-BLK1)				Prepared & Analyzed: 08/05/16						
Chloride	ND	1.0	mg/L							
LCS (B155413-BS1)				Prepared & Analyzed: 08/05/16						
Chloride	11	1.0	mg/L	10.6		102	87.5-112			
LCS Dup (B155413-BSD1)				Prepared & Analyzed: 08/05/16						
Chloride	11	1.0	mg/L	10.6		102	87.5-112	0.00	8.07	
Batch B155424 - EPA 420.1										
Blank (B155424-BLK1)				Prepared & Analyzed: 08/05/16						
Phenol	ND	0.050	mg/L							

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B155424 - EPA 420.1										
LCS (B155424-BS1)				Prepared & Analyzed: 08/05/16						
Phenol	0.49	0.050	mg/L	0.500		98.4	78.8-123			
LCS Dup (B155424-BSD1)				Prepared & Analyzed: 08/05/16						
Phenol	0.48	0.050	mg/L	0.500		96.8	78.8-123	1.61	11.3	
Duplicate (B155424-DUP1)				Source: 16H0199-01		Prepared & Analyzed: 08/05/16				
Phenol	0.13	0.050	mg/L		0.15			16.5	35.7	
Matrix Spike (B155424-MS1)				Source: 16H0199-01		Prepared & Analyzed: 08/05/16				
Phenol	0.52	0.050	mg/L	0.500	0.15	73.8	45.1-136			
Batch B155457 - EPA 1664B										
Blank (B155457-BLK1)				Prepared & Analyzed: 08/08/16						
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B155457-BS1)				Prepared & Analyzed: 08/08/16						
Silica Gel Treated HEM (SGT-HEM)	12		mg/L	10.0		115	64-132			
Batch B155493 - SM21-22 4500 CN E										
Blank (B155493-BLK1)				Prepared & Analyzed: 08/08/16						
Cyanide	ND	0.010	mg/L							
LCS (B155493-BS1)				Prepared & Analyzed: 08/08/16						
Cyanide	0.70	0.010	mg/L	0.704		99.6	78.4-112			
LCS Dup (B155493-BSD1)				Prepared & Analyzed: 08/08/16						
Cyanide	0.70	0.010	mg/L	0.704		98.8	78.4-112	0.814	5.14	
Batch B155519 - SM21-22 2510B										
Blank (B155519-BLK1)				Prepared & Analyzed: 08/08/16						
Specific conductance	ND	2.0	µmhos/cm							
LCS (B155519-BS1)				Prepared & Analyzed: 08/08/16						
Specific conductance	230		µmhos/cm	234		99.6	90.6-110			
Duplicate (B155519-DUP1)				Source: 16H0199-01		Prepared & Analyzed: 08/08/16				
Specific conductance	12000	2.0	µmhos/cm		12000			0.0917	14.4	

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QUALITY CONTROL
Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Dissolved) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B155342 - SM21-22 2540C										
Blank (B155342-BLK1)				Prepared & Analyzed: 08/05/16						
Total Dissolved Solids	ND	10	mg/L							
LCS (B155342-BS1)				Prepared & Analyzed: 08/05/16						
Total Dissolved Solids	280	10	mg/L	293		94.5	58.2-116			
Duplicate (B155342-DUP1)				Prepared & Analyzed: 08/05/16						
Source: 16H0199-02										
Total Dissolved Solids	7000	10	mg/L		6400			9.64	*	5 R-02

IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS

Lab Sample ID: B155311-BS1 Date(s) Analyzed: 08/05/2016 08/05/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.35	
	2	0.00	0.00	0.00	0.38	9
Aroclor-1260	1	0.00	0.00	0.00	0.37	
	2	0.00	0.00	0.00	0.40	8

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

SW-846 8082A

LCS Dup

Lab Sample ID: B155311-BSD1 Date(s) Analyzed: 08/05/2016 08/05/2016

Instrument ID (1): Instrument ID (2):

GC Column (1): ID: (mm) GC Column (2): ID: (mm)

