

August 14, 2020

U.S. Environmental Protection Agency Office of Ecosystem Protection EPA/OEP RGP Applications Coordinator 5 Post Office Square, Suite 100 (OEP06-01) Boston, MA 02109-3912

RE: Notice of Intent (NOI) – Remediation General Permit (RGP) NHG910000 Brick Market, 60 Penhallow Street, Portsmouth, New Hampshire

Dear Coordinator:

On behalf of Dagny Taggart, LLC, Wilcox & Barton, Inc. is pleased to submit this Notice of Intent (NOI) requesting coverage under the United States Environmental Protection Agency (EPA) Remediation General Permit (RGP), pursuant to the National Pollutant Discharge Elimination System (NPDES) program. This NOI has been prepared in accordance with the general requirements of the NPDES RGP and related guidance documentation. The completed NOI form is provided in **Appendix A**.

Site Information

The project area is at the corner of Daniel Street (US Route 1) and Penhallow Street in Portsmouth. The parcel is identified by the City of Portsmouth Assessor's Office as Map 107, Lot 27 and is 0.55 acres of land consisting of asphalt-paved parking areas with associated driveways, a parking attendant kiosk, brick and concrete walkways, and landscaped areas. The site is in the "CD4" Character-Based Zoning District and Portsmouth Downtown Overlay District. Surrounding properties are commercial/industrial and residential uses. Office buildings bound the subject parcel to the west and south. Downtown Portsmouth is surrounded on three sides by the Piscataqua River and its tributary estuaries. Figure 1 – *Site Location Map* depicts the location of the project site.

Proposed Project

The proposed project includes the construction of an approximately 17,200-square-foot, four-story building with two levels of subsurface parking facilities and general site improvements. During geotechnical work in support of foundation design, petroleum odors were encountered. Subsequent investigation revealed petroleum contamination in soil and groundwater near the northeastern corner of the site. The excavation project will remove soil from the entire property, yielding effective remediation of petroleum-contaminated soil. The specific source of contamination has not been determined but is expected to be related to historical use of the subject or adjacent properties.

To complete the excavation in the dry, dewatering will be required. The water generated during dewatering will pass through a treatment system prior to discharging to the municipal storm drain system in Penhallow Street.

A site plan showing the proposed building and existing site is provided as Figure 2 - Site Plan.



Site Characterization

To characterize groundwater from the proposed excavation area, Wilcox & Barton, Inc. collected a representative groundwater sample during the initial site investigation. The samples were analyzed for various parameters in accordance with the NPDES RGP Activity Category III-G. A summary of the analytical results is provided on Table 1 – *Water Quality Data -Summary of Analytical Results* and in **Appendix A**. Copies of the laboratory data reports are provided in **Appendix B**.

Discharge and Receiving Surface Water Information

The proposed discharge will be to an existing stormwater outfall at the Piscataqua River, a Class B receiving water, with conveyance by the municipal stormwater system as approved by the municipality. After entering the municipal storm drain system, the treated discharge will flow to an existing municipal outfall in the Piscataqua River as shown on Figure 3 – *Site Vicinity Plan*.

Potential receiving water impairments include:

Designated Use	Parameter	Condition
Aquatic Life Integrity	Estuarine Assessments	Severe
Fish Consumption	Mercury	Poor
	Polychlorinated Biphenyls	Poor
Potential Drinking Water Supply	Fecal Coliform	Likely Bad
Primary Contact Recreation	Enterococcus	Severe
Secondary Contact Recreation	Enterococcus	Poor
Shellfish Consumption	Dioxin (incl. 2,3,7,8-TCDD)	Poor
	Mercury	Poor
	Polychlorinated Biphenyls	Poor

Analytical data for a sample collected from the receiving water at the outfall are presented in Table 1.

Treatment System

Extracted groundwater will be processed through a primary settling tank, a secondary weir tank, bag filters to remove fine sediment (and adsorbed contaminants), and two 2,000-lb granular activated carbon units plumbed in series. The design and maximum flow rate will be 50 gallons per minute, with an expected average flow rate in the range of 20 to 35 gallons per minute. Flow is expected to vary as dewatering operations reach different strata and, eventually, bedrock.

A water treatment system schematic is provided as Figure 4 – *Groundwater Treatment System Diagram*.

Consultation with Federal Services

An informal consultation with the United States Fish and Wildlife Service was conducted. One threatened species was found within the general vicinity of the project area – the Northern Longeared Bat. However, based on the specific project area and scope of the project activities as specified for this NOI, the prescribed project activities are not likely to result in unauthorized take of the northern long-eared bat.



Similarly, project reviews were performed by the New Hampshire Natural Heritage Bureau (NHB) and Division of Historical Resources (NHDHR). Both agencies determined the prescribed project activities proposed will not impact the respective protected resources. The determination made by NHDHR was contingent on the concurring approval of the Portsmouth Historic District Commission (HDC) for the proposed project. A copy of the HDC Certificate of Approval has been shared with NHDHR and is included in **Appendix C**.

No formal consultation with the National Marine Fisheries Service (NMFS) was conducted. Review of the Endangered Species Act Section 7 Mapper did indicate the potential presence of the Atlantic and Shortnose Sturgeon in or near the Piscataqua River surrounding Portsmouth's downtown area and a critical habitat for the Atlantic Sturgeon in or near the existing outfall location. According to the NMFS criterion, stressors to the aquatic life and their habitats were evaluated in relation to the proposed project activities. No in-land project activities will likely disturb the indicated species or their habitats, and contaminants will be removed through the water treatment system to acceptable levels in accordance with the EPA and New Hampshire regulations prior to discharging into the municipal storm drain system. Water quality changes at the existing outfall location as a result of the proposed wastewater discharges will not likely affect the indicated species or their habitats.

Reports outlining the findings of these reviews are provided in **Appendix C**.

Coverage Under the RGP

It is our opinion that the proposed discharge is eligible for coverage under the NPDES RGP. On behalf of Dagny Taggart, LLC, we are requesting coverage under the NPDES RGP for the discharge of treated wastewater to the Piscataqua River in support of construction dewatering activities that are to take place at 60 Penhallow Street, Portsmouth, NH.

The enclosed NOI form provides required information on the general site conditions, discharge, treatment system, receiving water, and consultation with federal services. For this project, Dagny Taggart, LLC is considered the Operator and has operational control over the construction plans and specifications, including the ability to make modifications to those plans and specifications.

If you have any questions, or require additional information, please do not hesitate to contact either of the undersigned.

Very truly yours,

Barrett L. Smith, CPG, LEF

Senior Hydrogeologist

William R. Wilcox Jr.

President - Principal Geologist

Attachments Table 1 – NPDES Discharge Permitting Samples – Summary of Analytical Results

Figure 1 – Site Location Map

Figure 2 – Site Plan

Figure 3 – Site Vicinity Plan

Figure 4 – Groundwater Treatment System Diagram

Appendix A – NOI Form

Appendix B – Laboratory Data

Appendix C – Supplemental Information

TABLE



TABLE 1 NPDES Discharge Permitting Samples - Summary of Analytical Results

Brick Market

60 Penhallow Street, Portsmouth, New Hampshire
NHDES Site #202007013
[see notes at end of table]

		s at end of table]		I	
Sample Identification Sample Date	Ambient Groundwater Quality Standards (AGQS) †	Technology-Based Effluent Limitation (TBEL)*	Applicable Water Quality- Based Effluent Limitation (WQBEL)**	MW-101 7/10/20	SW-1 7/21/20
Volatile Organic Compounds (VOCs)	X = 71			7/10/20	1/21/20
by EPA Method 624.1					
Acetone	6,000	7,970	NL	50 U	50 U
tertiary-amyl methyl ether (TAME)	140	140	NL	0.50 U	0.50 U
Benzene	5	5	NL	1.0 U	1.0 U
Bromodichloromethane	0.6	NS	NL	2.0 U	2.0 U
Bromoform	4	NS	NL	2.0 U	2.0 U
Bromomethane	10	NS	NL	2.0 U	5.0 U
tertiary-Butyl alcohol (TBA)	40	40	NL	20 U	20 U
Carbon tetrachloride	5	4.4	NL	2.0 U	2.0 U
Chlorobenzene	100	NS	NL	2.0 U	2.0 U
Dibromochloromethane	60	NS	NL	2.0 U	2.00 U
Chloroethane	NS	NS	NL	2.0 U	2.0 U
Chloroform	70	NS	NL	2.0 U	2.0 U
Chloromethane	30	NS	NL	2.0 U	2.0 U
1,2-Dichlorobenzene	600	600	NL	2.0 U	2.0 U
1,3-Dichlorobenzene	600	320	NL	2.0 U	2.0 U
1,4-Dichlorobenzene	75	5	NL	2.0 U	2.0 U
1,2-Dichloroethane	5	5	NL	2.0 U	2.0 U
1,1-Dichloroethane	81	70	NL	2.0 U	2.0 U
1,1-Dichloroethylene	7	3.2	NL	2.0 U	2.0 U
trans-1,2-Dichloroethylene	100	NS	NL	2.0 U	2.0 U
1,2-Dichloropropane	5	NS	NL	2.0 U	2.0 U
cis-1,3-Dichloropropene	0.5	NS	NL	2.0 U	2.0 U
1,4-Dioxane	0.32	200	NL	50 U	50 U
trans-1,3-Dichloropropene	0.5	NS	NL	2.0 U	2.0 U
Ethanol	NS	NS	NL	50 U	50 U
Ethylbenzene	700	NS	NL	2.0 U	2.0 U
Methyl tertiary-butyl ether (MTBE)	13	70	NL	2.0 U	2.0 U
Methylene chloride	5	4.6	NL	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	2	NS	NL	2.0 U	2.0 U
Tetrachloroethylene (PCE)	5	5	NL	2.0 U	2.0 U
Toluene	1,000	NS	NL	1.0 U	1.0 U
1,1,1-Trichloroethane	200	200	NL	2.0 U	2.0 U
1,1,2-Trichloroethane	5	5	NL	2.0 U	2.0 U
Trichloroethylene (TCE)	5	5	NL	2.0 U	2.0 U
Trichlorofluoromethane	2,000	NS	NL	2.0 U	2.0 U
Vinyl chloride	2	2	NL	2.0 U	2.0 U
mp-Xylene	NS	NS	NL	2.0 U	2.0 U
o-Xylene	NS	NS	NL	1.0 U	1.0 U
Total Xylenes	10,000	NS	NL	3.0 U	3.0 U



TABLE 1 NPDES Discharge Permitting Samples - Summary of Analytical Results

Brick Market

60 Penhallow Street, Portsmouth, New Hampshire
NHDES Site #202007013
[see notes at end of table]

Sample Identification Sample Date	Ambient Groundwater Quality Standards (AGQS) †	Technology-Based Effluent Limitation (TBEL)*	Applicable Water Quality- Based Effluent Limitation (WQBEL)**	MW-10 7/10/2		SW-1 7/21/2	
Drinking Water Organics by EPA Method 504.1							
1,2-Dibromoethane (EDB)	0.05	NS	NL	0.020	U	0.019	U
Total Petroleum Hydrocarbons (TPH) (mg/L)							
TPH (#2 Fuel Oil)	NS	5.0	NL	1.1			
Semivolatile Organic Compounds (SVOCs)							
by EPA Method 625.1							
Benzo(a)anthracene	0.1	1.0	NL	0.047	U	0.052	U
Benzo(a)pyrene	0.2	1.0	NL	0.095	U	0.10	U
Benzo(b)fluoranthene	0.1	1.0	NL	0.047	U	0.052	U
Benzo(k)fluoranthene	0.5	1.0	NL	0.19	U	0.21	U
Chrysene	5	1.0	NL	0.19	U	0.21	U
Dibenz(a,h)anthracene	0.1	1.0	NL	0.095	U	0.10	U
Indeno(1,2,3-cd)pyrene	0.1	1.0	NL	0.095	UJ	0.10	U
Pentachlorophenol	1	1.0	NL	0.95	U	1.0	U
Acenaphthene	420	NS	NL	4.01	J	5.15	U
Acenaphthylene	420	NS	NL	4.74	U	5.15	U
Anthracene	2,100	NS	NL	0.711	J	5.15	U
Benzo(g,h,i)perylene	210	NS	NL	4.74	U	5.15	U
Di-n-butylphthalate	800	NS	NL	9.48	U	10.3	U
Diethylphthalate	NS	NS	NL	9.48	U	10.3	U
Dimethylphthalate	50,000	NS	NL	9.48	U	10.3	U
Di-n-octylphthalate	NS	NS	NL	9.48	UJ	10.3	U
Bis(2-Ethylhexyl)phthalate	NS	NS	NL	9.48	U	10.3	U
Fluoranthene	280	NS	NL	4.74	U	5.15	U
Fluorene	280	NS	NL	3.82	J	5.15	U
Naphthalene	100	20	NL	0.521	J	5.15	U
Phenanthrene	210	NS	NL	3.30	J	5.15	U
Pyrene	210	NS	NL	4.74	U	5.2	U
Polychlorinated Byphenyls (PCBs) by EPA Method 608.3							
All Aroclors (total)	0.5	0.00064 (0.5)	NL	0.0948	U	0.109	U
Aroclor-1016	0.5	NS	NL	0.0948	U	0.109	U
Aroclor-1221	0.5	NS	NL	0.0948	U	0.109	U
Aroclor-1232	0.5	NS	NL	0.0948	U	0.109	U
Aroclor-1242	0.5	NS	NL	0.0948	U	0.109	U
Aroclor-1248	0.5	NS	NL	0.0948	U	0.109	U
Aroclor-1254	0.5	NS	NL	0.0948	U	0.109	U
Aroclor-1260	0.5	NS	NL NL	0.0948	U	0.109	U



TABLE 1

NPDES Discharge Permitting Samples - Summary of Analytical Results

Brick Market

60 Penhallow Street, Portsmouth, New Hampshire NHDES Site #202007013 [see notes at end of table]

Sample Identification Sample Date		Technology-Based Effluent Limitation (TBEL)*	Applicable Water Quality- Based Effluent Limitation (WQBEL)**	MW-1 7/10/2		SW-1 7/21/2	
Total Metals by EPA 200 series Methods							
Antimony	6	206	NL	1.0	U	5.0	U
Arsenic	10	104	NL	19		19	
Cadmium	5	10.2	NL	0.20	U	1.0	U
Chromium, total	100	NS	NL	2.3		6.2	
Chromium, Trivalent	NS	323	NL	2.3		6.2	
Copper	1,300	242	3.7	9.9		130	
Iron	NS	5,000	NL	2,300		250	
Lead	15	160	NL	1.5		2.5	U
Mercury	2	0.739	NL	0.10	U	0.10	U
Nickel	100	1,450	NL	5.0	U	25	U
Selenium	50	235.8	NL	5.0	U	190	
Silver	100	35.1	NL	0.20	U	1.0	
Zinc	NS	420	NL	10	U	50	
Hardness	NS	NS	NL			0.014	
Conventional Chemistry Parameters by EPA SW- 846 Methods (Total) (mg/L)							
Ammonia as N	NS	NS	NL	0.10	U	0.10	U
Chloride	NS	NS	NL	1,100		35	
Chlorine, Residual	NS	0.2	0.0075 (0.05)	0.02	U	0.020	U
Hexavalent Chromium	NS	0.323	NL	0.004	U	0.0040	U
Phenol	NS	1.08	0.3	0.080		0.050	U
Total Suspended Solids	NS	30	NL	15		20	
Silica Gel Treated HEM (SGT-HEM)	NS	NS	NL	1.4	U	1.4	U
Cyanide	0.200	178	NL	0.005	U	0.005	U

Detected and selected other analytes listed; all others were not detected.

Results in micrograms per liter (µg/L) unless otherwise indicated.

U Not detected at or above the listed laboratory reporting limit.

J Estimated concentration.

NS No standard/effluent limit established.

NL WQBEL does not apply.

red bold Detected concentration exceeds applicable WQBEL.

bold Detected concentration exceeds AGQS.

bold italics Not detected; laboratory reporting limit exceeds AGQS.

[†] Table 600-1 of Part Env-Or 603.03(c), AGQS, effective September 1, 2018.

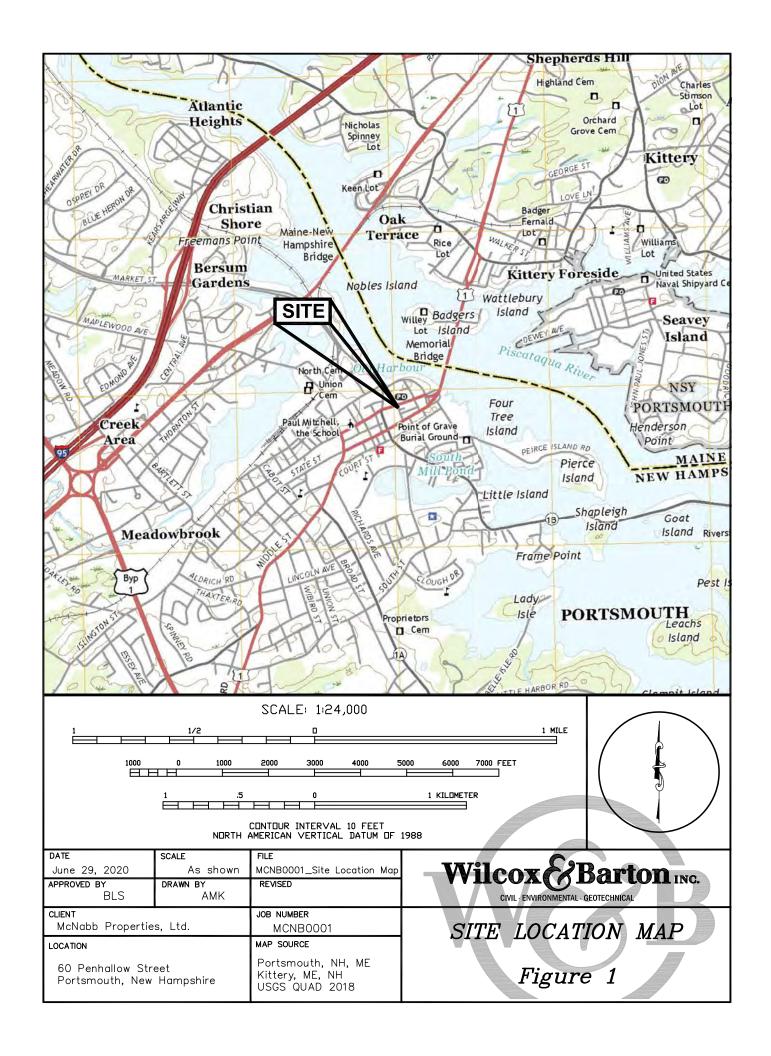
* Table 2 of National Pollutant Discharge Elimination System (NPDES) General Permit for Remediation Activity Discharges, March 17, 2017.

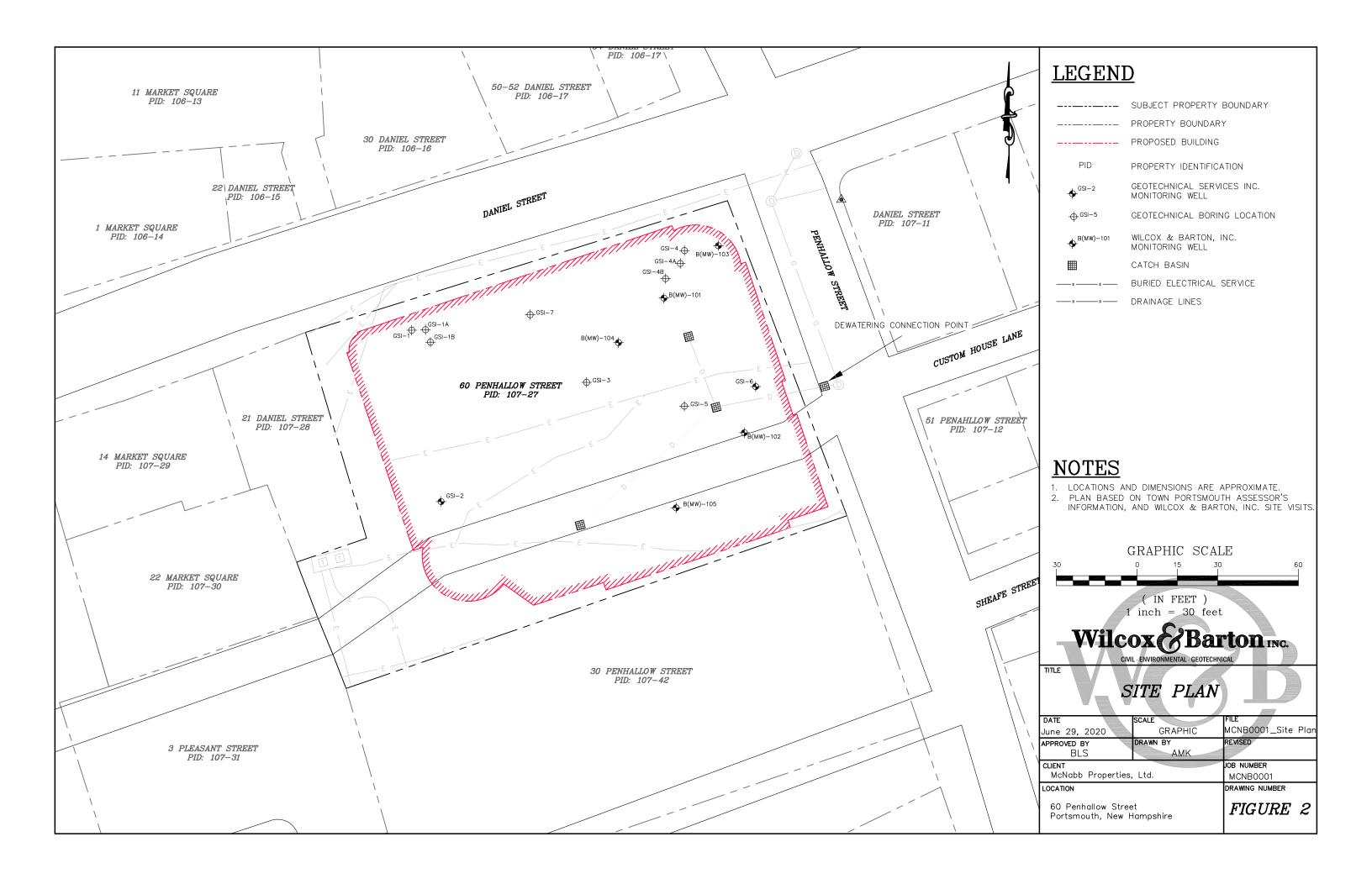
** Applicable limit determined based on "Saltwater Results" output page of Appendix VI spreadsheet. Applicable compliance values in parentheses.