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%D
			FROM	TO		
Aroclor-1016	1	0.00	0.00	0.00	0.35	
	2	0.00	0.00	0.00	0.40	15
Aroclor-1260	1	0.00	0.00	0.00	0.35	
	2	0.00	0.00	0.00	0.40	12

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
DL	Method Detection Limit
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-05	Sample required a dilution due to high internal standard recovery of the lesser diluted digestion, reporting limit is elevated.
H-03	Sample received after recommended holding time was exceeded.
H-05	Holding time was exceeded. pH analysis should be performed immediately at time of sampling. Nominal 15 minute holding time was exceeded.
L-14	Compound classified by MA CAM as difficult with acceptable recoveries of 40-160%. Recovery does not meet 70-130% criteria but does meet difficult compound criteria.
R-02	Duplicate RPD is outside of control limits. Outlier can be attributed to sample non-homogeneity encountered during sample prep.
RL-03	Elevated reporting limit based on lowest point in calibration.
	Requested reporting limit not met.
RL-07	Elevated reporting limit based on lowest point in calibration.
	MA CAM reporting limit not met.
V-05	Continuing calibration did not meet method specifications and was biased on the low side for this compound.
	Increased uncertainty is associated with the reported value which is likely to be biased on the low side.
V-16	Response factor is less than method specified minimum acceptable value. Reduced precision and accuracy may be associated with reported result.
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.

CERTIFICATIONS
Certified Analyses included in this Report

Analyte	Certifications
<i>EPA 420.1 in Water</i>	
Phenol	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM 5310C in Water</i>	
Total Organic Carbon	NY,NC,CT,RI,ME,MA,VA
<i>SM19-22 4500 NH3 C in Water</i>	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
<i>SM21-22 2320B in Water</i>	
Alkalinity	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2340B in Water</i>	
Hardness	CT,MA,NH,NY
Hardness	CT,MA,NH,NY
<i>SM21-22 2510B in Water</i>	
Specific conductance	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2540B in Water</i>	
Total Solids	NY,CT,RI,NH,NC,ME,VA
<i>SM21-22 2540C in Water</i>	
Total Dissolved Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 2540D in Water</i>	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 4500 CL B in Water</i>	
Chloride	NH,CT,MA,NY,RI,NC,ME,VA
<i>SM21-22 4500 CL G in Water</i>	
Chlorine, Residual	CT,MA,RI,ME
<i>SM21-22 4500 CN E in Water</i>	
Cyanide	CT,MA,NH,NY,RI,NC,ME,VA
<i>SM21-22 4500 H B in Water</i>	
pH	CT,MA,RI
<i>SW-846 6020A-B in Water</i>	
Antimony	CT,NH,NY,ME,VA,NC
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,NC,ME,VA
Barium	MA,NY,CT,NC,NH,ME,VA
Barium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,ME,VA,NC
Beryllium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,NC,ME,VA
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Chromium	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,NC,ME,VA
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,NC,ME,VA

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 6020A-B in Water</i>	
Nickel	CT,NH,NY,ME,VA,NC
Selenium	CT,NH,NY,NC,ME,VA
Selenium	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Silver	CT,NC,NH,NY,ME,VA
Thallium	CT,NH,NY,ME,VA,NC
Thallium	CT,NH,NY,NC,ME,VA
Vanadium	CT,NH,NY,NC,ME,VA
Vanadium	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,NC,ME,VA
<i>SW-846 7196A in Water</i>	
Hexavalent Chromium	CT,NH,NY,NC,ME,VA
<i>SW-846 7470A in Water</i>	
Mercury	CT,NH,NY,NC,ME,VA
Mercury	CT,NH,NY,NC,ME,VA
<i>SW-846 8082A in Water</i>	
Aroclor-1016	CT,NH,NY,NC,ME,VA
Aroclor-1016 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1221	CT,NH,NY,NC,ME,VA
Aroclor-1221 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1232	CT,NH,NY,NC,ME,VA
Aroclor-1232 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1242	CT,NH,NY,NC,ME,VA
Aroclor-1242 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1248	CT,NH,NY,NC,ME,VA
Aroclor-1248 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1254	CT,NH,NY,NC,ME,VA
Aroclor-1254 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1260	CT,NH,NY,NC,ME,VA
Aroclor-1260 2C]	CT,NH,NY,NC,ME,VA
Aroclor-1262	NH,NY,NC,ME,VA
Aroclor-1262 2C]	NH,NY,NC,ME,VA
Aroclor-1268	NH,NY,NC,ME,VA
Aroclor-1268 2C]	NH,NY,NC,ME,VA
<i>SW-846 8260C in Water</i>	
Acetone	CT,NH,NY,ME
tert-Amyl Methyl Ether (TAME)	NH,NY,ME
Benzene	CT,NH,NY,ME
Bromobenzene	ME
Bromochloromethane	NH,NY,ME
Bromodichloromethane	CT,NH,NY,ME
Bromoform	CT,NH,NY,ME
Bromomethane	CT,NH,NY,ME
2-Butanone (MEK)	CT,NH,NY,ME

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
n-Butylbenzene	NY,ME
sec-Butylbenzene	NY,ME
tert-Butylbenzene	NY,ME
tert-Butyl Ethyl Ether (TBEE)	NH,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
Dibromomethane	NH,NY,ME
1,2-Dichlorobenzene	CT,NY,ME
1,3-Dichlorobenzene	CT,NH,NY,ME
1,4-Dichlorobenzene	CT,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
Diisopropyl Ether (DIPE)	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

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8260C in Water</i>	
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
1,2,4-Trimethylbenzene	NY,ME
1,3,5-Trimethylbenzene	NY,ME
Vinyl Chloride	CT,NH,NY,ME
m+p Xylene	CT,NH,NY,ME
o-Xylene	CT,NH,NY,ME
<i>SW-846 8270D in Water</i>	
Aniline	CT,NY
Bis(2-chloroethoxy)methane	CT,NY,NH
Bis(2-chloroethyl)ether	CT,NY,NH
Bis(2-chloroisopropyl)ether	CT,NY,NH
Bis(2-Ethylhexyl)phthalate	CT,NY,NH
4-Bromophenylphenylether	CT,NY,NH
Butylbenzylphthalate	CT,NY,NH
4-Chloroaniline	CT,NY,NH
2-Chloronaphthalene	CT,NY,NH
2-Chlorophenol	CT,NY,NH
Dibenzofuran	CT,NY,NH
Di-n-butylphthalate	CT,NY,NH
1,2-Dichlorobenzene	CT,NY,NH
1,3-Dichlorobenzene	CT,NY,NH
1,4-Dichlorobenzene	CT,NY,NH
3,3-Dichlorobenzidine	CT,NY,NH
2,4-Dichlorophenol	CT,NY,NH
Diethylphthalate	CT,NY,NH
2,4-Dimethylphenol	CT,NY,NH
Dimethylphthalate	CT,NY,NH
2,4-Dinitrophenol	CT,NY,NH
2,4-Dinitrotoluene	CT,NY,NH
2,6-Dinitrotoluene	CT,NY,NH
Di-n-octylphthalate	CT,NY,NH
Hexachlorobenzene	CT,NY,NH
Hexachlorobutadiene	CT,NY,NH
Hexachloroethane	CT,NY,NH
Isophorone	CT,NY,NH
2-Methylphenol	CT,NY,NH
3/4-Methylphenol	CT,NY,NH
Naphthalene	CT,NY,NH
Nitrobenzene	CT,NY,NH
2-Nitrophenol	CT,NY,NH
4-Nitrophenol	CT,NY,NH
Pentachlorophenol	CT,NY,NH

CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
<i>SW-846 8270D in Water</i>	
Phenol	CT,NY,NH
1,2,4-Trichlorobenzene	CT,NY,NH
2,4,5-Trichlorophenol	CT,NY,NH
2,4,6-Trichlorophenol	CT,NY,NH