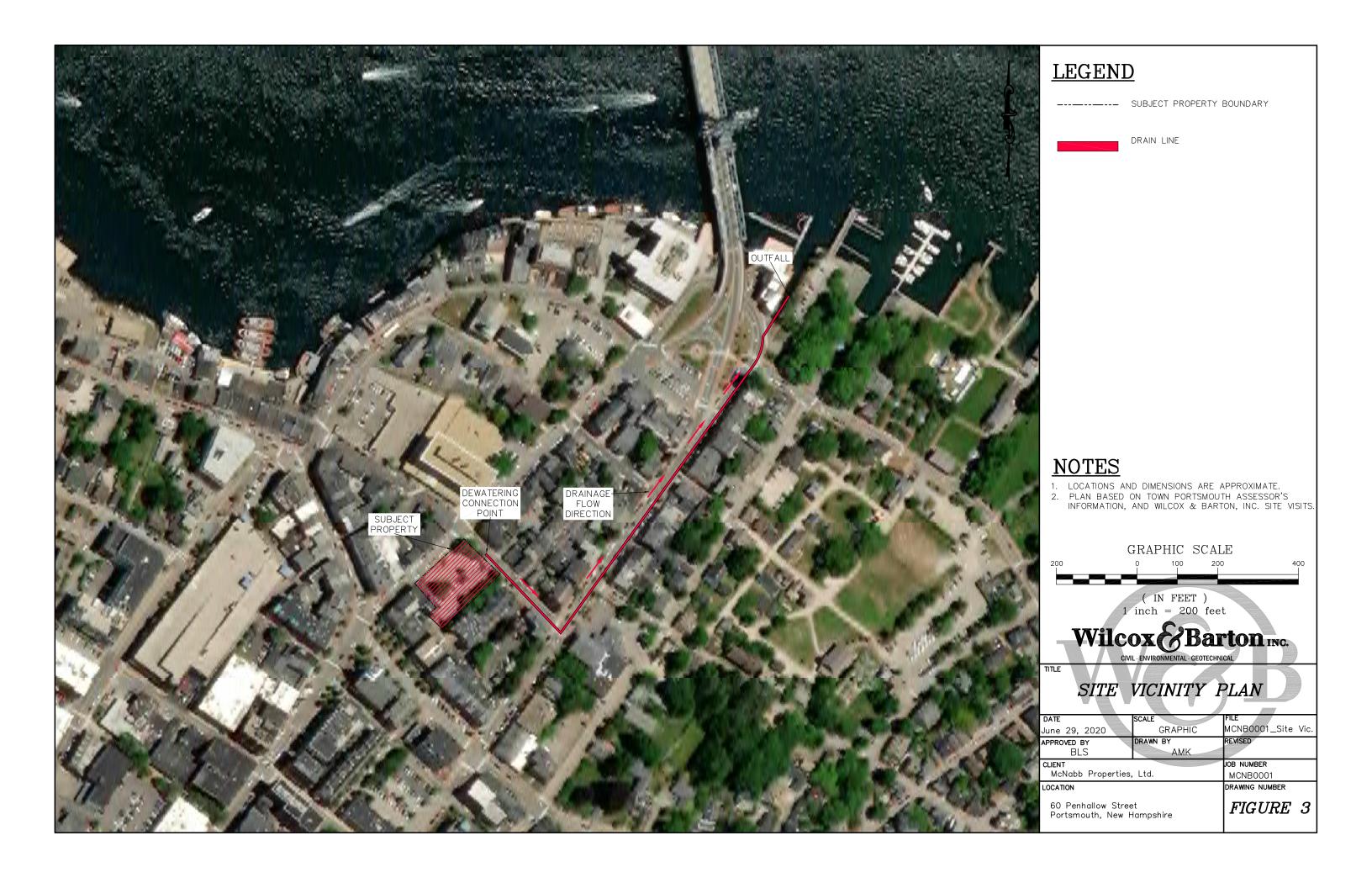


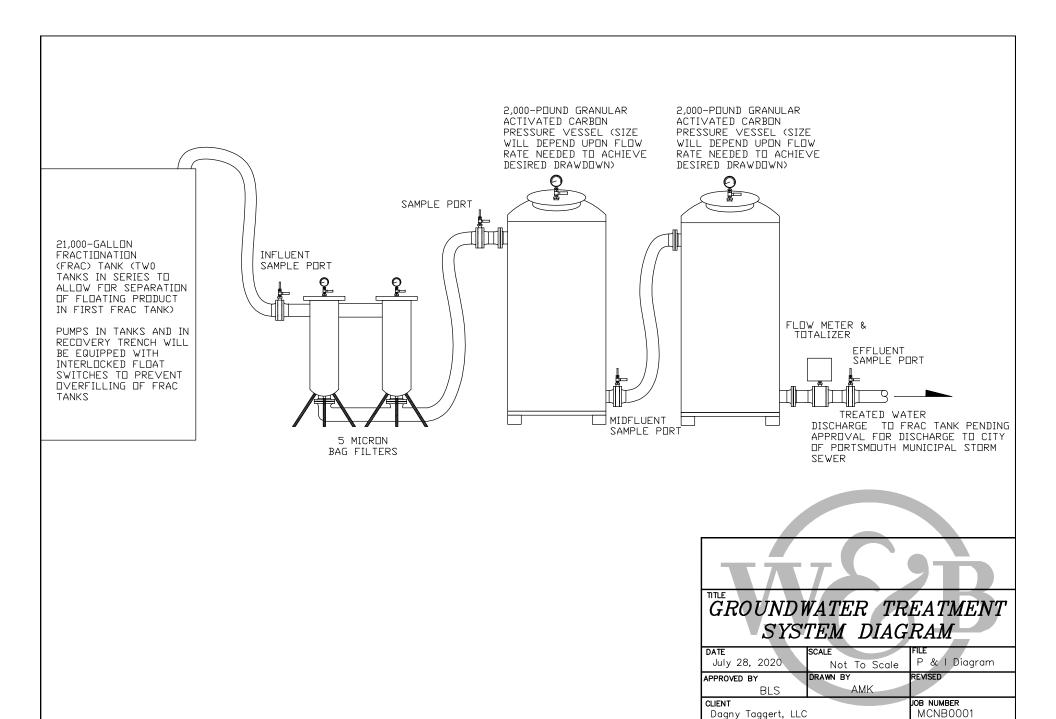
FIGURES











DRAWING NUMBER

FIGURE 4

LOCATION

Brick Market

Project #39716

60 Penhallow Street, Portsmouth, NH

NHDES #202007013 and SPILL/RLS

APPENDIX A

Notice of Intent Form



II. Suggested Format for the Remediation General Permit Notice of Intent (NOI)

A. General site information:

1. Name of site:	Site address: 60 Penhallow Street						
Brick Market	Street:						
	City: Portsmouth		State: NH	Zip: 03801			
2. Site owner Dagny Taggart, LLC	Contact Person: Mark McNabb						
Dagny Taggart, LLO	Telephone: 603-427-0725	Email: hou	ıse@mcnat	obgroup.com			
	Mailing address: 3 Pleasant Street, 4th Floor						
	Street:						
Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private ☐ Other; if so, specify:	City: Portsmouth		State: NH	Zip: 03801			
3. Site operator, if different than owner	Contact Person: Mark McNabb						
McNabb Properties, LLC	Telephone: 603-427-0725	Email: hou	ouse@mcnabbgroup.com				
	Mailing address:						
	30 Penhallow Street, Suite 300E						
	City: Portsmouth		State: NH	Zip: 3801			
4. NPDES permit number assigned by EPA:	5. Other regulatory program(s) that apply to the site	(check all th	at apply):				
	☐ MA Chapter 21e; list RTN(s):	□ CERCL	₋ A				
NPDES permit is (check all that apply: ■ RGP □ DGP □ CGP □ MSGP □ Individual NPDES permit □ Other; if so, specify:	■ NH Groundwater Management Permit or Groundwater Release Detection Permit: NHDES #202007013, Project #39716		Program V Pretreatment Section 404				

B. Receiving water information:

B. Receiving water information:								
1. Name of receiving water(s):	Waterbody identification of receiving water((s): Classi	fication of receiving water(s):					
Lower Piscataqua River - South NHEST600031001-02-02 Class B								
Receiving water is (check any that apply): □ Outstanding Resource Water □ Ocean Sanctuary □ territorial sea □ Wild and Scenic River								
2. Has the operator attached a location map in accord	ance with the instructions in B, above? (check one):	: ■ Yes □ No						
Are sensitive receptors present near the site? (check one): □ Yes ■ No If yes, specify:								
3. Indicate if the receiving water(s) is listed in the State's Integrated List of Waters (i.e., CWA Section 303(d)). Include which designated uses are impaired, and any pollutants indicated. Also, indicate if a final TMDL is available for any of the indicated pollutants. For more information, contact the appropriate State as noted in Part 4.6 of the RGP. Aquatic life: Estuarine bioassessments; Fish consumption: mercury, PCBs; Primary/Secondary contact: Enterococcus; Shellfish consumption: Dioxin								
4. Indicate the seven day-ten-year low flow (7Q10) of the receiving water determined in accordance with the instructions in Appendix V for sites located in Massachusetts and Appendix VI for sites located in New Hampshire. Not applicable								
5. Indicate the requested dilution factor for the calculated accordance with the instructions in Appendix V for si			1					
6. Has the operator received confirmation from the ap If yes, indicate date confirmation received: July 9, 202	0							
7. Has the operator attached a summary of receiving	water sampling results as required in Part 4.2 of the	RGP in accordance with the	e instruction in Appendix VIII?					
(check one): ■ Yes □ No								
C. Source water information:								
1. Source water(s) is (check any that apply):								
■ Contaminated groundwater	☐ Contaminated surface water	☐ The receiving water	☐ Potable water; if so, indicate municipality or origin:					
Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP	Has the operator attached a summary of influent sampling results as required in Part 4.2 of the	☐ A surface water other						
in accordance with the instruction in Appendix VIII? (check one):	RGP in accordance with the instruction in Appendix VIII? (check one):	than the receiving water; so, indicate waterbody:	if ■ Other; if so, specify:					
■ Yes □ No	□ Yes □ No		Rainwater					

2. Source water contaminants: Arsenic and petroleum hydrocarbons.	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance
the RGP? (check one): \square Yes \blacksquare No If yes, indicate the contaminant(s) and	with the instructions in Appendix VIII? (check one): Yes No
the maximum concentration present in accordance with the instructions in Appendix VIII.	
3. Has the source water been previously chlorinated or otherwise contains resid	lual chlorine? (check one): ☐ Yes ■ No
D. Discharge information	
1.The discharge(s) is a(n) (check any that apply): ■ Existing discharge □ New	v discharge □ New source
Outfall(s):	Outfall location(s): (Latitude, Longitude)
Outfall 12653	40.077847, -70.752780
Discharges enter the receiving water(s) via (check any that apply): ■ Direct dis	scharge to the receiving water Indirect discharge, if so, specify:
☐ A private storm sewer system ■ A municipal storm sewer system	
If the discharge enters the receiving water via a private or municipal storm sew	•
Has notification been provided to the owner of this system? (check one): ■ Ye	s □ No
Has the operator has received permission from the owner to use such system for obtaining permission: Approval pending City review of this NOI and confil	or discharges? (check one): ☐ Yes ■ No, if so, explain, with an estimated timeframe for rmation of municipal drain system flow capacity.
Has the operator attached a summary of any additional requirements the owner	of this system has specified? (check one): ☐ Yes ■ No
Provide the expected start and end dates of discharge(s) (month/year): August	2020 through December 2020
Indicate if the discharge is expected to occur over a duration of: less than 12	2 months □ 12 months or more □ is an emergency discharge
Has the operator attached a site plan in accordance with the instructions in D. a	above? (check one): ■ Yes □ No

2. Activity Category: (check all that apply)	3. Contamination Type Category: (check all that apply)					
	a. If Activity Category I or II: (check all that apply)					
	 □ A. Inorganics □ B. Non-Halogenated Volatile Organic Compounds □ C. Halogenated Volatile Organic Compounds □ D. Non-Halogenated Semi-Volatile Organic Compounds □ E. Halogenated Semi-Volatile Organic Compounds □ F. Fuels Parameters 					
 □ I – Petroleum-Related Site Remediation □ II – Non-Petroleum-Related Site Remediation 	b. If Activity Category III, IV	, V, VI, VII or VIII: (check either G or H)				
■ III – Contaminated Site Dewatering□ IV – Dewatering of Pipelines and Tanks	■ G. Sites with Known Contamination	☐ H. Sites with Unknown Contamination				
 □ V – Aquifer Pump Testing □ VI – Well Development/Rehabilitation □ VII – Collection Structure Dewatering/Remediation 	c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (check all that apply)					
□ VIII – Dredge-Related Dewatering	 ■ A. Inorganics ■ B. Non-Halogenated Volatile Organic Compounds □ C. Halogenated Volatile Organic Compounds ■ D. Non-Halogenated Semi-Volatile Organic Compounds □ E. Halogenated Semi-Volatile Organic Compounds ■ F. Fuels Parameters 	d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply				

4. Influent and Effluent Characteristics

	Known	Known		700 4	D	Infl	uent	Effluent L	imitations
Parameter	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia	✓		1	350.1	100			Report mg/L	
Chloride		✓	1	300.0	100,000	1,100		Report μg/l	
Total Residual Chlorine	✓		1	4500	20			0.2 mg/L	7.5 ug/l
Total Suspended Solids		✓	1	2540D	1,000	15,000		30 mg/L	
Antimony	✓		1	200.8	1.0			206 μg/L	
Arsenic		✓	1	200.8	0.8	19		104 μg/L	
Cadmium	✓		1	200.8	0.2			10.2 μg/L	
Chromium III		✓	1	200.8		2.3		323 μg/L	
Chromium VI	✓		1	3500	4.0			323 μg/L	
Copper		✓	1	200.8	1.0	9.9		242 μg/L	3.7 ug/l
Iron		✓	1	200.7	1.0	2.3		5,000 μg/L	
Lead		✓	1	200.8		1.5		160 μg/L	
Mercury	✓		1	245.1	0.1			0.739 μg/L	
Nickel	✓		1	200.8	5			1,450 μg/L	
Selenium	✓		1	200.8	5			235.8 μg/L	
Silver	✓		1	200.8	0.2			35.1 μg/L	
Zinc	✓		1	200.8	10			420 μg/L	
Cyanide	✓		1	4500	5			178 mg/L	
B. Non-Halogenated VOCs	· S				•				•
Total BTEX	✓		1	624.1	0.78			100 μg/L	
Benzene	✓		1	624.1	0.14			5.0 μg/L	
1,4 Dioxane	✓		1	624.1	22.5			200 μg/L	
Acetone	✓		1	624.1	3.79			7.97 mg/L	
Phenol		✓	1	420.1	50	80		1,080 μg/L	300 ug/l

	Known	Known		_		Infl	uent	Effluent Lin	nitations
Parameter	or believed absent	or believed present	or # of believed samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✓		1	624.1	0.110			4.4 μg/L	
1,2 Dichlorobenzene	✓		1	624.1	0.16			600 μg/L	
1,3 Dichlorobenzene	1		1	624.1	0.13			320 μg/L	
1,4 Dichlorobenzene	✓		1	624.1	0.13			5.0 μg/L	
Total dichlorobenzene	✓		1	624.1	0.41			763 μg/L in NH	
1,1 Dichloroethane	✓		1	624.1	0.16			70 μg/L	
1,2 Dichloroethane	✓		1	624.1	0.41			5.0 μg/L	
1,1 Dichloroethylene	✓		1	624.1	0.32			3.2 μg/L	
Ethylene Dibromide	✓		1	504.1	0.02			0.05 μg/L	
Methylene Chloride	✓		1	624.1	0.340			4.6 μg/L	
1,1,1 Trichloroethane	1		1	624.1	0.2			200 μg/L	
1,1,2 Trichloroethane	1		1	624.1	0.16			5.0 μg/L	
Trichloroethylene	✓		1	624.1	0.24			5.0 μg/L	
Tetrachloroethylene	1		1	624.1	0.18			5.0 μg/L	
cis-1,2 Dichloroethylene	1		1	624.1	0.13			70 μg/L	
Vinyl Chloride	✓		1	614.1	0.45			2.0 μg/L	
D. Non-Halogenated SVO	Cs								
Total Phthalates	✓		1	625.1	1.93			190 μg/L	
Diethylhexyl phthalate	✓		1	625.1	0.282			101 μg/L	
Total Group I PAHs	√		1	625.1	0.098			1.0 μg/L	
Benzo(a)anthracene	✓		1	625.1	0.015				
Benzo(a)pyrene	√		1	625.1	0.011			1	
Benzo(b)fluoranthene	✓		1	625.1	0.014				
Benzo(k)fluoranthene	✓		1	625.1	0.011			As Total PAHs	
Chrysene	√		1	625.1	0.014				
Dibenzo(a,h)anthracene	√		1	625.1	0.016				
Indeno(1,2,3-cd)pyrene	✓		1	625.1	0.017			1	

	Known	Known			D	Influent		Effluent Lin	nitations
Parameter	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs		✓	1	625.1	2.89	12.36		100 μg/L	
Naphthalene		✓	1	625.1	0.42	0.52		20 μg/L	
E. Halogenated SVOCs									
Total PCBs	✓		1	608.3	0.57			0.000064 μg/L	
Pentachlorophenol	✓		1	625.1	0.31			1.0 μg/L	
F. Fuels Parameters	·			•					
Total Petroleum Hydrocarbons		✓	1	8015	190	1,100		5.0 mg/L	
Ethanol	✓		1	624.1	10.5			Report mg/L	
Methyl-tert-Butyl Ether	✓		1	624.1	0.25			70 μg/L	
tert-Butyl Alcohol	✓		1	624.1	4.17			120 μg/L in MA 40 μg/L in NH	
tert-Amyl Methyl Ether	✓		1	624.1	0.14			90 μg/L in MA 140 μg/L in NH	
Other (i.e., pH, temperatur	re, hardness,	salinity, LC	C50, addition	nal pollutar	nts present);	if so, specify:			

E. Treatment system information

1. Indicate the type(s) of treatment that will be applied to effluent prior to discharge: (check all that apply)	
□ Adsorption/Absorption □ Advanced Oxidation Processes □ Air Stripping ■ Granulated Activated Carbon ("GAC")/Liquid Phase Carbon Adsorption □ Ion Exchange □ Precipitation/Coagulation/Flocculation ■ Separation/Filtration □ Other; if so, specify:	
2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge. 20,000-gallon primary settling - 20,000-gallon weir tank, sediment (bag) filters run in parallel, 2 x 20,000-gallon granular activated carbon canisters run in series, totalizing	ng flow meter
Identify each major treatment component (check any that apply):	
■ Fractionation tanks ■ Equalization tank □ Oil/water separator □ Mechanical filter ■ Media filter	
□ Chemical feed tank □ Air stripping unit ■ Bag filter □ Other; if so, specify:	
Indicate if either of the following will occur (check any that apply): □ Chlorination □ De-chlorination	
3. Provide the design flow capacity in gallons per minute (gpm) of the most limiting component. Indicate the most limiting component: Carbon filters Is use of a flow meter feasible? (check one): ■ Yes □ No, if so, provide justification:	50
Provide the proposed maximum effluent flow in gpm.	50
Provide the average effluent flow in gpm.	30
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	
4. Has the operator attached a schematic of flow in accordance with the instructions in E, above? (check one): ■ Yes □ No	

F. Chemical and additive information

1. Indicate the type(s) of chemical or additive that will be applied to effluent prior to discharge or that may otherwise be present in the discharge(s): (check all that apply)
□ Algaecides/biocides □ Antifoams □ Coagulants □ Corrosion/scale inhibitors □ Disinfectants □ Flocculants □ Neutralizing agents □ Oxidants □ Oxygen □ scavengers □ pH conditioners □ Bioremedial agents, including microbes □ Chlorine or chemicals containing chlorine □ Other; if so, specify:
2. Provide the following information for each chemical/additive, using attachments, if necessary:
a. Product name, chemical formula, and manufacturer of the chemical/additive; b. Purpose or use of the chemical/additive or remedial agent; c. Material Safety Data Sheet (MSDS) and Chemical Abstracts Service (CAS) Registry number for each chemical/additive; d. The frequency (hourly, daily, etc.), duration (hours, days), quantity (maximum and average), and method of application for the chemical/additive; e. Any material compatibility risks for storage and/or use including the control measures used to minimize such risks; and f. If available, the vendor's reported aquatic toxicity (NOAEL and/or LC50 in percent for aquatic organism(s)).
3. Has the operator attached an explanation which demonstrates that the addition of such chemicals/additives may be authorized under this general permit in accordance
with the instructions in F, above? (check one): \square Yes \square No; if no, has the operator attached data that demonstrates each of the 126 priority pollutants in CWA Section 307(a) and 40 CFR Part 423.15(j)(1) are non-detect in discharges with the addition of the proposed chemical/additive?
(check one): ☐ Yes ☐ No
G. Endangered Species Act eligibility determination
1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:
□ FWS Criterion A : No endangered or threatened species or critical habitat are in proximity to the discharges or related activities or come in contact with the "action area".
■ FWS Criterion B: Formal or informal consultation with the FWS under section 7 of the ESA resulted in either a no jeopardy opinion (formal consultation) or a written concurrence by FWS on a finding that the discharges and related activities are "not likely to adversely affect" listed species or critical habitat
(informal consultation). Has the operator completed consultation with FWS? (check one): ■ Yes □ No; if no, is consultation underway? (check one): □
Yes □ No
□ FWS Criterion C : Using the best scientific and commercial data available, the effect of the discharges and related activities on listed species and critical habitat have been evaluated. Based on those evaluations, a determination is made by EPA, or by the operator and affirmed by EPA, that the discharges and related activities will have "no effect" on any federally threatened or endangered listed species or designated critical habitat under the jurisdiction of the
FWS. This determination was made by: (check one) \square the operator \square EPA \square Other; if so, specify:

■ NMFS Criterion: A determination made by EPA is affirmed by the operator that the discharges and related activities will have "no effect" or are "not likely to adversely affect" any federally threatened or endangered listed species or critical habitat under the jurisdiction of NMFS and will not result in any take of						
listed species. Has the operator previously completed consultation with NMFS? (check one): ☐ Yes ■ No						
2. Has the operator attached supporting documentation of ESA eligibility in accordance with the instructions in Appendix I, and G, above? (check one): ■ Yes □ No						
Does the supporting documentation include any written concurrence or finding provided by the Services? (check one): Yes No; if yes, attach.						
H. National Historic Preservation Act eligibility determination						
1. Indicate under which criterion the discharge(s) is eligible for coverage under this general permit:						
☐ Criterion A: No historic properties are present. The discharges and discharge-related activities (e.g., BMPs) do not have the potential to cause effects on						
historic properties.						
■ Criterion B: Historic properties are present. Discharges and discharge related activities do not have the potential to cause effects on historic properties.						
☐ Criterion C: Historic properties are present. The discharges and discharge-related activities have the potential to have an effect or will have an adverse						
effect on historic properties.						
2. Has the operator attached supporting documentation of NHPA eligibility in accordance with the instructions in H, above? (check one): ■ Yes □ No						
Does the supporting documentation include any written agreement with the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (TPHO), or						
other tribal representative that outlines measures the operator will carry out to mitigate or prevent any adverse effects on historic properties? (check one): Yes No						
I Symplemental information						
I. Supplemental information						
Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.						
Table 1 – Water Quality Data – Summary of Analytical Results, Figure 1 – Site Location Map, Figure 2 – Site Plan, Figure 3 – Site Vicinity Plan, Figure 4 – Groundwater Treatment						
System Diagram, Appendix B – Laboratory Data, Appendix C – Supplemental Information.						
Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes □ No						
Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes □ No						

J. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated 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, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.						
A BMPP meeting the requirements of this general permit will be deverged by the statement: implemented upon initiation of discharge per Part 2.5.1.c of the RGP.						
Notification provided to the appropriate State, including a copy of this NOI, if required.	Check one: Yes ■ No □					
Notification provided to the municipality in which the discharge is located, including a copy of this NOI, if requested.	Check one: Yes ■ No □					
Notification provided to the owner of a private or municipal storm sewer system, if such system is used for site discharges, including a copy of this NOI, if requested. Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site	Check one: Yes □ No □ NA ■					
discharges. If yes, attach additional conditions. If no, attach explanation and timeframe for obtaining permission.	Check one: Yes □ No ■ NA □					
Notification provided to the owner/operator of the area associated with activities covered by an additional discharge						
permit(s). Additional discharge permit is (check one): □ RGP □ DGP □ CGP □ MSGP □ Individual NPDES permit	Check one: Yes □ No □ NA ■					
☐ Other; if so, specify:						
Signature: Da	te: 08-14-2020					
Print Name and Title: MARK A. M -NABB, MANAGER						

Enter number values in green boxes below

Enter values in the units specified

\downarrow	
0	$Q_R = Enter upstream flow in MGD$
0.045	Q _P = Enter discharge flow in MGI
0	Downstream 7Q10

Enter a dilution factor, if other than zero



Enter values in the units specified

\downarrow	
0	C_d = Enter influent hardness in mg/L $CaCO_3$
0	C _s = Enter receiving water hardness in mg/L CaCO ₃

Enter receiving water concentrations in the units specified

	-
8	pH in Standard Units
20	Temperature in ^o C
0	Ammonia in μg/L
5600	Hardness in mg/L CaCO
30.8	Salinity in ppt
0	Antimony in µg/L
19	Arsenic in μg/L
0	Cadmium in μg/L
6.2	Chromium III in µg/L
0	Chromium VI in µg/L
130	Copper in µg/L
0	Iron in μg/L
0	Lead in μg/L
0	Mercury in μg/L
0	Nickel in μg/L
190	Selenium in µg/L
0	Silver in μg/L
0	Zinc in μg/L
	•

Enter influent concentrations in the units specified

	_
0	TRC in μg/L
9.09	Ammonia in mg/L
0	Antimony in μg/L
19	Arsenic in μg/L
0	Cadmium in μg/L
2.3	Chromium III in µg/L
0	Chromium VI in µg/L
9.9	Copper in µg/L
2300	Iron in μg/L
1.5	Lead in μg/L
0	Mercury in μg/L
0	Nickel in μg/L
0	Selenium in μg/L
0	Silver in μg/L
0	Zinc in μg/L
0	Cyanide in μg/L
800	Phenol in μg/L
0	Total Dichlorobenzene in μg/L
0	Total Phthalates in μg/L
0	Diethylhexylphthalate in µg/L
0	Benzo(a)anthracene in μg/L
0	Benzo(a)pyrene in μg/L
0	Benzo(b)fluoranthene in μg/L
0	Benzo(k)fluoranthene in μg /L
0	Chrysene in μg/L
0	Dibenzo(a,h)anthracene in μg/L
0	Indeno(1,2,3-cd)pyrene in μg/L

Notes:

Freshwater: critical low flow equal to the 7Q10; enter alternate low flow if approved by the State Saltwater (estuarine and marine): enter critical low flow if approved by the State; enter 0 if no entry Discharge flow is equal to the design flow or 1 MGD, whichever is less Optional entry for Q; leave 0 if no entry

Saltwater (estuarine and marine): only if approved by the State Leave 0 if no entry

pH, temperature, and ammonia required for all discharges
Hardness required for freshwater
Salinity required for saltwater (estuarine and marine)
Metals required for all discharges if present and if dilution factor is > 1
Enter 0 if non-detect or testing not required

if >1 sample, enter maximum

if >10 samples, may enter 95th percentile Enter 0 if non-detect or testing not required **Dilution Factor**

1.0

Dilution Factor	1.0					
A. Inorganics	TBEL applies if	bolded	WQBEL applies if bolded		Compliance Level applies if shown	
Ammonia	Report	mg/L				
Chloride	Report	μg/L				
Total Residual Chlorine	0.2	mg/L	7.5	μg/L	50	μg/L
Total Suspended Solids	30	mg/L		, c		. 0
Antimony	206	μg/L	4.3	mg/L		
Arsenic	104	μg/L	36	μg/L		
Cadmium	10.2	μg/L	9.4	μg/L		
Chromium III	323	μg/L	100.0	μg/L μg/L		
Chromium VI	323	μg/L μg/L	50	μg/L μg/L		
Copper	242		3.7			
Iron		μg/L		μg/L		
	5000	μg/L		μg/L		
Lead	160	μg/L	8.5	μg/L		
Mercury	0.739	μg/L	1.11	μg/L		
Nickel	1450	$\mu g/L$	8.3	$\mu g/L$		
Selenium	235.8	$\mu g/L$	71	$\mu g/L$		
Silver	35.1	$\mu g/L$	2.2	$\mu g/L$		
Zinc	420	$\mu g/L$	86	$\mu g/L$		
Cyanide	178	mg/L	1.0	$\mu g/L$		$\mu g/L$
B. Non-Halogenated VOCs						
Total BTEX	100	$\mu g/L$				
Benzene	5.0	μg/L				
1,4 Dioxane	200	μg/L				
Acetone	7.97	mg/L	200	~/T		
Phenol C. Halogenated VOCs	1,080	μg/L	300	μg/L		
Carbon Tetrachloride	4.4	μg/L				
1,2 Dichlorobenzene	600	μg/L				
1,3 Dichlorobenzene	320	μg/L				
1,4 Dichlorobenzene	5.0	$\mu g/L$				
Total dichlorobenzene	763	$\mu g/L$				
1,1 Dichloroethane	70	$\mu g/L$				
1,2 Dichloroethane	5.0	μg/L				
1,1 Dichloroethylene	3.2	μg/L				
Ethylene Dibromide	0.05	μg/L				
Methylene Chloride 1,1,1 Trichloroethane	4.6 200	μg/L				
1,1,2 Trichloroethane	5.0	μg/L μg/L				
Trichloroethylene	5.0 5.0	μg/L μg/L				
Tetrachloroethylene	5.0	μg/L μg/L				
cis-1,2 Dichloroethylene	70	μg/L				
Vinyl Chloride	2.0	μg/L				

D. Non-Halogenated SVOCs

190	$\mu g/L$	3.0	$\mu g/L$		
101	μg/L	2.2	$\mu g/L$		
1.0	μg/L				
1.0	μg/L	0.0038	$\mu g/L$		$\mu g/L$
1.0	μg/L	0.0038	$\mu g/L$		$\mu g/L$
1.0	$\mu g/L$	0.0038	$\mu g/L$		$\mu g/L$
1.0	$\mu g/L$	0.0038	$\mu g/L$		$\mu g/L$
1.0	$\mu g/L$	0.0038	$\mu g/L$		$\mu g/L$
1.0	$\mu g/L$	0.0038	$\mu g/L$		$\mu g/L$
1.0	$\mu g/L$	0.0038	μ g/L		$\mu g/L$
100	μg/L				
20	$\mu g/L$				
0.000064	$\mu g/L$			0.5	$\mu g/L$
1.0	$\mu g/L$				
5.0	mg/L				
Report	mg/L				
70	μg/L				
120	μg/L				
90	$\mu g/L$				
	101 1.0 1.0 1.0 1.0 1.0 1.0 1.0	101 μg/L 1.0 μg/L	101 μg/L 2.2 1.0 μg/L 1.0 μg/L 0.0038 1.0 μg/L 20 μg/L 20 μg/L 5.0 μg/L Report mg/L 70 μg/L 120 μg/L 120 μg/L	101 μg/L 2.2 μg/L 1.0 μg/L 1.0 μg/L 0.0038 μg/L 1.0 μg/L 1.0 μg/L 5.0 μg/L 5.0 mg/L 5.0 mg/L 70 μg/L 70 μg/L 120 μg/L	101 μg/L 2.2 μg/L 1.0 μg/L 1.0 μg/L 0.0038 μg/L 1.0 μg/L 1.0 μg/L 5.0 μg/L 5.0 mg/L 70 μg/L 70 μg/L 120 μg/L 120 μg/L

APPENDIX B

Laboratory Data





July 21, 2020

Barrett Smith Wilcox & Barton 996 Smith St Providence, RI 02908

Project Location: 60 Penhallow St.

Client Job Number:

Project Number: MCNB0001

Laboratory Work Order Number: 20G0470

M M Corthy

Enclosed are results of analyses for samples received by the laboratory on July 10, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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Wilcox & Barton 996 Smith St Providence, RI 02908 ATTN: Barrett Smith

REPORT DATE: 7/21/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: MCNB0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20G0470

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

PROJECT LOCATION: 60 Penhallow St.

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
MW-101	20G0470-01	Ground Water		608.3	
				624.1	
				625.1	
				EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	
				EPA 350.1	
				EPA 420.1	
				EPA 504.1	
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SM21-22 4500 CL G	
				SM21-22 4500 CN E	MA M-MA-086/CT PH-0574/NY11148
				Tri Chrome Calc.	



CASE NARRATIVE SUMMARY

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

REVISED 7/21/2020: Report revised to include ethanol on 624.1 analysis reporting list, per client request.

Qualifications:

L-01

Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side. Analyte & Samples(s) Qualified:

Bromoform

B261798-BS1

625.1

Qualifications:

S-07

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:

2,4,6-Tribromophenol (SIM)

B261909-BS1, B261909-BSD1

V-06

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

Analyte & Samples(s) Qualified:

Di-n-octylphthalate

20G0470-01[MW-101], B261768-BLK1, B261768-BS1, B261768-BSD1

Jua Watshington

Indeno(1,2,3-cd)pyrene (SIM)

B261909-BS1, B261909-BSD1

V-20

Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound. Analyte & Samples(s) Qualified:

Indeno(1,2,3-cd)pyrene (SIM)

20G0470-01[MW-101], B261909-BLK1

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

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Technical Representative



Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

103

70-130

Sample ID: 20G0470-01
Sample Matrix: Ground Water

4-Bromofluorobenzene

Volatile	Organic	Compounds b	y GC/MS
----------	---------	-------------	---------

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Acetone	<3.79	50.0	3.79	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
tert-Amyl Methyl Ether (TAME)	< 0.140	0.500	0.140	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Benzene	< 0.180	1.00	0.180	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Bromodichloromethane	< 0.160	2.00	0.160	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Bromoform	< 0.460	2.00	0.460	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Bromomethane	<1.38	2.00	1.38	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
tert-Butyl Alcohol (TBA)	<4.17	20.0	4.17	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Carbon Tetrachloride	< 0.110	2.00	0.110	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Chlorobenzene	< 0.150	2.00	0.150	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Chlorodibromomethane	< 0.210	2.00	0.210	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Chloroethane	< 0.360	2.00	0.360	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Chloroform	< 0.170	2.00	0.170	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Chloromethane	< 0.450	2.00	0.450	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,2-Dichlorobenzene	< 0.160	2.00	0.160	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,3-Dichlorobenzene	< 0.120	2.00	0.120	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,4-Dichlorobenzene	< 0.130	2.00	0.130	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,2-Dichloroethane	< 0.410	2.00	0.410	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,1-Dichloroethane	< 0.160	2.00	0.160	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,1-Dichloroethylene	< 0.320	2.00	0.320	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
trans-1,2-Dichloroethylene	< 0.310	2.00	0.310	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,2-Dichloropropane	< 0.200	2.00	0.200	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
cis-1,3-Dichloropropene	< 0.130	2.00	0.130	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,4-Dioxane	<22.5	50.0	22.5	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
trans-1,3-Dichloropropene	< 0.230	2.00	0.230	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Ethanol	<10.5	50.0	10.5	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Ethylbenzene	< 0.130	2.00	0.130	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Methyl tert-Butyl Ether (MTBE)	< 0.250	2.00	0.250	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Methylene Chloride	< 0.340	5.00	0.340	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,1,2,2-Tetrachloroethane	< 0.220	2.00	0.220	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Tetrachloroethylene	< 0.180	2.00	0.180	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Toluene	< 0.140	1.00	0.140	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,1,1-Trichloroethane	< 0.200	2.00	0.200	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
1,1,2-Trichloroethane	< 0.160	2.00	0.160	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Trichloroethylene	< 0.240	2.00	0.240	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Trichlorofluoromethane (Freon 11)	< 0.330	2.00	0.330	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Vinyl Chloride	< 0.450	2.00	0.450	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
m+p Xylene	< 0.300	2.00	0.300	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
o-Xylene	< 0.170	1.00	0.170	μg/L	1		624.1	7/13/20	7/13/20 12:25	EEH
Surrogates		% Reco	very	Recovery Limits		Flag/Qual				
1,2-Dichloroethane-d4		105		70-130					7/13/20 12:25	
Toluene-d8		98.0		70-130					7/13/20 12:25	

7/13/20 12:25

7/14/20 17:28



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

Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

68.3

Sample ID: 20G0470-01
Sample Matrix: Ground Water

p-Terphenyl-d14

Semivolatile Organic Compounds	: bv	GC/MS	
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Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene (SIM)	< 0.015	0.047	0.015	μg/L	1		625.1	7/14/20	7/14/20 17:28	IMR
Benzo(a)pyrene (SIM)	< 0.011	0.095	0.011	$\mu g/L$	1		625.1	7/14/20	7/14/20 17:28	IMR
Benzo(b)fluoranthene (SIM)	< 0.014	0.047	0.014	$\mu g/L$	1		625.1	7/14/20	7/14/20 17:28	IMR
Benzo(k)fluoranthene (SIM)	< 0.011	0.19	0.011	$\mu g/L$	1		625.1	7/14/20	7/14/20 17:28	IMR
Chrysene (SIM)	< 0.014	0.19	0.014	$\mu g/L$	1		625.1	7/14/20	7/14/20 17:28	IMR
Dibenz(a,h)anthracene (SIM)	< 0.016	0.095	0.016	$\mu g/L$	1		625.1	7/14/20	7/14/20 17:28	IMR
Indeno(1,2,3-cd)pyrene (SIM)	< 0.017	0.095	0.017	$\mu g/L$	1	V-20	625.1	7/14/20	7/14/20 17:28	IMR
Pentachlorophenol (SIM)	< 0.31	0.95	0.31	$\mu g/L$	1		625.1	7/14/20	7/14/20 17:28	IMR
Surrogates		% Reco	very	Recovery Limi	ts	Flag/Qual				
2-Fluorophenol (SIM)		44.9		15-110					7/14/20 17:28	
Phenol-d6 (SIM)		33.9		15-110					7/14/20 17:28	
Nitrobenzene-d5		70.9		30-130					7/14/20 17:28	
2-Fluorobiphenyl		60.6		30-130					7/14/20 17:28	
2,4,6-Tribromophenol (SIM)		92.5		15-110					7/14/20 17:28	

30-130

IMR

IMR

7/14/20 18:00

7/14/20 18:00



Analyte

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

Semivolatile Organic Compounds by - GC/MS

Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

0.495

0.492

Results

4.01

< 0.219

0.711

< 0.375

< 0.434

< 0.213

< 0.291

< 0.495

< 0.492

9.48

9.48

Sample ID: 20G0470-01
Sample Matrix: Ground Water

Acenaphthene

Anthracene

Acenaphthylene

Benzo(g,h,i)perylene

Di-n-butylphthalate

Diethylphthalate

Dimethylphthalate

Di-n-octylphthalate

Bis(2-Ethylhexyl)phthalate

RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
			Dilution	riag/Quai				
4.74	0.219	μg/L	1	J	625.1	7/14/20	7/14/20 18:00	IMR
4.74	0.219	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR
4.74	0.191	$\mu g/L$	1	J	625.1	7/14/20	7/14/20 18:00	IMR
4.74	0.375	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR
9.48	0.434	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR
9.48	0.213	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR
9.48	0.291	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR

625.1

625.1

7/14/20

7/14/20

V-06

2-Fluorophenol Phenol-d6		39.8 30.0		15-110 15-110					7/14/20 18:00 7/14/20 18:00	
Surrogates		% Reco	very	Recovery Limits		Flag/Qual				
Pyrene	< 0.242	4.74	0.242	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR
Phenanthrene	3.30	4.74	0.272	$\mu g/L$	1	J	625.1	7/14/20	7/14/20 18:00	IMR
Naphthalene	0.521	4.74	0.419	$\mu g/L$	1	J	625.1	7/14/20	7/14/20 18:00	IMR
Fluorene	3.82	4.74	0.232	$\mu g/L$	1	J	625.1	7/14/20	7/14/20 18:00	IMR
Fluoranthene	< 0.282	4.74	0.282	$\mu g/L$	1		625.1	7/14/20	7/14/20 18:00	IMR

 $\mu g/L$

 $\mu g/L$

1

7/15/20 3:12

7/15/20 3:12



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

Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

62.6

64.3

Sample ID: 20G0470-01
Sample Matrix: Ground Water

Tetrachloro-m-xylene [1]

Tetrachloro-m-xylene [2]

Polych	larinatad	Rinhanyle	By GC/ECD

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	< 0.0872	0.0948	0.0872	μg/L	1		608.3	7/13/20	7/15/20 3:12	JMB
Aroclor-1221 [1]	< 0.0763	0.0948	0.0763	$\mu g/L$	1		608.3	7/13/20	7/15/20 3:12	JMB
Aroclor-1232 [1]	< 0.0943	0.0948	0.0943	$\mu g/L$	1		608.3	7/13/20	7/15/20 3:12	JMB
Aroclor-1242 [1]	< 0.0820	0.0948	0.0820	$\mu g/L$	1		608.3	7/13/20	7/15/20 3:12	JMB
Aroclor-1248 [1]	< 0.0900	0.0948	0.0900	$\mu g/L$	1		608.3	7/13/20	7/15/20 3:12	JMB
Aroclor-1254 [1]	< 0.0498	0.0948	0.0498	$\mu g/L$	1		608.3	7/13/20	7/15/20 3:12	JMB
Aroclor-1260 [1]	< 0.0929	0.0948	0.0929	$\mu g/L$	1		608.3	7/13/20	7/15/20 3:12	JMB
Surrogates		% Reco	very	Recovery Limits	6	Flag/Qual				
Decachlorobiphenyl [1]		86.6	·	30-150					7/15/20 3:12	<u> </u>
Decachlorobiphenyl [2]		87.1		30-150					7/15/20 3:12	

30-150

30-150



Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

Sample ID: 20G0470-01
Sample Matrix: Ground Water

Metals Analyses (Total)

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Antimony	ND	1.0		μg/L	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Arsenic	19	0.80		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Cadmium	ND	0.20		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Chromium	2.3	1.0		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Chromium, Trivalent	0.0023			mg/L	1		Tri Chrome Calc.	7/13/20	7/14/20 12:02	QNW
Copper	9.9	1.0		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Iron	2.3	0.050		mg/L	1		EPA 200.7	7/13/20	7/14/20 12:12	TBC
Lead	1.5	0.50		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 13:50	QNW
Mercury	ND	0.00010		mg/L	1		EPA 245.1	7/13/20	7/14/20 14:05	AJL
Nickel	ND	5.0		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Selenium	ND	5.0	1.6	$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Silver	ND	0.20		$\mu g/L$	1		EPA 200.8	7/13/20	7/14/20 12:02	QNW
Zinc	ND	10		ug/L	1		EPA 200.8	7/13/20	7/14/20 12:02	ONW



Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

Sample ID: 20G0470-01
Sample Matrix: Ground Water

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

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Ammonia as N	ND	0.10	mg/L	1		EPA 350.1	7/13/20	7/15/20 10:44	MMH
Chloride	1100	100	mg/L	100		EPA 300.0	7/15/20	7/15/20 12:41	MMH
Chlorine, Residual	ND	0.020	mg/L	1		SM21-22 4500 CL G	7/10/20	7/11/20 0:42	DJM
Hexavalent Chromium	ND	0.0040	mg/L	1		SM21-22 3500 Cr B	7/10/20	7/10/20 19:15	AWA
Phenol	0.080	0.050	mg/L	1		EPA 420.1	7/14/20	7/15/20 12:00	LL
Total Suspended Solids	15	1.0	mg/L	1		SM21-22 2540D	7/13/20	7/13/20 13:37	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	1		EPA 1664B	7/14/20	7/14/20 9:30	LL



Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

Sample ID: 20G0470-01
Sample Matrix: Ground Water

Drinking Water Organics EPA 504.1

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.020	μg/L	1		EPA 504.1	7/13/20	7/14/20 0:39	TG
Surrogates		% Recovery	Recovery Limits	S	Flag/Qual				
1.2 Dibromonronono (1)		06.2	70.120					7/14/20 0:20	

1,3-Dibromopropane (1) 96.3 70-130 7/14/20 0:39



Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0470

Date Received: 7/10/2020
Field Sample #: MW-101

Sampled: 7/10/2020 09:35

Sample ID: 20G0470-01
Sample Matrix: Ground Water

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

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Cyanide		ND	0.005	mg/L	1		SM21-22 4500 CN E	7/14/20	7/14/20 10:40	AAL