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC	100033	02/1/2018
MA	Massachusetts DEP	M-MA100	06/30/2017
CT	Connecticut Department of Public Health	PH-0567	09/30/2017
NY	New York State Department of Health	10899 NELAP	04/1/2017
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2017
RI	Rhode Island Department of Health	LAO00112	12/30/2016
NC	North Carolina Div. of Water Quality	652	12/31/2016
NJ	New Jersey DEP	MA007 NELAP	06/30/2017
FL	Florida Department of Health	E871027 NELAP	06/30/2017
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2017
ME	State of Maine	2011028	06/9/2017
VA	Commonwealth of Virginia	460217	12/14/2016
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2016

39 Spruce St.
East Longmeadow, MA. 01028
P: 413-525-2332
F: 413-525-6405
www.contestlabs.com



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Sample Receipt Checklist

CLIENT NAME: USTAR RECEIVED BY: RF DATE: 8/4/16

1) Was the chain(s) of custody relinquished and signed? Yes X No No COC Incl.

2) Does the chain agree with the samples? Yes X No

If not, explain:

3) Are all the samples in good condition? Yes X No

If not, explain:

4) How were the samples received:

On Ice X Direct from Sampling Ambient In Cooler(s) X

Were the samples received in Temperature Compliance of (2-6°C)? Yes No N/A

Temperature °C by Temp blank Temperature °C by Temp gun 5.3/5.6

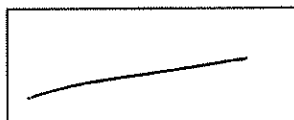
5) Are there Dissolved samples for the lab to filter? Yes No X

Who was notified Date Time

6) Are there any RUSH or SHORT HOLDING TIME samples? Yes X No

Who was notified BM Date 8/4/16 Time 21:15

7) Location where samples are stored:



Permission to subcontract samples? Yes No

(Walk-in clients only) if not already approved

Client Signature:

8) Do all samples have the proper Acid pH: Yes X No N/A

9) Do all samples have the proper Base pH: Yes X No N/A

10) Was the PC notified of any discrepancies with the CoC vs the samples: Yes N/A X

Containers received at Con-Test

	# of containers		# of containers
1 Liter Amber	<u>16</u>	16 oz amber	
500 mL Amber	<u>2</u>	8 oz amber/clear jar	
250 mL Amber (8oz amber)	<u>2</u>	4 oz amber/clear jar	
1 Liter Plastic	<u>2</u>	2 oz amber/clear jar	
500 mL Plastic		Plastic Bag / Ziploc	
250 mL plastic	<u>8</u>	SOC Kit	
40 mL Vial - type listed below	<u>6</u>	Perchlorate Kit	
Colisure / bacteria bottle		Flashpoint bottle	
Dissolved Oxygen bottle	<u>2</u>	Other glass jar	
Encore		Other	

40 mL vials: # HCl 6 # Methanol

Time and Date Frozen:

Doc# 277 # Bisulfate # DI Water

Rev. 4 August 2013 # Thiosulfate Unpreserved

Login Sample Receipt Checklist

(Rejection Criteria Listing - Using Sample Acceptance Policy)

Any False statement will be brought to the attention of Client

Question	Answer (True/False)		Comment
	T/F/NA		
1) The cooler's custody seal, if present, is intact.	NA		
2) The cooler or samples do not appear to have been compromised or tampered with.	T		
3) Samples were received on ice.	T		
4) Cooler Temperature is acceptable.	T		
5) Cooler Temperature is recorded.	T		
6) COC is filled out in ink and legible.	T		
7) COC is filled out with all pertinent information.	T		
8) Field Sampler's name present on COC.	T		
9) There are no discrepancies between the sample IDs on the container and the COC.	T		
10) Samples are received within Holding Time.	F		short holds ^{received} past hold
11) Sample containers have legible labels.	T		
12) Containers are not broken or leaking.	T		
13) Air Cassettes are not broken/open.	NA		
14) Sample collection date/times are provided.	T		
15) Appropriate sample containers are used.	T		
16) Proper collection media used.	T		
17) No headspace sample bottles are completely filled.	NA		
18) There is sufficient volume for all requested analyses, including any requested MS/MSDs.	T		
19) Trip blanks provided if applicable.	NA		
20) VOA sample vials do not have head space or bubble is <6mm (1/4") in diameter.	T		
21) Samples do not require splitting or compositing.	T		

Doc #277 Rev. 4 August 2013

Who notified of False statements?

Log-In Technician Initials:

Date/Time:

Date/Time:

RLT 8/4/16 JOK

MADEP MCP Analytical Method Report Certification Form

Laboratory Name: Con-Test Analytical Laboratory		Project #: 16H0199	
Project Location: Eversource Station 315		RTN:	
This Form provides certifications for the following data set: [list Laboratory Sample ID Number(s)] 16H0199-01 thru 16H0199-02			
Matrices: Water			
CAM Protocol (check all that below)			
8260 VOC CAM II A (X)	7470/7471 Hg CAM IIIB (X)	MassDEP VPH CAM IV A ()	8081 Pesticides CAM V B ()
7196 Hex Cr CAM VI B (X)	MassDEP APH CAM IX A ()	8270 SVOC CAM II B (X)	7010 Metals CAM III C ()
MassDEP EPH CAM IV A ()	8151 Herbicides CAM V C ()	8330 Explosives CAM VIII A ()	TO-15 VOC CAM IX B ()
6010 Metals CAM III A ()	6020 Metals CAM III D (X)	8082 PCB CAM V A (X)	9014 Total Cyanide/PAC CAM VI A ()
6860 Perchlorate CAM VIII B ()			
Affirmative response to questions A through I is required for "Presumptive Certainty" status			
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?		☐ Yes ☒ No ¹
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?		☒ Yes ☐ No ¹
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?		☒ Yes ☐ No ¹
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?		☒ Yes ☐ No ¹
E a	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).		☐ Yes ☐ No ¹
E b	APH and TO-15 Methods only: Was the complete analyte list reported for each method?		☐ Yes ☐ No ¹
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all No responses to Questions A through E)?		☒ Yes ☐ No ¹
A response to questions G, H and I below is required for "Presumptive Certainty" status			
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?		☐ Yes ☒ No ¹
Data User Note: Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.			
H	Were all QC performance standards specified in the CAM protocol(s) achieved?		☐ Yes ☒ No ¹
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?		☐ Yes ☒ No ¹
¹ All Negative responses must be addressed in an attached Environmental Laboratory case narrative.			
I, the undersigned, attest under the pains and penalties of perjury that, based upon my personal inquiry of those responsible for obtaining the information, the material contained in this analytical report is, to the best of my knowledge and belief, accurate and complete.			
Signature: <u>Lisa A. Worthington</u>		Position: Project Manager	
Printed Name: Lisa A. Worthington		Date: 08/08/16	



Tighe & Bond



Enter your transmittal number

X271408

Transmittal Number

Your unique Transmittal Number can be accessed online: <http://mass.gov/dep/service/online/trasmfrm.shtml>

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits, enter the LSP.

A. Permit Information

WM10

1. Permit Code: 7 or 8 character code from permit instructions

Construction Dewatering

3. Type of Project or Activity

General Permit for Construction Site Dewatering

2. Name of Permit Category

B. Applicant Information – Firm or Individual

Eversource Energy

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

Zylich

Michael

2. **Last Name** of Individual

3. **First Name** of Individual

4. MI

247 Station Drive

5. Street Address

Westwood

MA

02090

781-441-3804

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Michael Zylich

michael.zylich@eversource.com

11. Contact Person

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Station 315 - UG Transmission and Distribution Electric Duct Bank Installation

1. Name of Facility, Site Or Individual

Electric Ave, North Beacon Street and Parsons Street

2. Street Address

Brighton

MA

02135

NA

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

3-33539

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

Tighe & Bond

1. Name of Firm Or Individual

53 Southampton Road

2. Address

Westfield

MA

01085

413-572-3254

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

Paul Beaulieu

9999

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
If yes, enter the project's EOE file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

Special Provisions:

1. ☐ **Fee Exempt** (city, town or municipal housing authority)(state agency if fee is \$100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ **Hardship Request** - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ **Alternative Schedule Project** (according to 310 CMR 4.05 and 4.10).
4. ☐ **Homeowner** (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

NA

Check Number

NA

Dollar Amount

NA

Date