Sample Extraction Data

Prep Method: SW-846 3510C Analytical Method: 608.3					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261776	1060	5.00	07/13/20	
Prep Method: SW-846 5030B Analytical Method: 624.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261798	5	5.00	07/13/20	
Prep Method: SW-846 3510C Analytical Method: 625.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261768	1060	1.00	07/14/20	
Prep Method: SW-846 3510C Analytical Method: 625.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261909	1060	1.00	07/14/20	
EPA 1664B Lab Number [Field ID]	Batch	Initial [mL]		Date	
20G0470-01 [MW-101]	B261859	1000		07/14/20	
Prep Method: EPA 200.7 Analytical Method: EPA 200.7 Lab Number [Field ID]	, Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261811	50.0	50.0	07/13/20	
Prep Method: EPA 200.8 Analytical Method: EPA 200.8	1				
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261812	50.0	50.0	07/13/20	
Prep Method: EPA 245.1 Analytical Method: EPA 245.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261808	6.00	6.00	07/13/20	
Prep Method: EPA 300.0 Analytical Method: EPA 300.0	•				
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261783	10.0	10.0	07/15/20	



Sample Extraction Data

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261822	100	100	07/13/20	
EPA 420.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261860	50.0	50.0	07/14/20	
Prep Method: EPA 504 water Analytical M	1ethod: EPA 504.1				
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261817	35.3	35.0	07/13/20	
SM21-22 2540D					
Lab Number [Field ID]	Batch	Initial [mL]		Date	
20G0470-01 [MW-101]	B261761	500		07/13/20	
SM21-22 3500 Cr B					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261725	50.0	50.0	07/10/20	
SM21-22 4500 CL G					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0470-01 [MW-101]	B261730	100	100	07/10/20	
Prep Method: EPA 200.8 Analytical Metho	od: Tri Chrome Calc.				
Lab Number [Field ID]	Batch	Initial [mL]		Date	
20G0470-01 [MW-101]	B261812	50.0		07/13/20	



QUALITY CONTROL

Spike

Source

%REC

RPD

Volatile Organic Compounds by GC/MS - Quality Control

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B261798 - SW-846 5030B										
Blank (B261798-BLK1)				Prepared &	Analyzed: 07	/13/20				
Benzene	ND	1.00	$\mu \text{g/L}$							
Bromodichloromethane	ND	2.00	$\mu g/L$							
Bromoform	ND	2.00	$\mu g/L$							
Bromomethane	ND	2.00	μg/L							
Carbon Tetrachloride	ND	2.00	μg/L							
Chlorobenzene	ND	2.00	μg/L							
Chlorodibromomethane	ND	2.00	μg/L							
Chloroethane	ND	2.00	μg/L							
Chloroform	ND	2.00	μg/L							
Chloromethane	ND	2.00	μg/L							
,2-Dichlorobenzene	ND	2.00	μg/L							
,3-Dichlorobenzene	ND	2.00	μg/L							
,4-Dichlorobenzene	ND	2.00	μg/L							
,2-Dichloroethane	ND	2.00	μg/L							
,1-Dichloroethane	ND	2.00	μg/L							
,1-Dichloroethylene	ND	2.00	μg/L							
rans-1,2-Dichloroethylene	ND	2.00	μg/L							
,2-Dichloropropane	ND	2.00	μg/L							
is-1,3-Dichloropropene	ND	2.00	μg/L							
rans-1,3-Dichloropropene	ND	2.00	μg/L							
Ethanol	ND	50.0	μg/L							
Ethylbenzene	ND	2.00	μg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	μg/L							
Methylene Chloride	ND	5.00	μg/L							
,1,2,2-Tetrachloroethane	ND	2.00	μg/L							
Tetrachloroethylene	ND	2.00	μg/L							
Foluene	ND	1.00	μg/L							
1,1,1-Trichloroethane	ND	2.00	μg/L							
1,1,2-Trichloroethane	ND	2.00	μg/L							
Frichloroethylene	ND	2.00	μg/L							
Frichlorofluoromethane (Freon 11)	ND	2.00	μg/L							
Vinyl Chloride	ND	2.00	μg/L							
n+p Xylene	ND	2.00	μg/L							
-Xylene	ND	1.00	μg/L							
Surrogate: 1,2-Dichloroethane-d4	26.2		μg/L	25.0		105	70-130			
Surrogate: Toluene-d8	24.9		μg/L	25.0		99.5	70-130			
Surrogate: 4-Bromofluorobenzene	25.3		μg/L	25.0		101	70-130			
LCS (B261798-BS1)			~		Analyzed: 07					
Benzene	19	1.00	μg/L	20.0		92.8	65-135			
Bromodichloromethane	24	2.00	μg/L	20.0		119	65-135			
Bromoform	26	2.00	μg/L	20.0		132 *	70-130			L-01
Bromomethane	16	2.00	μg/L	20.0		79.3	15-185			
Carbon Tetrachloride	24	2.00	μg/L	20.0		119	70-130			
Chlorobenzene	21	2.00	μg/L	20.0		106	65-135			
Chlorodibromomethane	25	2.00	μg/L	20.0		126	70-135			
Chloroethane	18	2.00	μg/L	20.0		92.0	40-160			
Chloroform	22	2.00	μg/L	20.0		109	70-135			
Chloromethane	15	2.00	μg/L	20.0		75.0	20-205			
1,2-Dichlorobenzene	21	2.00	μg/L	20.0		104	65-135			
,3-Dichlorobenzene	21	2.00	μg/L	20.0		106	70-130			
1,4-Dichlorobenzene	21	2.00	μg/L	20.0		104	65-135			



QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B261798 - SW-846 5030B										
LCS (B261798-BS1)				Prepared &	Analyzed: 07	/13/20				
1,2-Dichloroethane	23	2.00	μg/L	20.0		114	70-130			
1,1-Dichloroethane	21	2.00	$\mu g/L$	20.0		107	70-130			
1,1-Dichloroethylene	22	2.00	$\mu \text{g/L}$	20.0		112	50-150			
rans-1,2-Dichloroethylene	20	2.00	$\mu g/L$	20.0		101	70-130			
,2-Dichloropropane	21	2.00	$\mu g/L$	20.0		107	35-165			
eis-1,3-Dichloropropene	22	2.00	$\mu g/L$	20.0		111	25-175			
rans-1,3-Dichloropropene	25	2.00	$\mu g/L$	20.0		125	50-150			
Ethanol	220	50.0	$\mu g/L$	200		110	40-160			
Ethylbenzene	21	2.00	$\mu g/L$	20.0		105	60-140			
Methyl tert-Butyl Ether (MTBE)	22	2.00	$\mu g/L$	20.0		108	70-130			
Methylene Chloride	20	5.00	$\mu g/L$	20.0		98.8	60-140			
,1,2,2-Tetrachloroethane	22	2.00	$\mu g/L$	20.0		108	60-140			
Tetrachloroethylene	24	2.00	$\mu g/L$	20.0		119	70-130			
Toluene	21	1.00	$\mu g/L$	20.0		106	70-130			
,1,1-Trichloroethane	23	2.00	$\mu g/L$	20.0		117	70-130			
,1,2-Trichloroethane	22	2.00	$\mu g/L$	20.0		111	70-130			
Trichloroethylene	22	2.00	$\mu g/L$	20.0		110	65-135			
Trichlorofluoromethane (Freon 11)	23	2.00	$\mu \text{g}/L$	20.0		115	50-150			
Vinyl Chloride	25	2.00	$\mu \text{g}/L$	20.0		123	5-195			
n+p Xylene	41	2.00	$\mu g/L$	40.0		103	70-130			
p-Xylene	21	1.00	$\mu g/L$	20.0		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	25.3		μg/L	25.0		101	70-130			
Surrogate: Toluene-d8	24.5		μg/L	25.0		98.1	70-130			
Surrogate: 4-Bromofluorobenzene	25.2		μg/L	25.0		101	70-130			



QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B261909 - SW-846 3510C										
Blank (B261909-BLK1)				Prepared &	Analyzed: 07	/14/20				
Benzo(a)anthracene (SIM)	ND	0.050	μg/L							
Benzo(a)pyrene (SIM)	ND	0.10	μg/L							
Benzo(b)fluoranthene (SIM)	ND	0.050	μg/L							
Benzo(k)fluoranthene (SIM)	ND	0.20	μg/L							
Chrysene (SIM)	ND	0.20	$\mu g/L$							
Dibenz(a,h)anthracene (SIM)	ND	0.10	μg/L							
ndeno(1,2,3-cd)pyrene (SIM)	ND	0.10	$\mu g/L$							V-20
entachlorophenol (SIM)	ND	1.0	$\mu g/L$							
urrogate: 2-Fluorophenol (SIM)	92.4		μg/L	200		46.2	15-110			
urrogate: Phenol-d6 (SIM)	70.5		$\mu g/L$	200		35.2	15-110			
urrogate: Nitrobenzene-d5	75.6		$\mu g/L$	100		75.6	30-130			
urrogate: 2-Fluorobiphenyl	74.6		$\mu g/L$	100		74.6	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	211		μg/L	200		106	15-110			
urrogate: p-Terphenyl-d14	73.5		$\mu g/L$	100		73.5	30-130			
CS (B261909-BS1)				Prepared &	Analyzed: 07	/14/20				
enzo(a)anthracene (SIM)	50.8	1.0	μg/L	50.0		102	33-143			
Benzo(a)pyrene (SIM)	52.9	2.0	μg/L	50.0		106	17-163			
enzo(b)fluoranthene (SIM)	56.8	1.0	μg/L	50.0		114	24-159			
enzo(k)fluoranthene (SIM)	53.4	4.0	μg/L	50.0		107	11-162			
hrysene (SIM)	49.1	4.0	μg/L	50.0		98.2	17-168			
ibenz(a,h)anthracene (SIM)	58.9	2.0	μg/L	50.0		118	10-227			
ndeno(1,2,3-cd)pyrene (SIM)	61.7	2.0	μg/L	50.0		123	10-171			V-06
entachlorophenol (SIM)	41.3	20	μg/L	50.0		82.6	14-176			
urrogate: 2-Fluorophenol (SIM)	108		μg/L	200		53.9	15-110			
urrogate: Phenol-d6 (SIM)	84.4		μg/L	200		42.2	15-110			
urrogate: Nitrobenzene-d5	85.7		μg/L	100		85.7	30-130			
urrogate: 2-Fluorobiphenyl	88.8		μg/L	100		88.8	30-130			
urrogate: 2,4,6-Tribromophenol (SIM)	243		μg/L	200		122 *	15-110			S-07
urrogate: p-Terphenyl-d14	74.6		μg/L	100		74.6	30-130			
CS Dup (B261909-BSD1)				Prepared &	Analyzed: 07	/14/20				
enzo(a)anthracene (SIM)	48.0	1.0	μg/L	50.0		96.0	33-143	5.71	53	
enzo(a)pyrene (SIM)	49.6	2.0	μg/L	50.0		99.3	17-163	6.43	72	
enzo(b)fluoranthene (SIM)	53.1	1.0	μg/L	50.0		106	24-159	6.70	71	
enzo(k)fluoranthene (SIM)	50.0	4.0	μg/L	50.0		100	11-162	6.53	63	
hrysene (SIM)	46.4	4.0	μg/L	50.0		92.7	17-168	5.78	87	
bibenz(a,h)anthracene (SIM)	54.9	2.0	μg/L	50.0		110	10-227	7.03	126	
ideno(1,2,3-cd)pyrene (SIM)	57.7	2.0	μg/L	50.0		115	10-171	6.70	99	V-06
entachlorophenol (SIM)	38.8	20	μg/L	50.0		77.6	14-176	6.34	86	
urrogate: 2-Fluorophenol (SIM)	105		μg/L	200		52.3	15-110			
urrogate: Phenol-d6 (SIM)	80.3		μg/L	200		40.2	15-110			
urrogate: Nitrobenzene-d5	84.1		μg/L	100		84.1	30-130			
urrogate: 2-Fluorobiphenyl	85.4		μg/L	100		85.4	30-130			
urrogate: 2,4,6-Tribromophenol (SIM)	231		μg/L μg/L	200		115 *	15-110			S-07
surrogate: p-Terphenyl-d14	71.0		μg/L	100		71.0	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 B261768 - SW-846 3510C										
Blank (B261768-BLK1)				Prepared &	Analyzed: 07	/14/20				
Acenaphthene	ND	5.00	$\mu g/L$							
Acenaphthylene	ND	5.00	$\mu g/L$							
Anthracene	ND	5.00	$\mu g/L$							
Benzo(g,h,i)perylene	ND	5.00	$\mu g/L$							
Di-n-butylphthalate	ND	10.0	$\mu g/L$							
Diethylphthalate	ND	10.0	$\mu g/L$							
Dimethylphthalate	ND	10.0	$\mu g/L$							
Pi-n-octylphthalate	ND	10.0	$\mu g/L$							V-06
Bis(2-Ethylhexyl)phthalate	ND	10.0	$\mu g/L$							
luoranthene	ND	5.00	$\mu g/L$							
Fluorene	ND	5.00	$\mu g/L$							
Vaphthalene	ND	5.00	$\mu g/L$							
henanthrene	ND	5.00	$\mu g/L$							
Pyrene	ND	5.00	$\mu \text{g}/L$							
urrogate: 2-Fluorophenol	86.4		μg/L	200		43.2	15-110			
surrogate: Phenol-d6	64.4		$\mu g/L$	200		32.2	15-110			
urrogate: Nitrobenzene-d5	72.9		$\mu g/L$	100		72.9	30-130			
urrogate: 2-Fluorobiphenyl	74.6		$\mu g/L$	100		74.6	30-130			
urrogate: 2,4,6-Tribromophenol	159		$\mu g/L$	200		79.4	15-110			
urrogate: p-Terphenyl-d14	84.1		μg/L	100		84.1	30-130			
.CS (B261768-BS1)				Prepared &	Analyzed: 07	/14/20				
Acenaphthene	34.4	5.00	$\mu g \! / \! L$	50.0		68.9	47-145			
Acenaphthylene	32.5	5.00	$\mu g/L$	50.0		65.0	33-145			
anthracene	35.5	5.00	$\mu g/L$	50.0		71.0	27-133			
enzo(g,h,i)perylene	34.8	5.00	$\mu g/L$	50.0		69.6	10-219			
i-n-butylphthalate	43.4	10.0	μg/L	50.0		86.8	10-120			
Diethylphthalate	39.3	10.0	μg/L	50.0		78.7	10-120			
Dimethylphthalate	37.3	10.0	μg/L	50.0		74.6	10-120			
Di-n-octylphthalate	50.8	10.0	μg/L	50.0		102	4-146			V-06
Bis(2-Ethylhexyl)phthalate	46.9	10.0	μg/L	50.0		93.9	8-158			
luoranthene	36.6	5.00	μg/L	50.0		73.1	26-137			
Fluorene	36.1	5.00	μg/L	50.0		72.2	59-121			
Naphthalene	31.9	5.00	μg/L	50.0		63.9	21-133			
henanthrene	35.9	5.00	$\mu \text{g/L}$	50.0		71.8	54-120			
yrene	34.6	5.00	μg/L	50.0		69.2	52-120			
urrogate: 2-Fluorophenol	87.4		$\mu g/L$	200		43.7	15-110			
Surrogate: Phenol-d6	67.9		$\mu g/L$	200		34.0	15-110			
Surrogate: Nitrobenzene-d5	68.8		$\mu g/L$	100		68.8	30-130			
Surrogate: 2-Fluorobiphenyl	73.1		$\mu g/L$	100		73.1	30-130			
Surrogate: 2,4,6-Tribromophenol	155		$\mu g/L$	200		77.5	15-110			
Surrogate: p-Terphenyl-d14	79.5		μg/L	100		79.5	30-130			



QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyta	D agg-14	Reporting	Unita	Spike	Source	%REC	%REC	DDD	RPD Limit	Not
Analyte	Result	Limit	Units	Level	Result	/0KEC	Limits	RPD	Limit	Notes
Batch B261768 - SW-846 3510C										
LCS Dup (B261768-BSD1)				Prepared &	Analyzed: 07	/14/20				
Acenaphthene	33.7	5.00	μg/L	50.0		67.5	47-145	2.05	48	
Acenaphthylene	32.3	5.00	$\mu g/L$	50.0		64.7	33-145	0.463	74	
Anthracene	34.8	5.00	$\mu g/L$	50.0		69.5	27-133	2.16	66	
Benzo(g,h,i)perylene	33.9	5.00	$\mu \text{g/L}$	50.0		67.7	10-219	2.71	97	
Di-n-butylphthalate	41.7	10.0	$\mu \text{g/L}$	50.0		83.4	10-120	4.09	47	
Diethylphthalate	37.6	10.0	$\mu g/L$	50.0		75.3	10-120	4.44	100	
Dimethylphthalate	36.9	10.0	$\mu \text{g/L}$	50.0		73.8	10-120	1.08	183	
Di-n-octylphthalate	47.7	10.0	$\mu g/L$	50.0		95.3	4-146	6.42	69	V-06
Bis(2-Ethylhexyl)phthalate	45.1	10.0	$\mu g/L$	50.0		90.2	8-158	4.00	82	
Fluoranthene	35.4	5.00	$\mu \text{g/L}$	50.0		70.9	26-137	3.14	66	
Fluorene	34.7	5.00	$\mu g/L$	50.0		69.4	59-121	3.96	38	
Naphthalene	32.4	5.00	$\mu g/L$	50.0		64.8	21-133	1.52	65	
Phenanthrene	35.3	5.00	$\mu g/L$	50.0		70.6	54-120	1.74	39	
Pyrene	33.2	5.00	μg/L	50.0		66.5	52-120	3.98	49	
Surrogate: 2-Fluorophenol	85.2		μg/L	200		42.6	15-110			
Surrogate: Phenol-d6	65.1		$\mu g/L$	200		32.5	15-110			
Surrogate: Nitrobenzene-d5	69.4		$\mu g/L$	100		69.4	30-130			
Surrogate: 2-Fluorobiphenyl	73.0		$\mu g/L$	100		73.0	30-130			
Surrogate: 2,4,6-Tribromophenol	151		$\mu g/L$	200		75.4	15-110			
Surrogate: p-Terphenyl-d14	76.8		$\mu g/L$	100		76.8	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
Batch B261776 - SW-846 3510C										
Blank (B261776-BLK1)				Prepared: 07	7/13/20 Analy	zed: 07/15/2	20			
Aroclor-1016	ND	0.100	$\mu g/L$							
Aroclor-1016 [2C]	ND	0.100	$\mu g/L$							
Aroclor-1221	ND	0.100	$\mu g/L$							
Aroclor-1221 [2C]	ND	0.100	$\mu g/L$							
aroclor-1232	ND	0.100	$\mu g/L$							
Aroclor-1232 [2C]	ND	0.100	μg/L							
Aroclor-1242	ND	0.100	μg/L							
aroclor-1242 [2C]	ND	0.100	μg/L							
croclor-1248	ND	0.100	μg/L							
roclor-1248 [2C]	ND	0.100	$\mu g/L$							
aroclor-1254	ND	0.100	μg/L							
aroclor-1254 [2C]	ND	0.100	μg/L							
aroclor-1260	ND	0.100	$\mu g/L$							
aroclor-1260 [2C]	ND	0.100	$\mu g/L$							
urrogate: Decachlorobiphenyl	0.586		μg/L	1.00		58.6	30-150			
urrogate: Decachlorobiphenyl [2C]	0.585		μg/L	1.00		58.5	30-150			
Surrogate: Tetrachloro-m-xylene	0.704		μg/L	1.00		70.4	30-150			
urrogate: Tetrachloro-m-xylene [2C]	0.742		μg/L	1.00		74.2	30-150			
.CS (B261776-BS1)				Prepared: 07	7/13/20 Analy	zed: 07/15/	20			
Aroclor-1016	0.383	0.200	μg/L	0.500	, , , , , , , , , , , , , , , , , , , ,	76.6	50-140			
aroclor-1016 [2C]	0.406	0.200	μg/L	0.500		81.2	50-140			
aroclor-1260	0.369	0.200	μg/L	0.500		73.8	8-140			
aroclor-1260 [2C]	0.403	0.200	μg/L	0.500		80.7	8-140			
urrogate: Decachlorobiphenyl	1.97		μg/L	2.00		98.6	30-150			
urrogate: Decachlorobiphenyl [2C]	1.99		$\mu g/L$	2.00		99.5	30-150			
Surrogate: Tetrachloro-m-xylene	1.34		$\mu g/L$	2.00		66.8	30-150			
urrogate: Tetrachloro-m-xylene [2C]	1.42		$\mu g/L$	2.00		70.9	30-150			
CS Dup (B261776-BSD1)				Prepared: 07	7/13/20 Analy	zed: 07/15/2	20			
roclor-1016	0.399	0.200	μg/L	0.500		79.7	50-140	4.05		
roclor-1016 [2C]	0.427	0.200	μg/L	0.500		85.3	50-140	4.90		
aroclor-1260	0.375	0.200	μg/L	0.500		74.9	8-140	1.44		
aroclor-1260 [2C]	0.415	0.200	$\mu \text{g}/L$	0.500		83.1	8-140	2.90		
urrogate: Decachlorobiphenyl	1.72		μg/L	2.00		86.2	30-150			
urrogate: Decachlorobiphenyl [2C]	1.74		$\mu g/L$	2.00		87.0	30-150			
urrogate: Tetrachloro-m-xylene	1.39		$\mu g/L$	2.00		69.6	30-150			
urrogate: Tetrachloro-m-xylene [2C]	1.47		$\mu \text{g}/L$	2.00		73.3	30-150			
Iatrix Spike (B261776-MS1)	Sou	rce: 20G0470-	01	Prepared: 07	7/13/20 Analy	zed: 07/15/2	20			
croclor-1016	0.355	0.190	μg/L	0.474	ND	74.9	50-140			
roclor-1016 [2C]	0.386	0.190	$\mu \text{g/L}$	0.474	ND	81.5	50-140			
roclor-1260	0.347	0.190	$\mu \text{g}/L$	0.474	ND	73.3	8-140			
roclor-1260 [2C]	0.385	0.190	$\mu g/L$	0.474	ND		8-140			
urrogate: Decachlorobiphenyl	1.73		μg/L	1.90		91.4	30-150			
surrogate: Decachlorobiphenyl [2C]	1.75		$\mu g/L$	1.90		92.4	30-150			
urrogate: Tetrachloro-m-xylene	1.25		μg/L	1.90		66.1	30-150			
surrogate: Tetrachloro-m-xylene [2C]	1.31		μg/L	1.90		68.9	30-150			



Surrogate: Tetrachloro-m-xylene [2C]

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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 B261776 - SW-846 3510C										
Matrix Spike Dup (B261776-MSD1)	Sour	ce: 20G0470-	01	Prepared: 07	7/13/20 Analy	zed: 07/15/	/20			
Aroclor-1016	0.330	0.190	μg/L	0.476	ND	69.4	50-140	7.15	36	
Aroclor-1016 [2C]	0.357	0.190	$\mu \text{g/L}$	0.476	ND	75.0	50-140	7.80	36	
Aroclor-1260	0.328	0.190	$\mu \text{g/L}$	0.476	ND	68.8	8-140	5.81	38	
Aroclor-1260 [2C]	0.363	0.190	$\mu g/L$	0.476	ND	76.2	8-140	5.91	38	
Surrogate: Decachlorobiphenyl	1.57		μg/L	1.90		82.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.63		$\mu g/L$	1.90		85.5	30-150			
Surrogate: Tetrachloro-m-xylene	1.16		μg/L	1.90		61.1	30-150			

 $\mu g/L$

1.90

63.4

30-150

1.21



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B261808 - EPA 245.1										
Blank (B261808-BLK1)				Prepared: 07	7/13/20 Anal	yzed: 07/14/	20			
Mercury	ND	0.00010	mg/L	•		-				
LCS (B261808-BS1)				Prepared: 07	7/13/20 Anal	vzed: 07/14/	20			
Mercury	0.00391	0.00010	mg/L	0.00400		97.8	85-115			
LCS Dup (B261808-BSD1)				Prepared: 07	7/13/20 Anal	vzed: 07/14/	20			
Mercury	0.00390	0.00010	mg/L	0.00400	713720 711141	97.4	85-115	0.338	20	
•		*****			7/12/20 4 1					
Duplicate (B261808-DUP1)		rce: 20G0470- 0.00010		Prepared: 07	7/13/20 Anal	-	20	NG	20	
Mercury	ND	0.00010	mg/L		NE)		NC	30	
Matrix Spike (B261808-MS1)	Sou	rce: 20G0470-	01	Prepared: 07	7/13/20 Anal	yzed: 07/14/	20			
Mercury	0.00387	0.00010	mg/L	0.00400	NE	96.7	75-125			
Batch B261811 - EPA 200.7										
Dlaub (D2(1011 DI V/1)				Droporod: 07	7/13/20 Anal	ward: 07/14	20			
Blank (B261811-BLK1)	ND	0.050	mg/L	Prepared. 07	//13/20 Allai	yzeu. 07/14/	20			
	ND	0.050	g/ L							
LCS (B261811-BS1)					7/13/20 Anal	-				
Iron	4.13	0.050	mg/L	4.00		103	85-115			
LCS Dup (B261811-BSD1)				Prepared: 07	7/13/20 Anal	yzed: 07/14/	20			
Iron	4.05	0.050	mg/L	4.00		101	85-115	2.07	20	
Duplicate (B261811-DUP1)	Sou	rce: 20G0470-	01	Prepared: 07	7/13/20 Anal	yzed: 07/14/	20			
Iron	2.33	0.050	mg/L		2.30)		1.08	20	
Matrix Spike (B261811-MS1)	Sou	rce: 20G0470-	.01	Prepared: 07	7/13/20 Anal	vzed: 07/14/	20			
Iron	6.33	0.050	mg/L	4.00	2.30	-	70-130			
Batch B261812 - EPA 200.8										
Blank (B261812-BLK1) Antimony	ND	1.0	ца/І	Prepared: 07	7/13/20 Anal	yzed: 07/14/	20			
Arsenic	ND ND	0.80	μg/L μg/L							
Cadmium	ND ND	0.20	μg/L							
Chromium	ND	1.0	μg/L							
Copper	ND	1.0	μg/L							
Lead	ND	0.50	μg/L							
Nickel	ND	5.0	μg/L							
0.1.		5.0	μg/L							
Selenium	ND									
Silver	ND ND	0.20	μg/L							



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B261812 - EPA 200.8										
LCS (B261812-BS1)				Prepared: 07	/13/20 Analy	zed: 07/14/	20			
Antimony	510	10	μg/L	500		102	85-115			
Arsenic	527	8.0	$\mu \text{g/L}$	500		105	85-115			
Cadmium	512	2.0	$\mu g/L$	500		102	85-115			
Chromium	534	10	$\mu g/L$	500		107	85-115			
Copper	1040	10	$\mu g/L$	1000		104	85-115			
Lead	528	5.0	$\mu g/L$	500		106	85-115			
Nickel	494	50	$\mu g/L$	500		98.9	85-115			
Selenium	510	50	$\mu g/L$	500		102	85-115			
Silver	505	2.0	$\mu g/L$	500		101	85-115			
line	1090	100	μg/L	1000		109	85-115			
CS Dup (B261812-BSD1)				Prepared: 07	/13/20 Analy	zed: 07/14/	20			
Antimony	518	10	$\mu \text{g}/L$	500		104	85-115	1.40	20	
Arsenic	539	8.0	$\mu \text{g}/L$	500		108	85-115	2.18	20	
Cadmium	518	2.0	$\mu \text{g}/L$	500		104	85-115	1.29	20	
Chromium	549	10	$\mu \text{g}/L$	500		110	85-115	2.83	20	
Copper	1050	10	$\mu \text{g}/L$	1000		105	85-115	0.970	20	
Lead	529	5.0	$\mu g/L$	500		106	85-115	0.277	20	
Nickel	496	50	$\mu g/L$	500		99.1	85-115	0.246	20	
elenium	525	50	$\mu \text{g/L}$	500		105	85-115	2.83	20	
lilver	508	2.0	$\mu \text{g/L}$	500		102	85-115	0.659	20	
Zinc	1090	100	$\mu g/L$	1000		109	85-115	0.458	20	
Duplicate (B261812-DUP1)	Sourc	e: 20G0470-	01	Prepared: 07	/13/20 Analy	zed: 07/14/	20			
Antimony	ND	1.0	μg/L		ND			NC	20	
Arsenic	18.9	0.80	$\mu g/L$		18.9			0.412	20	
Cadmium	ND	0.20	$\mu g/L$		ND			NC	20	
Chromium	2.32	1.0	$\mu g/L$		2.28			2.08	20	
Copper	10.2	1.0	μg/L		9.91			2.43	20	
ead	1.52	0.50	$\mu g/L$		1.51			0.382	20	
Nickel	ND	5.0	μg/L		ND			NC	20	
Selenium	ND	5.0	$\mu g/L$		ND			NC	20	
Silver	ND	0.20	$\mu g/L$		ND			NC	20	
Zinc	ND	10	μg/L		ND			NC	20	
Matrix Spike (B261812-MS1)	Sourc	e: 20G0470-		Prepared: 07	/13/20 Analy	zed: 07/14/	20			
Antimony	517	10	μg/L	500	ND	103	70-130			
Arsenic	556	8.0	μg/L	500	18.9	107	70-130			
Cadmium	513	2.0	μg/L	500	ND	103	70-130			
Chromium	526	10	$\mu \text{g/L}$	500	ND	105	70-130			
Copper	1060	10	$\mu \text{g/L}$	1000	9.91	105	70-130			
ead	540	5.0	$\mu \text{g}/L$	500	1.51	108	70-130			
lickel	488	50	$\mu \text{g/L}$	500	ND	97.6	70-130			
Selenium	522	50	$\mu \text{g/L}$	500	ND	104	70-130			
			-							
Silver	495	2.0	$\mu \text{g/L}$	500	ND	99.0	70-130			



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
	resuit	Limit	Cinto	Level	resurt	/ UNLLC	Limits	1011	Limit	110003
Batch B261725 - SM21-22 3500 Cr B										
Blank (B261725-BLK1)				Prepared & A	Analyzed: 07	/10/20				
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B261725-BS1)				Prepared & A	Analyzed: 07	/10/20				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		113	90-115			
LCS Dup (B261725-BSD1)				Prepared & A	Analyzed: 07	/10/20				
Hexavalent Chromium	0.11	0.0040	mg/L	0.100		115	90-115	1.34	11	
Matrix Spike (B261725-MS1)	Sou	rce: 20G0470-	01	Prepared & A	Analyzed: 07	/10/20				
Hexavalent Chromium	0.080	0.0040	mg/L	0.100	ND	79.5	34.7-148			
Matrix Spike Dup (B261725-MSD1)	Sou	rce: 20G0470-	01	Prepared & A	Analyzed: 07	/10/20				
Hexavalent Chromium	0.083	0.0040	mg/L	0.100	ND	82.6	34.7-148	3.77	13.2	
Batch B261730 - SM21-22 4500 CL G										
Blank (B261730-BLK1)		Prepared: 07	7/10/20 Anal	yzed: 07/11/	/20		_			
Chlorine, Residual	ND	0.020	mg/L							
LCS (B261730-BS1)				Prepared: 07	7/10/20 Anal	yzed: 07/11/	/20			
Chlorine, Residual	0.59	0.020	mg/L	0.641		91.3	85.3-130			
LCS Dup (B261730-BSD1)				Prepared: 07/10/20 Analyzed: 07/11/20						
Chlorine, Residual	0.59	0.020	mg/L	0.641		92.4	85.3-130	1.18	13.6	
Duplicate (B261730-DUP1)	Sou	rce: 20G0470-	01	Prepared: 07	7/10/20 Anal					
Chlorine, Residual	ND	0.020	mg/L		ND)		NC	29.4	
Matrix Spike (B261730-MS1)	Sou	rce: 20G0470-	01	Prepared: 07	7/10/20 Anal	yzed: 07/11/	/20			
Chlorine, Residual	0.28	0.020	mg/L	0.300		91.8	10-169			
Batch B261761 - SM21-22 2540D										
Blank (B261761-BLK1)				Prepared & A	Analyzed: 07	/13/20				
Total Suspended Solids	ND	2.5	mg/L							
LCS (B261761-BS1)				Prepared & A	Analyzed: 07	/13/20				
Total Suspended Solids	124	10	mg/L	200		62.0	57.4-123			
Batch B261783 - EPA 300.0										
Blank (B261783-BLK1)		Prepared & Analyzed: 07/15/20								
Chloride	ND	1.0	mg/L							



QUALITY CONTROL

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

Analysis	D 1	Reporting	11	Spike	Source	0/PEC	%REC	DDD	RPD	NI.
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B261783 - EPA 300.0										
LCS (B261783-BS1)				Prepared &	Analyzed: 07	/15/20				
Chloride	9.9		mg/L	10.0		99.3	90-110			
LCS Dup (B261783-BSD1)				Prepared &	Analyzed: 07	/15/20				
Chloride	9.9		mg/L	10.0		99.3	90-110	0.0161	20	
Batch B261822 - EPA 350.1										
Blank (B261822-BLK1)				Prepared: 07	7/13/20 Anal	yzed: 07/15/	20			
Ammonia as N	ND	0.10	mg/L							
LCS (B261822-BS1)				Prepared: 07	7/13/20 Anal	yzed: 07/15/	20			
Ammonia as N	2.0	0.10	mg/L	2.00		101	90-110			
LCS Dup (B261822-BSD1)				Prepared: 07	7/13/20 Anal	yzed: 07/15/	20			
Ammonia as N	2.1	0.10	mg/L	2.00		104	90-110	2.98	20	
Batch B261859 - EPA 1664B										
Blank (B261859-BLK1)				Prepared &	Analyzed: 07	/14/20				
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B261859-BS1)				Prepared &	Analyzed: 07	/14/20				
Silica Gel Treated HEM (SGT-HEM)	7.6		mg/L	10.0		76.0	64-132			
Batch B261860 - EPA 420.1										
Blank (B261860-BLK1)				Prepared: 07	7/14/20 Anal	yzed: 07/15/	20			
Phenol	ND	0.050	mg/L							
LCS (B261860-BS1)				Prepared: 07	7/14/20 Anal	yzed: 07/15/	20			
Phenol	0.52	0.050	mg/L	0.500		105	75.6-130			
LCS Dup (B261860-BSD1)				Prepared: 07	7/14/20 Anal	yzed: 07/15/	20			
Phenol	0.53	0.050	mg/L	0.500		106	75.6-130	1.43	10.3	
Duplicate (B261860-DUP1)	Sour	rce: 20G0470-	-01	Prepared: 07	7/14/20 Anal	yzed: 07/15/	20			
Phenol	0.10	0.050	mg/L		0.080)		24.7	37.2	
Matrix Spike (B261860-MS1)	Sour	rce: 20G0470-	-01	Prepared: 07/14/20 Analyzed: 07/15/20						
Phenol	0.46	0.050	mg/L	0.500	0.080		34.1-149			



QUALITY CONTROL

Drinking Water Organics EPA 504.1 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B261817 - EPA 504 water										
Blank (B261817-BLK1)				Prepared &	Analyzed: 07	/13/20				
1,2-Dibromoethane (EDB)	ND	0.021	μg/L							
Surrogate: 1,3-Dibromopropane	1.04		μg/L	1.04		99.2	70-130			
LCS (B261817-BS1)				Prepared &	Analyzed: 07	/13/20				
1,2-Dibromoethane (EDB)	0.194	0.021	μg/L	0.260		74.4	70-130			
Surrogate: 1,3-Dibromopropane	1.06		μg/L	1.04		102	70-130			
LCS Dup (B261817-BSD1)				Prepared &	Analyzed: 07	/13/20				
1,2-Dibromoethane (EDB)	0.210	0.021	μg/L	0.262		80.0	70-130	7.88		
Surrogate: 1,3-Dibromopropane	1.10		μg/L	1.05		104	70-130			
MRL Check (B261817-MRL1)				Prepared &	Analyzed: 07	/13/20				
1,2-Dibromoethane (EDB)	0.0200	0.021	μg/L	0.0210		95.0	0-200			
Surrogate: 1,3-Dibromopropane	1.03		μg/L	1.05		98.2	70-130			
MRL Check (B261817-MRL2)				Prepared &	Analyzed: 07	/13/20				
1,2-Dibromoethane (EDB)	0.0154	0.021	μg/L	0.0206		75.0	0-200			
Surrogate: 1,3-Dibromopropane	0.968		μg/L	1.03		94.0	70-130			



FLAG/QUALIFIER SUMMARY

	(
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).
L-01	Laboratory fortified blank /laboratory control sample recovery outside of control limits. Data validation is not affected since all results are "not detected" for all samples in this batch for this compound and bias is on the high side.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.
V-20	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side. Data validation is not affected since sample result was "not detected" for this compound.

QC result is outside of established limits.



CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
608.3 in Water	
Aroclor-1016	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1016 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
624.1 in Water	
Acetone	CT,NY,MA,NH
tert-Amyl Methyl Ether (TAME)	MA
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
tert-Butyl Alcohol (TBA)	NY,MA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dioxane	MA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethanol	NY,MA,NH
Ethylbenzene Methyl test Dutyl Ether (MTDE)	CT,NY,MA,NH,RI,NC,ME,VA
Methyl tert-Butyl Ether (MTBE)	NY,MA,NH,NC
Methylene Chloride	CT,NY,MA,NH,RI,NC,ME,VA
Naphthalene 1,1,2,2-Tetrachloroethane	NY,MA,NC
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
тепастногоетутепе	CT,NY,MA,NH,RI,NC,ME,VA



CERTIFICATIONS

Certified Analyses included in this Report

Certified Analyses included in this Report		
Analyte	Certifications	
624.1 in Water		
Toluene	CT,NY,MA,NH,RI,NC,ME,VA	
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA	
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA	
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA	
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA	
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA	
m+p Xylene	CT,NY,MA,NH,RI,NC	
o-Xylene	CT,NY,MA,NH,RI,NC	
625.1 in Water		
Acenaphthene	CT,MA,NH,NY,NC,RI,ME,VA	
Acenaphthylene	CT,MA,NH,NY,NC,RI,ME,VA	
Anthracene	CT,MA,NH,NY,NC,RI,ME,VA	
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA	
Di-n-butylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
1,3-Dichlorobenzene	MA,NC	
1,4-Dichlorobenzene	MA,NC	
1,2-Dichlorobenzene	MA,NC	
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Bis(2-Ethylhexyl)phthalate	CT,MA,NH,NY,NC,RI,ME,VA	
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA	
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA	
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA	
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA	
Phenol	CT,MA,NH,NY,NC,RI,ME,VA	
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA	
2-Fluorophenol	NC	
2-Fluorophenol	NC,VA	
Phenol-d6	VA	
Nitrobenzene-d5	VA	
EPA 200.7 in Water		
Iron	CT,MA,NH,NY,RI,NC,ME,VA	
EPA 200.8 in Water		
Antimony	CT,MA,NH,NY,RI,NC,ME,VA	
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA	
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA	
Chromium	CT,MA,NH,NY,RI,NC,ME,VA	
Copper	CT,MA,NH,NY,RI,NC,ME,VA	
Lead	CT,MA,NH,NY,RI,NC,ME,VA	
Nickel	CT,MA,NH,NY,RI,NC,ME,VA	

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

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

EPA 245.1 in Water

Selenium

Silver

Zinc



CERTIFICATIONS

Certified Analyses included in this Report

Certifications Analyte EPA 245.1 in Water Mercury CT,MA,NH,RI,NY,NC,ME,VA EPA 300.0 in Water Chloride NC,NY,MA,VA,ME,NH,CT,RI EPA 350.1 in Water Ammonia as N NC,NY,MA,NH,RI,ME,VA EPA 420.1 in Water Phenol CT,MA,NH,NY,RI,NC,ME,VA SM21-22 2540D in Water Total Suspended Solids CT,MA,NH,NY,RI,NC,ME,VA SM21-22 3500 Cr B in Water

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

Hexavalent Chromium

SM21-22 4500 CL G in Water

Chlorine, Residual CT,MA,RI,ME

SM21-22 4500 CN E in Water

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021

OL40000

Glassware in freezer? Y / N Prepackaged Cooler? Y / N *Contest is not responsible for missing samples from prepacked est values your partnership on each project and will try to assist with missing information, but will not b Glassware in the fridge? analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Chain of Custody is a legal document that must be complete and accurate and is used to determine what Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The 1 Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water Total Number Of 2 Preservation Codes: X = Sodium Hydroxide SL = Sludge SOL = Solid O = Other (please S = Sulfuric Acid B = Sodium Bisulfate Thiosulfate

O = Other (please
define) Non Soxh(et ² Preservation Code M = Methanol N = Nitric Acid PCB ONLY coolers Soxhiet BACTERIA GLASS_ VIALS ENCORE PLASTIC T = Sodium S = Soil define) A = Air H=HCL possible sample concentration within the Conc H · High; M · Medium; L · Low; C · Clean; U · Please use the following codes to indicate St 10:002/6-007 Chromatogram
AIHA-LAP,LLC DOShWS WELLS and Alth-Lar, Light ace Code column above: ANALYSIS REQUESTED held accountable. Unknown A93 8 H991 809 WES/ 422 70/\5 Doc # 381 Rev 2_06262019 Towl Memis = Sb, As, Cd, G, Co, Fe, Pb, Hg, Ni, Se, Ag, Zn dop. MCP Certification Form Required RCP Certification Form Required MA MCP Required WRTA 64A State DW Required CT RCP Requir Ocasost WS 39 Spruce Street East Longmeadow, MA 01028 ENCORE BACTERIA Sold Alexander Field Fittered Field Fittered es estados Sa Lab to Filter Lab to Filter 2 hor +Ar PLASTIC D School MBTA GLASS bsmith, cutchelan, movee CHAIN OF CUSTODY RECORD VIALS 0 0 0 0 Conc Code X Client Comments: NPDES RGP Program http://www.contestlabs.com ద Due Date: Municipatity ¹Matrix Code Brownfield 10-Day Š 3-Day WSED # 4-Day CLP Like Data Pkg Required: COMP/GRAB z FAS 10-Day (std) Ending Date/Time Government mail To: 4:35 ax To #; ormat: Other: Federal -Day -Day -Day 4 Çţ Project Entity Beginning Date/Time 7/10/26 LONGLAN NA Project Location: 60 Penhallow Strat, Presmut All Email: info@contestiabs.com 18/ Date/Time: Wilex & Borton, In. Client Sample ID / Description Phone: 413-525-2332 Fax: 413-525-6405 Date/Time: Date/Time: Date/Time: Unr 12B MCNB006) Ó 18, Theoriza MW-101 711012 Kriws Common Don 364- 414b 2 الأ Project Number: McNBoool Sampled By: C. Mentage Project Manager: B. Metr Con-Test Quote Name/Number: CON-IEST Relinquished by: (signature) eceived by: (signature) (eceived by: (signature) Work Order# Con-Test ŧ nvoice Recipient: Address: AID Phone: 602 Page 32 of 34

								Table of Co	ontents	
reezer? Y / N	Cooler? Y/N responsible for from prepacked ers	des: nd Water e Water ing Water	please	on Codes:	ł id Acid Sisulfate łydroxide	lease	NLY let xhlet	stody. The sermine what ibility. Con ut will not b	Province	

Glassware in the fridge? Y / N Total Number Of: Page Z of Z ² Preservation Code BACTERIA Matrix Cod GW = Groun WM = Waste DW = Drinkin A = Air S = Soil SL = Sludge SOL = Solid O = Other (p PLASTIC ENCORE. M = Methanol N = Nitric Aci S = Sulfuric A B = Sodium Bi X = Sodium Hy T = Sodium Thiosulfate O = Other (ple define) analyses the laboratory will perform. Any missing information is not the laboratory's responsi Test values your partnership on each project and will try to assist with missing information, bu GLASS Non So VIALS PCB O Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Cu Glassware in f Soxh Prepackaged *Contest is not nissing samples Chain of Custody is a legal document that must be complete and accurate and is used to det 2 Preservat I = fced H = HCL possible sample concentration within the Conc H - High; M - Medium; L - Low; C - Clean; U -Please use the following codes to indicate NELAC and AlHA-LAP, LLC Accredited Chromatogram

AIHA-LAP, LLC Code column above: ANALYSIS REQUESTED held accountable. Unknown Other ८०४ × WRTA (and 459 East Longmeadow, MA 01028 ENCORE BACTERIA EXCEL Field Filtered Field Fiftered Lab to Filter Lab to Filter PLASTIC School MWRA MBTA GLASS T bsmith, cutelan, moved CHAIN OF CUSTODY RECORD VIALS X 0 0 0 0 'Matrix Conc Code Code Client Comments: NPDES RGP Parents Х フ PDF Municipality Brownfield Due Date: 10-Day 3-Day 4-Day ટુ LAT CLP Like Data Pkg Required: COMP/GRAB Cab 72 har FAS 10-Day (std) Ending Date/Time Government mail To: 4:35 Fax To #: ormat: Federal '-Day Other: 7.Day 1-Day City Project Entity Beginning Date/Time 02/01/L Address: #18 Cummers Dive, Univ 128, Londontay MT € Project Location: 60 Penhallow Snet , Pertronum NH Email: info@contestlabs.com 170 00 16 Client Sample 1D / Description Date/Time: Phone: 413-525-2332 Witne & Burn Fax: 413-525-6405 Date / Time; Date/Time: ate//ime: Date/Time: Jate/Time: McNBOOD B. Dungley MW-10) 7/10/20 Project Manager: Bucery Smrth Project Number: McNBace Con-Test Quote Name/Number: 603-369-4190 Sampled By: C. Me. COB-KAS Relinquished by: (signature) linquished by: (signature) ed by: (sychological (eceived by: (signature) Received by: (signature) Work Order# Con-Test Invoice Recipient: Comments: d by: Phone: Page 33 of 34

Doc # 381 Rev 2_06262019

39 Spruce Street

http://www.contestlabs.com

200000

I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples_____



Doc# 277 Rev 5 2017

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

Client	INIA	r a k							
Receiv		ón		Date _	7/10	NO	Time	1790	
How were th	e samples	In Cooler	$\overline{\mathbf{I}}$	No Cooler_	, ,	On Ice	T	No Ice	
receiv	ed?	Direct from Samp	oling	-		Ambient		Melted Ice	
			By Gun#	$\overline{}$		Actual Tem	1D- 9.6	-	
Were samp		T	By Blank #			Actual Tem			
Temperatu					o Sample	s Tampered	**************************************	AI IA	
	Custody Se		NA	-	•	ree With Sa			
	COC Relin	iquisned <i>:</i> eaking/loose caps	on any cam	-	Chair Ag	ice willi oa	impies:		
Is COC in in			Oli aliy Sali	· -	nles recei	ved within h	olding time?	†	
Did COC in	•	Client	†	Analysis	†		er Name	7	
pertinent Inf		Project		- 'ID's -	1		Dates/Times		
•		d out and legible?	+			•			
Are there La		-	E	-	Who was	s notified?			
Are there Ru			AT	- 0	Who was	s notified?	Mike		
Are there Sh		RUF	2 × 7	EG Topo		s notified?	Mand.		
Is there enou		·?	+	-17/6/					
	-	ere applicable?			MS/MSD?	F	reusasinasina Tito Various	+	
Proper Medi	The back is to be a second and the s		Ŧ	·	s splitting	samples re	quired?	<i>†</i>	****
Were trip bla			=	 	On COC?	F			
Do all sampl	and the Ne			Acid	T		Base	<u></u>	
Vials	#	Containers:	#			#			#
Unp-	•	1 Liter Amb.	Я	1 Liter F	Plastic	7	16 oz	z Amb.	
HCL-	3	500 mL Amb.	91	500 mL	Plastic	I	8oz An	nb/Clear	
Meoh-		250 mL Amb.		250 mL	Plastic	2	4oz An	nb/Clear	
Bisulfate-		Flashpoint		Col./Ba	cteria		2oz An	nb/Clear	
DI-		Other Glass		Other F	Plastic		En	core	
Thiosulfate-	3	SOC Kit		Plastic	Bag	***************************************	Frozen:		
Sulfuric-		Perchlorate		Ziplo	ock				
				Unused N	ledia				
Vials	#	Containers:	#			#			#
Unp-		1 Liter Amb.		1 Liter I	Plastic			z Amb.	
		500 mL Amb.		500 mL	Plastic			nb/Clear	
HCL-		0-0 1 4 1	1	250 1	Diactic	Ī	407 An	nb/Clear	
HCL- Meoh-		250 mL Amb.	<u> </u>	250 mL	riasiic	<u> </u>		***************************************	
Meoh- Bisulfate-		Col./Bacteria		Flash	point		2oz An	nb/Clear	
Meoh- Bisulfate- DI-		Col./Bacteria Other Plastic		Flash Other	point Glass		2oz An En	***************************************	
Meoh- Bisulfate- DI- Thiosulfate-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Col./Bacteria Other Plastic		Flash Other	point Glass Bag		2oz An En	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An En	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An En	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An En	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An En	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An En	nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		Col./Bacteria Other Plastic SOC Kit		Flash Other Plastic	point Glass Bag		2oz An En	nb/Clear	



July 24, 2020

Barrett Smith Wilcox & Barton 996 Smith St Providence, RI 02908

Project Location: 60 Penhallow St.

Client Job Number:

Project Number: MCNB0001

Laboratory Work Order Number: 20G0755

M M Corthy

Enclosed are results of analyses for samples received by the laboratory on July 17, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

Table of Contents

Sample Summary	3
Case Narrative	4
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Wilcox & Barton 996 Smith St Providence, RI 02908 ATTN: Barrett Smith

REPORT DATE: 7/24/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: MCNB0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20G0755

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

PROJECT LOCATION: 60 Penhallow St.

FIELD SAMPLE # LAB ID: MATRIX SAMPLE DESCRIPTION TEST SUB LAB

MW-101 20G0755-01 Ground Water SW-846 8015C



CASE NARRATIVE SUMMARY

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

SW-846 8015C

Qualifications:

H-10

Analysis was requested after the recommended holding time had passed.

Analyte & Samples(s) Qualified:

20G0755-01[MW-101]

0-31

Sample chromatography does not match reference standard exactly, possibly due to weathering.

Analyte & Samples(s) Qualified:

Fuel Oil #2

20G0755-01[MW-101]

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

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington
Technical Representative

Lua Watslengton



Project Location: 60 Penhallow St. Sample Description: Work Order: 20G0755

Date Received: 7/17/2020

Field Sample #: MW-101 Sampled: 7/10/2020 09:35

Sample ID: 20G0755-01
Sample Matrix: Ground Water

Sample Flags: H-10

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Fuel Oil #2	1.1	0.19	mg/L	1	O-31	SW-846 8015C	7/20/20	7/24/20 7:33	RDD
Surrogates		% Recovery	Recovery Limit	s	Flag/Qual				
2 Eluarahinhanyl		95.9	40.140					7/24/20 7:22	

Petroleum Hydrocarbons Analyses



Sample Extraction Data

Prep Method: SW-846 3510C Analytical Method: SW-846 8015C

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20G0755-01 [MW-101]	B262230	1040	1.00	07/20/20



QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B262230 - SW-846 3510C										
Blank (B262230-BLK1)				Prepared: 07	/20/20 Anal	yzed: 07/23/2	20			
TPH (C9-C36)	ND	0.20	mg/L							
Surrogate: 2-Fluorobiphenyl	0.0642		mg/L	0.100		64.2	40-140			
LCS (B262230-BS1)				Prepared: 07	/20/20 Anal	yzed: 07/23/2	20			
TPH (C9-C36)	0.719	0.20	mg/L	1.00		71.9	40-140			
Surrogate: 2-Fluorobiphenyl	0.0781		mg/L	0.100		78.1	40-140			
LCS Dup (B262230-BSD1)				Prepared: 07	/20/20 Anal	yzed: 07/23/2	20			
TPH (C9-C36)	0.696	0.20	mg/L	1.00		69.6	40-140	3.30	25	
Surrogate: 2-Fluorobiphenyl	0.0737		mg/L	0.100		73.7	40-140			



FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
H-10	Analysis was requested after the recommended holding time had passed.
O-31	Sample chromatography does not match reference standard exactly, possibly due to weathering.



CERTIFICATIONS

Certified Analyses included in this Report

Analyte Certifications

No certified Analyses included in this Report

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021

Table of Contents Glassware in freezer? Y / N Prepackaged Cooler? Y / N missing samples from prepacked *Contest is not responsible for fest values your partnership on each project and will try to assist with missing information, but will not b Glassware in the fridge? Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The 1 Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water ² Preservation Codes: Total Number Of X = Sodium Hydroxide SL = Sludge SOL = Solid O = Other (please B = Sodium Bisulfate Thiosulfate

O = Other (please define) H = HCL M = Methanbl N = Nitric Acid Non Soxh(et S = Sulfuric Acid PCB ONLY ² Preservation Code coolers Soxhiet SACTERIA VIALS GLASS PLASTIC ENCORE T = Sodium define) A = Air 5 = Soil 5.00.05/15.002 possible sample concentration within the Conc H·High; M·Medium; L·Low; C·Clean; U· Please use the following codes to indicate HELAC and Altha-Lap, Life Accredited Chromatogram
AIHA-LAP,LLC AIHA-LAP,LLC 005hV/5 Code column above; ANALYSIS REQUESTED held accountable. Unknown EPA 8 H991 S WES/ 122 Doc # 381 Rev 2_06262019 Towl Memls = Sb, As, Cd, G, Cu, Fe, Pb, Hg, NI, Se, Ag, Zn (oh MCP Certification Form Required MA MCP Requirer MA State DW Required Oca Boosh MS Ammeria RCP Certification Form Requ CT RCP Requ 39 Spruce Street East Longmeadow, MA 01028 ENCORE BACTERIA ved Metalls Samples Field Fittered Field Fiftered in ospijate Sa Lab to Filter Lab to Filter 2 hor +Ar GLASS PLASTIC S School MBTA bsmith, curelan, movee CHAIN OF CUSTODY RECORD VIALS Φ 0 0 0 0 Conc Code \mathbf{X} Client Comments: NPDES ROP Program http://www.contestlabs.com ద Municipatity Due Date: Matrix Brownfield 10-Day 3 3-Day WSED & 4-Day analysis, per client request - RJM 7/20/2020 CLP Like Data Pkg Required: COMP/GRAB Sample reactivated for TPH Fingerprint Ş PAS 10-Day (std) Ending Date/Time Government mail To: 4.35 ax To #; -ormat: Federal Other: -Day -Day -Day + Çity Project Entity Beginning Date/Time 7/10/2 LONDON NA Project Location: 60 Penhallow Street, Presmut All Email: info@contestiabs.com 33 Date/Time: Wilex & Born In Client Sample ID / Description Phone: 413-525-2332 Fax: 413-525-6405 Jime: Date/Time: Date/Time: Date/Time: Unr 12B MC/Booo) Ó 18, Therring MW-101 20G0755 711012 Smith Common Don 364- 4140 2 الأ Project Number: McN Boool Sampled By: C. Menters Project Manager: B. Metr Con-Test Quote Name/Number: Relinquished by: (signature) eceived by: (signature) (eceived by: (signature) Work Order# Con-Test ŧ nvoice Recipient: Address: AID

Page 10 of 12

Phone: **602**

200000

COD-TRAINERS

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

East Longmeadow, MA 01028 39 Spruce Street

Doc # 381 Rev 2_06262019

Glassware in freezer? Y / N *Contest is not responsible for missing samples from prepacked Prepackaged Cooler? Y/N Glassware in the fridge? Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium 'Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water Total Number Of: 2 Preservation Codes: A= Air S = Soil SL = Sludge SOL = Solid O = Other (please define) Thiosulfate O = Other (please define) Non Soxhlet PCB ONLY Z } Page Z of Z coolers ² Preservation Code Soxhlet BACTER!A_ PLASTIC ENCORE GLASS. VIALS H= HCL l = Iced possible sample concentration within the Conc H - High; M - Medium; L - Low; C - Clean; U -Please use the following codes to indicate NELAC and AlHA-LAP, LLC Accredited Chromatogram

AIHA-LAP, LLC Code column above: ANALYSIS REQUESTED Other 705 EOB × WRTA (and 459 displaye on also shown ENCORE BACTERIA EXCEL Field Filtered Field Filtered Lab to Filter Lab to Filter PLASTIC School MWRA MBTA GLASS Q bsmith, cultelan, moved VIALS X 0 0 0 0 Conc Code NPDES RGP PRIMATES Х > PDF Municipality Due Date: Matrix Brownfield 10-Day 3-рау -Day ટુ LAT CLP Like Data Pkg Required: COMP/GRAB 626 72 Nevs FAS 10-Day (std) Ending Date/Time Government mail To: 4:35 ax To #: ormat. Federal Client Comments: Other: 7-Day -Đay -Day City Project Entity Beginning Date/Time address: #18 Commers Dive, Univ 128, Losberton MT SI017 € Project Location: 60 Penhallow Snet , Pertronun NH Email: info@contestlabs.com 170 00 100 Client Sample ID / Description 777 Wites & Burn Fax: 413-525-6405 Date / Time; Date/Time: Date/Time: ate//ime: Date/Time: Date/Time: Mc NB000 B Thereton MW-10) 7/10/20 Project Manager: Burety Smrth Project Number: McNBace Con-Test Quote Name/Number: 603-369-4190 Sampled By: C.M. Retinquished by: (signature) linquished by: (signature ed by: (sychological (eceived by: (signature) Received by: (signature) Work Order# Con-Test Invoice Recipient: Comments: žd by: Phone:

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I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples_____



Doc# 277 Rev 5 2017

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

		$\sim 1 - 1$							
Client Receive	ed By	rid B		Date _	7/10	No	Time	_1770_	
How were th	e samples	In Cooler	T	No Cooler	, .	On Ice	T	No Ice	
receiv	ed?	Direct from Samp	lina			Ambient		Melted Ice	
		Direct from Camp	-	7		Actual Tem	D- 9.6		
Were samp	les within	+	By Gun #	a					
Temperatur	e? 2-6°C		By Blank #			Actual Tem			
Was	Custody Se	eal Intact?	NA	<u></u>	•	s Tampered		NH	
Was	COC Relin	quished?	<u></u>	Does	Chain Ag	ree With Sa	mples?	T	
Are the	re broken/l	eaking/loose caps	on any sam	_	<u> </u>			*	
Is COC in in-	k/ Legible?	T			iples recei		olding time?		
Did COC ir	nclude all	Client		_ Analysis _	<u> </u>	•	er Name	<u></u>	
pertinent Infe	ormation?	Project	<u> </u>	_ ID's _		Collection	Dates/Times		
Are Sample	labels filled	d out and legible?	<u></u>	-					
Are there Lat	to Filters	?		_	Who wa	s notified?			
Are there Ru	shes?		AT	W &	Who wa	s notified?	Mike		
Are there She	ort Holds?	hit.	PXX	10 BO	Who wa	s notified?	mand.		
Is there enou	igh Volume	?	<u> </u>	1(5)			•		
Is there Head	dspace who	ere applicable?		in suuriyang	MS/MSD?			+	
Proper Media	a/Containe	rs Used?	+	<u>.</u>	ls splitting	samples red	quired?		****
Were trip bla	nks receive	ed?	=		On COC?	_ F		4	
Do all sample	and the Ne			Acid			Base	<u></u>	
Vials	#	Containers:	#			#			#
Unp-		1 Liter Amb.	Ŕ	1 Liter F	Plastic	j	16 oz	z Amb.	
HCL-						<u> </u>			
	7	1 500 mL Amb.	7	500 mL	Plastic		8oz An	nb/Clear	
	3	500 mL Amb. 250 mL Amb.	- 21	500 mL 250 mL		1		nb/Clear nb/Clear	
Meoh-	3	250 mL Amb.		250 mL	Plastic	1	4oz An	****	
Meoh- Bisulfate-	3	250 mL Amb. Flashpoint			Plastic icteria	1	4oz An 2oz An	nb/Clear	
Meoh- Bisulfate- DI-		250 mL Amb.		250 mL Col./Ba	Plastic acteria Plastic	3	4oz An 2oz An	nb/Clear nb/Clear	
Meoh- Bisulfate-	3	250 mL Amb. Flashpoint Other Glass		250 mL Col./Ba Other F	Plastic acteria Plastic Bag	3	4oz An 2oz An En	nb/Clear nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate-		250 mL Amb. Flashpoint Other Glass SOC Kit		250 mL Col./Ba Other F Plastic Ziplo	Plastic acteria Plastic Bag ock	1	4oz An 2oz An En	nb/Clear nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate		250 mL Col./Ba Other F Plastic	Plastic acteria Plastic Bag ock	<u> </u>	4oz An 2oz An En	nb/Clear nb/Clear	***************************************
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers:		250 mL Col./Ba Other F Plastic Ziplo Unused N	Plastic acteria Plastic Bag ock	*	4oz An 2oz An En Frozen:	nb/Clear nb/Clear core	***************************************
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb.		250 mL Col./Ba Other F Plastic Ziple Unused N	Plastic acteria Plastic Bag ock fledia	#	4oz An 2oz An En Frozen:	nb/Clear nb/Clear core	***************************************
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb.		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL	Plastic Plastic Bag Dck Media Plastic Plastic	#	4oz An 2oz An En Frozen:	nb/Clear nb/Clear core	#
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb.		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL	Plastic elastic	*	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An	nb/Clear nb/Clear core z Amb. nb/Clear	#
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria		250 mL Col./Ba Other F Plastic Ziplo Unused N 1 Liter F 500 mL 250 mL Flash	Plastic elastic	#	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	nb/Clear nb/Clear core z Amb. nb/Clear nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL	Plastic ecteria Plastic Bag ock Media Plastic Plastic Plastic Plastic point Glass	#	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	***
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate-		250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	#	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	***
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI-	3	250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other G Plastic	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	#	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	*
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	3	250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other G Plastic	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	*	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	3	250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other G Plastic	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	*	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	***
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	3	250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other G Plastic	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	#	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	3	250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other G Plastic	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	#	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	
Meoh- Bisulfate- DI- Thiosulfate- Sulfuric- Vials Unp- HCL- Meoh- Bisulfate- DI- Thiosulfate- Sulfuric-	3	250 mL Amb. Flashpoint Other Glass SOC Kit Perchlorate Containers: 1 Liter Amb. 500 mL Amb. 250 mL Amb. Col./Bacteria Other Plastic SOC Kit		250 mL Col./Ba Other F Plastic Ziple Unused N 1 Liter F 500 mL 250 mL Flash Other G Plastic	Plastic Plastic Bag Dck Media Plastic Plastic Plastic Plastic Plastic Plastic Plastic Second	***	4oz An 2oz An En Frozen: 16 oz 8oz An 4oz An 2oz An	z Amb. nb/Clear nb/Clear nb/Clear	



August 4, 2020

Barrett Smith Wilcox & Barton 996 Smith St Providence, RI 02908

Project Location: 60 Penhallow St

Client Job Number:

Project Number: MCNB0001

Laboratory Work Order Number: 20G0943

M M Corthy

Enclosed are results of analyses for samples received by the laboratory on July 22, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Raymond J. McCarthy Project Manager

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Wilcox & Barton 996 Smith St Providence, RI 02908 ATTN: Barrett Smith

REPORT DATE: 8/4/2020

PURCHASE ORDER NUMBER:

PROJECT NUMBER: MCNB0001

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20G0943

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

PROJECT LOCATION: 60 Penhallow St

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
SW-1	20G0943-01	Water		608.3	
				624.1	
				625.1	
				EPA 1664B	
				EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				EPA 300.0	
				EPA 350.1	
				EPA 420.1	
				EPA 504.1	
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SM21-22 4500 CL G	
				SM21-22 4500 CN E	CT PH-0197/NY11742
				Tri Chrome Calc.	



CASE NARRATIVE SUMMARY

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



625.1

Qualifications:

S-07

One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are > 10%.

Analyte & Samples(s) Qualified:

2,4,6-Tribromophenol (SIM)

 $20G0943-01[SW-1],\,B262815-BLK1,\,B262815-BS1,\,B262815-BSD1,\,B262815-MSD1$

EPA 200.7

Qualifications:

DL-03

Elevated reporting limit due to matrix interference.

Analyte & Samples(s) Qualified:

Iron

20G0943-01[SW-1], B262612-DUP1

MS-19

Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.

Analyte & Samples(s) Qualified:

Hardness

20G0943-01[SW-1], B262612-MS1

EPA 200.8

Qualifications:

DL-15

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

Analyte & Samples(s) Qualified:

Antimony

20G0943-01[SW-1], B262614-DUP1

Cadmium

20G0943-01[SW-1], B262614-DUP1

Load

20G0943-01[SW-1]

Nickel

20G0943-01[SW-1], B262614-DUP1

Silver

20G0943-01[SW-1], B262614-DUP1

Zinc

20G0943-01[SW-1], B262614-DUP1

SM21-22 3500 Cr B

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

Hexavalent Chromium

20G0943-01[SW-1]

SM21-22 4500 CL G

Qualifications:

H-03

Sample received after recommended holding time was exceeded.

Analyte & Samples(s) Qualified:

Chlorine, Residual

20G0943-01[SW-1], B262475-DUP1, B262475-MS1



R-03

Duplicate RPD outside of control limits. Reduced precision is expected for values near the reporting limit.

Analyte & Samples(s) Qualified:

Chlorine, Residual

20G0943-01[SW-1], B262475-DUP1

Z-01

SM 4500 CL G test had a calibration point outside of acceptable back-calculated recovery. Re-analysis yielded similar non-conformance.

Analyte & Samples(s) Qualified:

Chlorine, Residual

20G0943-01[SW-1]

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

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Tod E. Kopyscinski Laboratory Director



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

Sample Description:

Project Location: 60 Penhallow St Date Received: 7/22/2020 Field Sample #: SW-1

Sampled: 7/21/2020 15:00

100

97.6

70-130

70-130

Sample ID: 20G0943-01
Sample Matrix: Water

Toluene-d8

4-Bromofluorobenzene

Volatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acetone	<3.79	50.0	3.79	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
tert-Amyl Methyl Ether (TAME)	< 0.140	0.500	0.140	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
Benzene	< 0.180	1.00	0.180	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
Bromodichloromethane	< 0.160	2.00	0.160	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
Bromoform	< 0.460	2.00	0.460	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
Bromomethane	<1.38	5.00	1.38	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
tert-Butyl Alcohol (TBA)	<4.17	20.0	4.17	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Carbon Tetrachloride	< 0.110	2.00	0.110	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Chlorobenzene	< 0.150	2.00	0.150	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Chlorodibromomethane	< 0.210	2.00	0.210	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Chloroethane	< 0.360	2.00	0.360	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Chloroform	< 0.170	2.00	0.170	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Chloromethane	< 0.450	2.00	0.450	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,2-Dichlorobenzene	< 0.160	2.00	0.160	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,3-Dichlorobenzene	< 0.120	2.00	0.120	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,4-Dichlorobenzene	< 0.130	2.00	0.130	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
1,2-Dichloroethane	< 0.410	2.00	0.410	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
1,1-Dichloroethane	< 0.160	2.00	0.160	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,1-Dichloroethylene	< 0.320	2.00	0.320	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
trans-1,2-Dichloroethylene	< 0.310	2.00	0.310	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,2-Dichloropropane	< 0.200	2.00	0.200	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
cis-1,3-Dichloropropene	< 0.130	2.00	0.130	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,4-Dioxane	<22.5	50.0	22.5	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
trans-1,3-Dichloropropene	< 0.230	2.00	0.230	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Ethanol	<10.5	50.0	10.5	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Ethylbenzene	< 0.130	2.00	0.130	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Methyl tert-Butyl Ether (MTBE)	< 0.250	2.00	0.250	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Methylene Chloride	< 0.340	5.00	0.340	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,1,2,2-Tetrachloroethane	< 0.220	2.00	0.220	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
Tetrachloroethylene	< 0.180	2.00	0.180	μg/L	1		624.1	7/23/20	7/23/20 23:10	BRF
Toluene	< 0.140	1.00	0.140	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,1,1-Trichloroethane	< 0.200	2.00	0.200	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
1,1,2-Trichloroethane	< 0.160	2.00	0.160	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Trichloroethylene	< 0.240	2.00	0.240	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Trichlorofluoromethane (Freon 11)	< 0.330	2.00	0.330	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Vinyl Chloride	< 0.450	2.00	0.450	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
m+p Xylene	< 0.300	2.00	0.300	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
o-Xylene	< 0.170	1.00	0.170	$\mu g/L$	1		624.1	7/23/20	7/23/20 23:10	BRF
Surrogates		% Reco	very	Recovery Limits	.	Flag/Qual				
1,2-Dichloroethane-d4		90.3		70-130					7/23/20 23:10	
Talyana d0		100		70.120					7/22/20 22:10	

7/23/20 23:10

7/23/20 23:10



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

Project Location: 60 Penhallow St Sample Description:

Date Received: 7/22/2020
Field Sample #: SW-1

Sampled: 7/21/2020 15:00

Sample ID: 20G0943-01
Sample Matrix: Water

Semivolatile	0	C 1-	1	CCMC
Semivolatile	Organic	Compounds	nv	CTC/WIS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene (SIM)	< 0.016	0.052	0.016	μg/L	1		625.1	7/27/20	7/28/20 10:42	RMW
Benzo(a)pyrene (SIM)	< 0.012	0.10	0.012	μg/L	1		625.1	7/27/20	7/28/20 10:42	RMW
Benzo(b)fluoranthene (SIM)	< 0.015	0.052	0.015	$\mu g/L$	1		625.1	7/27/20	7/28/20 10:42	RMW
Benzo(k)fluoranthene (SIM)	< 0.012	0.21	0.012	μg/L	1		625.1	7/27/20	7/28/20 10:42	RMW
Chrysene (SIM)	< 0.015	0.21	0.015	μg/L	1		625.1	7/27/20	7/28/20 10:42	RMW
Dibenz(a,h)anthracene (SIM)	< 0.018	0.10	0.018	μg/L	1		625.1	7/27/20	7/28/20 10:42	RMW
Indeno(1,2,3-cd)pyrene (SIM)	< 0.019	0.10	0.019	μg/L	1		625.1	7/27/20	7/28/20 10:42	RMW
Pentachlorophenol (SIM)	< 0.34	1.0	0.34	$\mu g/L$	1		625.1	7/27/20	7/28/20 10:42	RMW
Surrogates		% Reco	overy	Recovery Limit	s	Flag/Qual				
2-Fluorophenol (SIM)		57.2		15-110					7/28/20 10:42	
Phenol-d6 (SIM)		43.2		15-110					7/28/20 10:42	
Nitrobenzene-d5		80.7		30-130					7/28/20 10:42	
2-Fluorobiphenyl		75.8		30-130					7/28/20 10:42	
2,4,6-Tribromophenol (SIM)		118	*	15-110		S-07			7/28/20 10:42	
p-Terphenyl-d14		79.3		30-130					7/28/20 10:42	



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

Project Location: 60 Penhallow St Sample Description:

Date Received: 7/22/2020

Field Sample #: SW-1
Sample ID: 20G0943-01
Sample Matrix: Water

Sampled: 7/21/2020 15:00

			Semivol	atile Organic Co	mpounds by	- GC/MS				
								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Acenaphthene	< 0.238	5.15	0.238	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Acenaphthylene	< 0.238	5.15	0.238	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Anthracene	< 0.208	5.15	0.208	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Benzo(g,h,i)perylene	< 0.408	5.15	0.408	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Di-n-butylphthalate	< 0.472	10.3	0.472	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Diethylphthalate	< 0.232	10.3	0.232	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Dimethylphthalate	< 0.316	10.3	0.316	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Di-n-octylphthalate	< 0.538	10.3	0.538	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Bis(2-Ethylhexyl)phthalate	< 0.535	10.3	0.535	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Fluoranthene	< 0.306	5.15	0.306	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Fluorene	< 0.253	5.15	0.253	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Naphthalene	< 0.456	5.15	0.456	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Phenanthrene	< 0.296	5.15	0.296	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Pyrene	< 0.263	5.15	0.263	$\mu g/L$	1		625.1	7/27/20	7/28/20 15:26	IMR
Surrogates		% Reco	very	Recovery Limit	ts	Flag/Qual				
2-Fluorophenol		51.6		15-110					7/28/20 15:26	
Phenol-d6		39.1		15-110					7/28/20 15:26	
Nitrobenzene-d5		73.1		30-130					7/28/20 15:26	
2-Fluorobiphenyl		79.0		30-130					7/28/20 15:26	
2,4,6-Tribromophenol		87.0		15-110					7/28/20 15:26	
p-Terphenyl-d14		93.2		30-130					7/28/20 15:26	



Project Location: 60 Penhallow St Sample Description: Work Order: 20G0943

Date Received: 7/22/2020
Field Sample #: SW-1

Sampled: 7/21/2020 15:00

Sample ID: 20G0943-01
Sample Matrix: Water

Polychlorinated Biphenyls By (GC/ECD
--------------------------------	--------

								Date	Date/Time	
Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aroclor-1016 [1]	< 0.101	0.109	0.101	μg/L	1		608.3	7/28/20	7/30/20 6:12	PJG
Aroclor-1221 [1]	< 0.0880	0.109	0.0880	$\mu g/L$	1		608.3	7/28/20	7/30/20 6:12	PJG
Aroclor-1232 [1]	< 0.109	0.109	0.109	$\mu g/L$	1		608.3	7/28/20	7/30/20 6:12	PJG
Aroclor-1242 [1]	< 0.0945	0.109	0.0945	$\mu g/L$	1		608.3	7/28/20	7/30/20 6:12	PJG
Aroclor-1248 [1]	< 0.104	0.109	0.104	$\mu g/L$	1		608.3	7/28/20	7/30/20 6:12	PJG
Aroclor-1254 [1]	< 0.0574	0.109	0.0574	$\mu g/L$	1		608.3	7/28/20	7/30/20 6:12	PJG
Aroclor-1260 [1]	< 0.107	0.109	0.107	$\mu g/L$	1		608.3	7/28/20	7/30/20 6:12	PJG
Surrogates		% Reco	very	Recovery Limits	s	Flag/Qual				
Decachlorobiphenyl [1]		86.9		30-150					7/30/20 6:12	
Decachlorobiphenyl [2]		92.8		30-150					7/30/20 6:12	
Tetrachloro-m-xylene [1]		76.8		30-150					7/30/20 6:12	
Tetrachloro-m-xylene [2]		83.5		30-150					7/30/20 6:12	



Analyte

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

Metals Analyses (Total)

mg/L

 $\mu g/L$

 $\mu g/L$

 $\mu g/L$

μg/L

mg/L

1

5

5

5

5

10

DL-15

DL-15

DL-15

MS-19

Project Location: 60 Penhallow St Sample Description:

Results

ND

19

ND

6.2

0.0062

130

ND

ND

ND

ND

190

ND

ND

5600

RL

5.0

4.0

1.0

5.0

5.0

0.25

2.5

0.00010

25

25

1.0

50

14

Date Received: 7/22/2020

Field Sample #: SW-1 Sample ID: 20G0943-01 Sample Matrix: Water

Antimony

Cadmium

Chromium

Copper

Iron

Lead

Mercury

Selenium

Nickel

Silver

Zinc

Hardness

Chromium, Trivalent

Arsenic

Sampled: 7/21/2020 15:00

DL

8.2

				Date	Date/Time	
Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
$\mu g/L$	5	DL-15	EPA 200.8	7/24/20	7/27/20 14:50	QNW
$\mu g/L$	5		EPA 200.8	7/24/20	7/27/20 14:50	QNW
$\mu g/L$	5	DL-15	EPA 200.8	7/24/20	7/27/20 14:50	QNW
$\mu g/L$	5		EPA 200.8	7/24/20	7/28/20 12:59	QNW
mg/L	1		Tri Chrome Calc.	7/24/20	7/29/20 11:16	QNW
$\mu g/L$	5		EPA 200.8	7/24/20	7/27/20 14:50	QNW
mg/L	5	DL-03	EPA 200.7	7/24/20	7/28/20 18:09	TBC
$\mu g/L$	5	DL-15	EPA 200.8	7/24/20	7/28/20 12:59	QNW
	μg/L μg/L μg/L μg/L μg/L mg/L μg/L	μg/L 5 μg/L 5 μg/L 5 μg/L 5 μg/L 5 mg/L 1 μg/L 5 mg/L 5 mg/L 5	μg/L 5 DL-15 μg/L 5 μg/L 5 μg/L 5 μg/L 5 mg/L 1 μg/L 5 mg/L 5 mg/L 5 mg/L 5	μg/L 5 DL-15 EPA 200.8 μg/L 5 EPA 200.8 μg/L 5 DL-15 EPA 200.8 μg/L 5 DL-15 EPA 200.8 μg/L 5 EPA 200.8 mg/L 1 Tri Chrome Calc. μg/L 5 EPA 200.8 mg/L 5 EPA 200.8 mg/L 5 EPA 200.7	Units Dilution Flag/Qual Method Prepared μg/L 5 DL-15 EPA 200.8 7/24/20 μg/L 5 EPA 200.8 7/24/20 μg/L 5 DL-15 EPA 200.8 7/24/20 μg/L 5 EPA 200.8 7/24/20 mg/L 1 Tri Chrome Calc. 7/24/20 μg/L 5 EPA 200.8 7/24/20 mg/L 5 DL-03 EPA 200.7 7/24/20	Units Dilution Flag/Qual Method Prepared Analyzed μg/L 5 DL-15 EPA 200.8 7/24/20 7/27/20 14:50 μg/L 5 EPA 200.8 7/24/20 7/27/20 14:50 μg/L 5 DL-15 EPA 200.8 7/24/20 7/27/20 14:50 μg/L 5 EPA 200.8 7/24/20 7/28/20 12:59 mg/L 1 Tri Chrome Calc. 7/24/20 7/29/20 11:16 μg/L 5 EPA 200.8 7/24/20 7/27/20 14:50 mg/L 5 DL-03 EPA 200.7 7/24/20 7/28/20 18:09

EPA 245.1

EPA 200.8

EPA 200.8

EPA 200.8

EPA 200.8

EPA 200.7

7/23/20

7/24/20

7/24/20

7/24/20

7/24/20

7/24/20

7/24/20 11:07

7/27/20 14:50

7/28/20 12:59

7/27/20 14:50

7/27/20 14:50

7/29/20 10:37

CJV

QNW

QNW

QNW

QNW

TBC



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

Sample Description:

Project Location: 60 Penhallow St Date Received: 7/22/2020 Field Sample #: SW-1

Sampled: 7/21/2020 15:00

Sample ID: 20G0943-01
Sample Matrix: Water

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

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Ammonia as N	ND	0.10	mg/L	1		EPA 350.1	7/27/20	7/28/20 20:14	MMH
Chloride	35	1.0	mg/L	1		EPA 300.0	7/26/20	7/26/20 21:09	EC
Chlorine, Residual	ND	0.020	mg/L	1	H-03, R-03, Z-01	SM21-22 4500 CL G	7/22/20	7/22/20 21:30	AWA
Hexavalent Chromium	ND	0.0040	mg/L	1	H-03	SM21-22 3500 Cr B	7/22/20	7/22/20 22:20	KMV
Phenol	ND	0.050	mg/L	1		EPA 420.1	7/23/20	7/27/20 10:59	LL
Total Suspended Solids	20	1.0	mg/L	1		SM21-22 2540D	7/23/20	7/23/20 13:46	LL
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L	1		EPA 1664B	7/23/20	7/23/20 13:02	LL



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

Project Location: 60 Penhallow St Sample Description:

Date Received: 7/22/2020
Field Sample #: SW-1

Sampled: 7/21/2020 15:00

Sample ID: 20G0943-01
Sample Matrix: Water

Drinking Water Organics EPA 504.1

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.019	μg/L	1		EPA 504.1	7/31/20	7/31/20 21:06	JMB
Surrogates		% Recovery	Recovery Limits	s	Flag/Qual				
1.2 Dibramanranana (1)		111	70.120					7/21/20 21:06	



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

Sample Description:

Date Received: 7/22/2020
Field Sample #: SW-1

Project Location: 60 Penhallow St

Sampled: 7/21/2020 15:00

Sample ID: 20G0943-01
Sample Matrix: Water

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

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Cyanide		ND	0.005	mg/L	1		SM21-22 4500 CN E		8/1/20 0:00	PAL



Sample Extraction Data

		Sample Extraction	Data		
Prep Method: SW-846 3510C Analytical Method: 608.3					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262730	915	5.00	07/28/20	
Prep Method: SW-846 5030B Analytical Method: 624.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262515	5	5.00	07/23/20	
Prep Method: SW-846 3510C Analytical Method: 625.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262701	970	1.00	07/27/20	
Prep Method: SW-846 3510C Analytical Method: 625.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262815	970	1.00	07/27/20	
EPA 1664B					
Lab Number [Field ID]	Batch	Initial [mL]		Date	
20G0943-01 [SW-1]	B262500	1000		07/23/20	
Prep Method: EPA 200.7 Analytical Method: EPA 200.7					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1] 20G0943-01 [SW-1]	B262612 B262612	50.0 50.0	50.0	07/24/20 07/24/20	
Prep Method: EPA 200.8 Analytical Method: EPA 200.8					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262614	50.0	50.0	07/24/20	
Prep Method: EPA 245.1 Analytical Method: EPA 245.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262532	6.00	6.00	07/23/20	
Prep Method: EPA 300.0 Analytical Method: EPA 300.0					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262666	10.0	10.0	07/26/20	



Sample Extraction Data

20G0943-01 [SW-1]

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262786	50.0	50.0	07/27/20	
EPA 420.1					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262501	50.0	50.0	07/23/20	
Prep Method: EPA 504 water Analytical	Method: EPA 504.1				
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B263185	36.4	35.0	07/31/20	
SM21-22 2540D					
Lab Number [Field ID]	Batch	Initial [mL]		Date	
20G0943-01 [SW-1]	B262505	500		07/23/20	
SM21-22 3500 Cr B					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262482	50.0	50.0	07/22/20	
SM21-22 4500 CL G					
Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
20G0943-01 [SW-1]	B262475	100	100	07/22/20	
Prep Method: EPA 200.8 Analytical Met	hod: Tri Chrome Calc.				
Lab Number [Field ID]	Batch	Initial [mL]		Date	

50.0

B262614

07/24/20



QUALITY CONTROL

Spike

Source

%REC

RPD

Volatile Organic Compounds by GC/MS - Quality Control

Reporting

Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B262515 - SW-846 5030B										
Blank (B262515-BLK1)				Prepared &	Analyzed: 07	//23/20				
Benzene	ND	1.00	μg/L							
Bromodichloromethane	ND	2.00	$\mu \text{g/L}$							
Bromoform	ND	2.00	$\mu \text{g}/L$							
Bromomethane	ND	2.00	$\mu \text{g/L}$							
Carbon Tetrachloride	ND	2.00	$\mu \text{g/L}$							
Chlorobenzene	ND	2.00	μg/L							
Chlorodibromomethane	ND	2.00	μg/L							
Chloroethane	ND	2.00	μg/L							
Chloroform	ND	2.00	μg/L							
Chloromethane	ND	2.00	μg/L							
,2-Dichlorobenzene	ND	2.00	μg/L							
,3-Dichlorobenzene	ND	2.00	μg/L							
,4-Dichlorobenzene	ND	2.00	μg/L							
,2-Dichloroethane	ND	2.00	μg/L							
,1-Dichloroethane	ND	2.00	μg/L							
1,1-Dichloroethylene	ND	2.00	μg/L							
rans-1,2-Dichloroethylene	ND	2.00	μg/L							
,2-Dichloropropane	ND	2.00	μg/L							
is-1,3-Dichloropropene	ND	2.00	μg/L							
rans-1,3-Dichloropropene	ND	2.00	μg/L							
Ethanol	ND	50.0	μg/L							
Ethylbenzene	ND	2.00	μg/L							
Methyl tert-Butyl Ether (MTBE)	ND	2.00	μg/L							
Methylene Chloride	ND	5.00	μg/L							
,1,2,2-Tetrachloroethane	ND	2.00	μg/L							
Tetrachloroethylene	ND	2.00	μg/L							
Foluene	ND	1.00	μg/L							
1,1,1-Trichloroethane	ND	2.00	μg/L							
,1,2-Trichloroethane	ND	2.00	μg/L							
Frichloroethylene	ND	2.00	μg/L							
Frichlorofluoromethane (Freon 11)	ND	2.00	μg/L							
Vinyl Chloride	ND	2.00	μg/L							
n+p Xylene	ND	2.00	μg/L							
o-Xylene	ND	1.00	μg/L							
Surrogate: 1,2-Dichloroethane-d4	22.1		μg/L	25.0		88.6	70-130			
Surrogate: Toluene-d8	25.1		μg/L	25.0		100	70-130			
Surrogate: 4-Bromofluorobenzene	24.4		μg/L	25.0		97.6	70-130			
LCS (B262515-BS1)		* ^ ^	· -	•	Analyzed: 07					
Benzene	18	1.00	μg/L	20.0		91.5	65-135			
Bromodichloromethane	21	2.00	μg/L	20.0		107	65-135			
Bromoform Promomothons	19	2.00	μg/L	20.0		97.1	70-130			
Bromomethane	17	2.00	μg/L	20.0		87.4	15-185			
Carbon Tetrachloride	19	2.00	μg/L	20.0		93.8	70-130			
Chlorobenzene	18	2.00	μg/L	20.0		91.1	65-135			
Chlorodibromomethane	21	2.00	μg/L	20.0		105	70-135			
Chloroethane	16	2.00	μg/L	20.0		80.9	40-160			
Chloroform	20	2.00	μg/L	20.0		98.1	70-135			
Chloromethane	7.4	2.00	μg/L	20.0		37.2	20-205			
,2-Dichlorobenzene	18	2.00	μg/L	20.0		90.6	65-135			
,3-Dichlorobenzene	18	2.00	μg/L	20.0		90.6	70-130			
1,4-Dichlorobenzene	18	2.00	μg/L	20.0		88.7	65-135			



QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B262515 - SW-846 5030B										
LCS (B262515-BS1)				Prepared &	Analyzed: 07	/23/20				
1,2-Dichloroethane	23	2.00	μg/L	20.0		117	70-130			
1,1-Dichloroethane	19	2.00	$\mu g/L$	20.0		96.6	70-130			
1,1-Dichloroethylene	20	2.00	$\mu \text{g/L}$	20.0		97.6	50-150			
trans-1,2-Dichloroethylene	19	2.00	$\mu g/L$	20.0		96.5	70-130			
,2-Dichloropropane	21	2.00	$\mu g/L$	20.0		104	35-165			
eis-1,3-Dichloropropene	19	2.00	$\mu g/L$	20.0		95.4	25-175			
rans-1,3-Dichloropropene	20	2.00	$\mu g/L$	20.0		100	50-150			
Ethanol	150	50.0	$\mu g/L$	200		75.8	40-160			
Ethylbenzene	18	2.00	$\mu g/L$	20.0		89.3	60-140			
Methyl tert-Butyl Ether (MTBE)	19	2.00	$\mu g/L$	20.0		93.2	70-130			
Methylene Chloride	18	5.00	$\mu g/L$	20.0		87.8	60-140			
,1,2,2-Tetrachloroethane	19	2.00	$\mu g/L$	20.0		94.6	60-140			
Tetrachloroethylene	23	2.00	$\mu g/L$	20.0		116	70-130			
Toluene	19	1.00	$\mu g/L$	20.0		97.2	70-130			
,1,1-Trichloroethane	20	2.00	$\mu g/L$	20.0		99.8	70-130			
,1,2-Trichloroethane	22	2.00	$\mu g/L$	20.0		110	70-130			
Trichloroethylene	22	2.00	$\mu g/L$	20.0		111	65-135			
Frichlorofluoromethane (Freon 11)	17	2.00	$\mu g/L$	20.0		85.6	50-150			
Vinyl Chloride	15	2.00	$\mu g/L$	20.0		74.8	5-195			
n+p Xylene	36	2.00	$\mu g/L$	40.0		90.4	70-130			
p-Xylene	18	1.00	$\mu g/L$	20.0		90.6	70-130			
Surrogate: 1,2-Dichloroethane-d4	22.3		μg/L	25.0		89.1	70-130			
Surrogate: Toluene-d8	25.4		$\mu g/L$	25.0		101	70-130			
Surrogate: 4-Bromofluorobenzene	25.2		$\mu g/L$	25.0		101	70-130			



QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
atch B262815 - SW-846 3510C										
Blank (B262815-BLK1)				Prepared & A	Analyzed: 07	/28/20				
Benzo(a)anthracene (SIM)	ND	0.050	μg/L							
Benzo(a)pyrene (SIM)	ND	0.10	μg/L							
enzo(b)fluoranthene (SIM)	ND	0.050	μg/L							
enzo(k)fluoranthene (SIM)	ND	0.20	μg/L							
hrysene (SIM)	ND	0.20	$\mu g/L$							
bibenz(a,h)anthracene (SIM)	ND	0.10	μg/L							
ndeno(1,2,3-cd)pyrene (SIM)	ND	0.10	$\mu g/L$							
entachlorophenol (SIM)	ND	1.0	$\mu g/L$							
urrogate: 2-Fluorophenol (SIM)	104		μg/L	200		51.8	15-110			
urrogate: Phenol-d6 (SIM)	72.5		$\mu g/L$	200		36.3	15-110			
urrogate: Nitrobenzene-d5	78.5		$\mu g/L$	100		78.5	30-130			
urrogate: 2-Fluorobiphenyl	76.2		$\mu g/L$	100		76.2	30-130			
urrogate: 2,4,6-Tribromophenol (SIM)	224		μg/L	200		112 *	15-110			S-07
urrogate: p-Terphenyl-d14	79.0		μg/L	100		79.0	30-130			
CS (B262815-BS1)				Prepared & A	Analyzed: 07	/28/20				
enzo(a)anthracene (SIM)	51.6	1.0	μg/L	50.0		103	33-143			
enzo(a)pyrene (SIM)	53.1	2.0	μg/L	50.0		106	17-163			
enzo(b)fluoranthene (SIM)	57.1	1.0	μg/L	50.0		114	24-159			
enzo(k)fluoranthene (SIM)	53.8	4.0	μg/L	50.0		108	11-162			
hrysene (SIM)	49.5	4.0	μg/L	50.0		99.1	17-168			
ibenz(a,h)anthracene (SIM)	58.3	2.0	μg/L	50.0		117	10-227			
ideno(1,2,3-cd)pyrene (SIM)	61.2	2.0	μg/L	50.0		122	10-171			
entachlorophenol (SIM)	41.6	20	μg/L	50.0		83.1	14-176			
arrogate: 2-Fluorophenol (SIM)	107		μg/L	200		53.3	15-110			
urrogate: Phenol-d6 (SIM)	78.2		μg/L	200		39.1	15-110			
urrogate: Nitrobenzene-d5	85.3		μg/L	100		85.3	30-130			
urrogate: 2-Fluorobiphenyl	88.9		μg/L	100		88.9	30-130			
urrogate: 2,4,6-Tribromophenol (SIM)	256		μg/L	200		128 *	15-110			S-07
urrogate: p-Terphenyl-d14	78.3		μg/L	100		78.3	30-130			
CS Dup (B262815-BSD1)				Prepared & A	Analyzed: 07	/28/20				
enzo(a)anthracene (SIM)	50.6	1.0	μg/L	50.0		101	33-143	1.92	53	
enzo(a)pyrene (SIM)	52.6	2.0	μg/L	50.0		105	17-163	0.908	72	
enzo(b)fluoranthene (SIM)	56.8	1.0	μg/L	50.0		114	24-159	0.527	71	
enzo(k)fluoranthene (SIM)	53.6	4.0	μg/L	50.0		107	11-162	0.335	63	
hrysene (SIM)	49.1	4.0	μg/L	50.0		98.1	17-168	0.974	87	
ibenz(a,h)anthracene (SIM)	58.2	2.0	μg/L	50.0		116	10-227	0.309	126	
deno(1,2,3-cd)pyrene (SIM)	60.7	2.0	μg/L	50.0		121	10-171	0.722	99	
entachlorophenol (SIM)	41.0	20	μg/L	50.0		82.0	14-176	1.36	86	
arrogate: 2-Fluorophenol (SIM)	108		μg/L	200		54.1	15-110			
urrogate: Phenol-d6 (SIM)	78.7		μg/L	200		39.4	15-110			
urrogate: Nitrobenzene-d5	83.2		μg/L	100		83.2	30-130			
urrogate: 2-Fluorobiphenyl	86.7		μg/L	100		86.7	30-130			
urrogate: 2,4,6-Tribromophenol (SIM)	252		μg/L μg/L	200		126 *	15-110			S-07
urrogate: p-Terphenyl-d14	79.4		μg/L μg/L	100		79.4	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 B262815 - SW-846 3510C										
Matrix Spike (B262815-MS1)	Sourc	e: 20G0943-	01	Prepared &	Analyzed: 07/2	28/20				
Benzo(a)anthracene (SIM)	43.5	0.96	μg/L	48.1	ND	90.6	33-143			
Benzo(a)pyrene (SIM)	45.2	1.9	$\mu \text{g/L}$	48.1	ND	94.0	17-163			
Benzo(b)fluoranthene (SIM)	49.1	0.96	$\mu \text{g/L}$	48.1	ND	102	24-159			
Benzo(k)fluoranthene (SIM)	46.6	3.8	$\mu g/L$	48.1	ND	97.0	11-162			
Chrysene (SIM)	42.5	3.8	$\mu g/L$	48.1	ND	88.3	17-168			
Dibenz(a,h)anthracene (SIM)	50.0	1.9	$\mu g/L$	48.1	ND	104	10-227			
Indeno(1,2,3-cd)pyrene (SIM)	52.1	1.9	$\mu g/L$	48.1	ND	108	10-171			
Pentachlorophenol (SIM)	33.6	19	$\mu g/L$	48.1	ND	69.8	14-176			
Surrogate: 2-Fluorophenol (SIM)	90.5		μg/L	192		47.1	15-110			
Surrogate: Phenol-d6 (SIM)	71.2		μg/L	192		37.0	15-110			
Surrogate: Nitrobenzene-d5	67.7		$\mu g/L$	96.2		70.4	30-130			
Surrogate: 2-Fluorobiphenyl	71.5		μg/L	96.2		74.4	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	211		$\mu g/L$	192		110	15-110			
Surrogate: p-Terphenyl-d14	65.0		$\mu g/L$	96.2		67.6	30-130			
Matrix Spike Dup (B262815-MSD1)	Sourc	e: 20G0943-	01	Prepared &	Analyzed: 07/2	28/20				
Benzo(a)anthracene (SIM)	48.0	1.0	μg/L	50.0	ND	96.0	33-143	9.75	53	
Benzo(a)pyrene (SIM)	49.9	2.0	$\mu \text{g/L}$	50.0	ND	99.9	17-163	10.0	72	
Benzo(b)fluoranthene (SIM)	54.9	1.0	$\mu g/L$	50.0	ND	110	24-159	11.2	71	
Benzo(k)fluoranthene (SIM)	52.2	4.0	$\mu g/L$	50.0	ND	104	11-162	11.3	63	
Chrysene (SIM)	46.9	4.0	$\mu g/L$	50.0	ND	93.8	17-168	9.98	87	
Dibenz(a,h)anthracene (SIM)	53.8	2.0	$\mu g/L$	50.0	ND	108	10-227	7.29	126	
Indeno(1,2,3-cd)pyrene (SIM)	56.9	2.0	$\mu g/L$	50.0	ND	114	10-171	8.89	99	
Pentachlorophenol (SIM)	36.0	20	$\mu \text{g}/L$	50.0	ND	72.0	14-176	7.02	86	
Surrogate: 2-Fluorophenol (SIM)	106		μg/L	200		53.0	15-110			
Surrogate: Phenol-d6 (SIM)	81.2		μg/L	200		40.6	15-110			
Surrogate: Nitrobenzene-d5	78.7		μg/L	100		78.7	30-130			
Surrogate: 2-Fluorobiphenyl	83.9		μg/L	100		83.9	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	234		$\mu g/L$	200		117 *	15-110			S-07
Surrogate: p-Terphenyl-d14	72.1		μg/L	100		72.1	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 B262701 - SW-846 3510C										
Blank (B262701-BLK1)				Prepared: 07	7/27/20 Anal	yzed: 07/28/2	20			
Acenaphthene	ND	5.00	$\mu g/L$							
Acenaphthylene	ND	5.00	μg/L							
Anthracene	ND	5.00	μg/L							
Benzo(g,h,i)perylene	ND	5.00	μg/L							
Di-n-butylphthalate	ND	10.0	μg/L							
Diethylphthalate	ND	10.0	μg/L							
Dimethylphthalate	ND	10.0	μg/L							
Di-n-octylphthalate	ND	10.0	μg/L							
Bis(2-Ethylhexyl)phthalate	ND	10.0	μg/L							
Fluoranthene	ND	5.00	μg/L							
Fluorene	ND	5.00	μg/L							
Naphthalene	ND	5.00	μg/L							
Phenanthrene	ND	5.00	$\mu g/L$							
Pyrene	ND	5.00	$\mu \text{g/L}$							
urrogate: 2-Fluorophenol	108		μg/L	200		53.8	15-110			
Surrogate: Phenol-d6	77.1		$\mu g/L$	200		38.5	15-110			
Surrogate: Nitrobenzene-d5	82.6		$\mu g/L$	100		82.6	30-130			
Surrogate: 2-Fluorobiphenyl	86.4		$\mu g/L$	100		86.4	30-130			
Surrogate: 2,4,6-Tribromophenol	179		$\mu g/L$	200		89.7	15-110			
Surrogate: p-Terphenyl-d14	101		$\mu g/L$	100		101	30-130			
LCS (B262701-BS1)				Prepared: 07	7/27/20 Anal	yzed: 07/28/2	20			
Acenaphthene	38.7	5.00	$\mu g/L$	50.0		77.4	47-145			
Acenaphthylene	36.7	5.00	$\mu g/L$	50.0		73.4	33-145			
Anthracene	42.0	5.00	$\mu g/L$	50.0		84.0	27-133			
Benzo(g,h,i)perylene	35.8	5.00	$\mu g/L$	50.0		71.6	10-219			
Pi-n-butylphthalate	44.4	10.0	$\mu g/L$	50.0		88.8	10-120			
Diethylphthalate	41.0	10.0	$\mu g/L$	50.0		81.9	10-120			
Dimethylphthalate	42.0	10.0	$\mu g/L$	50.0		83.9	10-120			
Di-n-octylphthalate	43.8	10.0	$\mu g/L$	50.0		87.6	4-146			
Bis(2-Ethylhexyl)phthalate	44.6	10.0	$\mu g/L$	50.0		89.2	8-158			
Fluoranthene	43.3	5.00	$\mu g/L$	50.0		86.5	26-137			
Fluorene	41.3	5.00	$\mu g/L$	50.0		82.5	59-121			
Naphthalene	34.3	5.00	$\mu g/L$	50.0		68.6	21-133			
Phenanthrene	42.0	5.00	$\mu g/L$	50.0		84.0	54-120			
Pyrene	40.3	5.00	$\mu \text{g}/L$	50.0		80.6	52-120			
Surrogate: 2-Fluorophenol	110		μg/L	200		55.2	15-110			
Surrogate: Phenol-d6	79.1		μg/L	200		39.6	15-110			
Surrogate: Nitrobenzene-d5	86.5		μg/L	100		86.5	30-130			
Surrogate: 2-Fluorobiphenyl	87.9		μg/L	100		87.9	30-130			
Surrogate: 2,4,6-Tribromophenol	178		μg/L	200		89.1	15-110			
Surrogate: p-Terphenyl-d14	92.6		μg/L	100		92.6	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 B262701 - SW-846 3510C										
LCS Dup (B262701-BSD1)				Prepared: 07	1/27/20 Analy	zed: 07/28/	20			
Acenaphthene	36.4	5.00	μg/L	50.0		72.7	47-145	6.23	48	
Acenaphthylene	34.0	5.00	$\mu g/L$	50.0		68.1	33-145	7.52	74	
Anthracene	40.1	5.00	$\mu g/L$	50.0		80.2	27-133	4.70	66	
Benzo(g,h,i)perylene	37.2	5.00	$\mu g/L$	50.0		74.4	10-219	3.75	97	
Di-n-butylphthalate	43.5	10.0	$\mu g/L$	50.0		87.1	10-120	1.91	47	
Diethylphthalate	38.9	10.0	$\mu g/L$	50.0		77.7	10-120	5.29	100	
Dimethylphthalate	39.3	10.0	$\mu g/L$	50.0		78.5	10-120	6.62	183	
Di-n-octylphthalate	42.0	10.0	$\mu g/L$	50.0		84.0	4-146	4.17	69	
Bis(2-Ethylhexyl)phthalate	42.5	10.0	$\mu \text{g/L}$	50.0		85.1	8-158	4.80	82	
Fluoranthene	42.2	5.00	$\mu \text{g/L}$	50.0		84.3	26-137	2.62	66	
Fluorene	38.9	5.00	$\mu \text{g/L}$	50.0		77.9	59-121	5.79	38	
Naphthalene	30.9	5.00	$\mu g \! / \! L$	50.0		61.8	21-133	10.4	65	
Phenanthrene	40.1	5.00	$\mu g \! / \! L$	50.0		80.2	54-120	4.65	39	
Pyrene	39.1	5.00	μg/L	50.0		78.2	52-120	3.07	49	
Surrogate: 2-Fluorophenol	100		μg/L	200		50.1	15-110			
Surrogate: Phenol-d6	73.5		μg/L	200		36.8	15-110			
Surrogate: Nitrobenzene-d5	75.9		μg/L	100		75.9	30-130			
Surrogate: 2-Fluorobiphenyl	78.7		μg/L	100		78.7	30-130			
Surrogate: 2,4,6-Tribromophenol	167		$\mu g/L$	200		83.5	15-110			
Surrogate: p-Terphenyl-d14	87.1		μg/L	100		87.1	30-130			
Matrix Spike (B262701-MS1)	Sou	rce: 20G0943-	01	Prepared: 07	7/27/20 Analy	zed: 07/28/	20			
Acenaphthene	33.5	4.81	$\mu g/L$	48.1	ND	69.7	47-145			
Acenaphthylene	31.4	4.81	$\mu g/L$	48.1	ND	65.4	33-145			
Anthracene	36.4	4.81	$\mu g/L$	48.1	ND	75.7	27-133			
Benzo(g,h,i)perylene	31.7	4.81	$\mu g/L$	48.1	ND	66.0	10-219			
Di-n-butylphthalate	38.2	9.62	μg/L	48.1	ND	79.5	10-120			
Diethylphthalate	35.2	9.62	$\mu g/L$	48.1	ND	73.3	10-120			
Dimethylphthalate	36.7	9.62	$\mu g/L$	48.1	ND	76.3	10-120			
Di-n-octylphthalate	35.6	9.62	$\mu g/L$	48.1	ND	74.0	4-146			
Bis(2-Ethylhexyl)phthalate	35.9	9.62	$\mu g/L$	48.1	ND	74.8	8-158			
Fluoranthene	39.3	4.81	$\mu g/L$	48.1	ND	81.8	26-137			
Fluorene	35.6	4.81	$\mu g/L$	48.1	ND	74.0	59-121			
Naphthalene	28.8	4.81	$\mu g/L$	48.1	ND	59.8	21-133			
Phenanthrene	36.6	4.81	$\mu g/L$	48.1	ND	76.2	54-120			
Pyrene	34.7	4.81	$\mu g/L$	48.1	ND	72.1	52-120			
Surrogate: 2-Fluorophenol	92.7		μg/L	192		48.2	15-110			
Surrogate: Phenol-d6	68.6		$\mu g/L$	192		35.7	15-110			
	66.9		$\mu g/L$	96.2		69.6	30-130			
Surrogate: Nitrobenzene-d5			/*	06.2		75.0	20 120			
•	72.9		μg/L	96.2		75.8	30-130			
Surrogate: Nitrobenzene-d5 Surrogate: 2-Fluorobiphenyl Surrogate: 2,4,6-Tribromophenol	72.9 158		μg/L μg/L	192		75.8 81.9	15-110			

7.06

7.05

7.43 6.44 38

65 39

49



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

QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte Batch B262701 - SW-846 3510C	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Matrix Spike Dup (B262701-MSD1)	Sour	ce: 20G0943-	01	Prepared: 07	7/27/20 Analy:	zed: 07/28/	20			
Acenaphthene	36.5	5.00	μg/L	50.0	ND	72.9	47-145	8.46	48	
Acenaphthylene	34.0	5.00	$\mu g/L$	50.0	ND	68.1	33-145	7.94	74	
Anthracene	39.3	5.00	$\mu g/L$	50.0	ND	78.6	27-133	7.60	66	
Benzo(g,h,i)perylene	33.0	5.00	$\mu g/L$	50.0	ND	66.0	10-219	3.95	97	
Di-n-butylphthalate	41.1	10.0	μg/L	50.0	ND	82.1	10-120	7.11	47	
Diethylphthalate	37.6	10.0	$\mu g/L$	50.0	ND	75.2	10-120	6.51	100	
Dimethylphthalate	38.6	10.0	$\mu g/L$	50.0	ND	77.2	10-120	5.15	183	
Di-n-octylphthalate	38.0	10.0	$\mu g/L$	50.0	ND	76.1	4-146	6.69	69	
Bis(2-Ethylhexyl)phthalate	38.8	10.0	$\mu g/L$	50.0	ND	77.7	8-158	7.75	82	
Fluoranthene	42.1	5.00	$\mu g/L$	50.0	ND	84.3	26-137	6.93	66	

Fluoranthene	42.1	3.00	μg/L	50.0	ND	84.3	26-13/
Fluorene	38.2	5.00	$\mu g/L$	50.0	ND	76.4	59-121
Naphthalene	30.8	5.00	$\mu g/L$	50.0	ND	61.7	21-133
Phenanthrene	39.4	5.00	$\mu g/L$	50.0	ND	78.9	54-120
Pyrene	37.0	5.00	μg/L	50.0	ND	74.0	52-120
Surrogate: 2-Fluorophenol	100		μg/L	200		50.1	15-110
Surrogate: Phenol-d6	75.3		$\mu g/L$	200		37.7	15-110
Surrogate: Nitrobenzene-d5	72.1		$\mu g/L$	100		72.1	30-130
Surrogate: 2-Fluorobiphenyl	78.7		$\mu g/L$	100		78.7	30-130
Surrogate: 2,4,6-Tribromophenol	170		$\mu g/L$	200		85.0	15-110
Surrogate: p-Terphenyl-d14	83.1		$\mu g/L$	100		83.1	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
Batch B262730 - SW-846 3510C										
Blank (B262730-BLK1)				Prepared: 07	7/28/20 Anal	yzed: 07/30/2	20			
Aroclor-1016	ND	0.100	μg/L							
Aroclor-1016 [2C]	ND	0.100	$\mu \text{g/L}$							
Aroclor-1221	ND	0.100	$\mu g/L$							
Aroclor-1221 [2C]	ND	0.100	$\mu g/L$							
Aroclor-1232	ND	0.100	$\mu g/L$							
Aroclor-1232 [2C]	ND	0.100	$\mu g/L$							
Aroclor-1242	ND	0.100	$\mu g/L$							
Aroclor-1242 [2C]	ND	0.100	$\mu g/L$							
Aroclor-1248	ND	0.100	$\mu g/L$							
Aroclor-1248 [2C]	ND	0.100	$\mu g/L$							
Aroclor-1254	ND	0.100	$\mu g/L$							
Aroclor-1254 [2C]	ND	0.100	$\mu g/L$							
Aroclor-1260	ND	0.100	$\mu g/L$							
Aroclor-1260 [2C]	ND	0.100	$\mu g/L$							
Surrogate: Decachlorobiphenyl	0.906		μg/L	1.00		90.6	30-150			
Surrogate: Decachlorobiphenyl [2C]	0.969		$\mu g/L$	1.00		96.9	30-150			
Surrogate: Tetrachloro-m-xylene	0.794		μg/L	1.00		79.4	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	0.850		μg/L	1.00		85.0	30-150			
LCS (B262730-BS1)				Prepared: 07	7/28/20 Anal	yzed: 07/30/2	20			
Aroclor-1016	0.415	0.200	μg/L	0.500		83.0	50-140			
Aroclor-1016 [2C]	0.454	0.200	$\mu g/L$	0.500		90.9	50-140			
Aroclor-1260	0.404	0.200	$\mu g/L$	0.500		80.9	8-140			
Aroclor-1260 [2C]	0.436	0.200	$\mu g/L$	0.500		87.2	8-140			
Surrogate: Decachlorobiphenyl	1.75		μg/L	2.00		87.3	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.86		$\mu g/L$	2.00		93.2	30-150			
Surrogate: Tetrachloro-m-xylene	1.57		μg/L	2.00		78.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.70		$\mu g/L$	2.00		84.8	30-150			
LCS Dup (B262730-BSD1)				Prepared: 07	7/28/20 Anal	yzed: 07/30/2	20			
Aroclor-1016	0.431	0.200	μg/L	0.500		86.3	50-140	3.86		
Aroclor-1016 [2C]	0.464	0.200	μg/L	0.500		92.8	50-140	2.15		
Aroclor-1260	0.416	0.200	μg/L	0.500		83.1	8-140	2.72		
Aroclor-1260 [2C]	0.450	0.200	μg/L	0.500		90.1	8-140	3.22		
Surrogate: Decachlorobiphenyl	1.82		μg/L	2.00		90.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	1.94		μg/L	2.00		96.9	30-150			
Surrogate: Tetrachloro-m-xylene	1.61		μg/L	2.00		80.6	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	1.73		μg/L	2.00		86.7	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
Batch B262532 - EPA 245.1										
Blank (B262532-BLK1)				Prepared: 07	/23/20 Analy	vzed: 07/24/	20			
Mercury	ND	0.00010	mg/L	Trepared: 07	,23,20 111111	,200. 07/2 1/				
LCS (B262532-BS1)				Prepared: 07	/23/20 Anal	uzed: 07/24/	20			
Mercury	0.00400	0.00010	mg/L	0.00400	723720 7 KHai	99.9	85-115			
. (CC D. (DA/AFIA DCD4)	*******			D 1.07	/22/20 1 1	1.07/24/	20			
LCS Dup (B262532-BSD1) Mercury	0.00417	0.00010	mg/L		//23/20 Analy	104		4.20	20	
reicury	0.00417	0.00010	IIIg/L	0.00400		104	85-115	4.30	20	
atch B262612 - EPA 200.7										
slank (B262612-BLK1)				Prepared: 07	/24/20 Analy	yzed: 07/27/	20			
ron	ND	0.050	mg/L							
Iardness	ND	1.4	mg/L							
CS (B262612-BS1)				Prepared: 07	/24/20 Analy	yzed: 07/27/	20			
ron	4.47	0.050	mg/L	4.00		112	85-115			
ardness	29	1.4	mg/L	26.4		111	85-115			
CS Dup (B262612-BSD1)				Prepared: 07	/24/20 Analy	yzed: 07/27/	20			
on	4.56	0.050	mg/L	4.00		114	85-115	1.98	20	
fardness	30	1.4	mg/L	26.4		113	85-115	1.86	20	
puplicate (B262612-DUP1)	Sou	rce: 20G0943-	01	Prepared: 07	/24/20 Analy	yzed: 07/28/	20			
on	ND	0.25	mg/L		ND)		NC	20	DL-03
ardness	6600	14	mg/L		5600	1		16.0		
Iatrix Spike (B262612-MS1)	Sou	rce: 20G0943-	01	Prepared: 07	/24/20 Analy	yzed: 07/28/	20			
ron	4.30	0.25	mg/L	4.00	ND	107	70-130			
lardness	7000	14	mg/L	26.4	5600	5360 *	70-130			MS-19
atch B262614 - EPA 200.8										
Blank (B262614-BLK1)				Prepared: 07	/24/20 Analy	yzed: 07/27/	20			
antimony	ND	1.0	μg/L							
arsenic	ND	0.80	$\mu g/L$							
Cadmium	ND	0.20	$\mu \text{g}/L$							
hromium	ND	1.0	$\mu \text{g/L}$							
opper	ND	1.0	$\mu g/L$							
1	ND	0.50	$\mu \text{g}/L$							
ead			/r							
	ND	5.0	μg/L							
lickel	ND ND	5.0	μg/L μg/L							
.ead Nickel Selenium Silver										



QUALITY CONTROL

Metals Analyses (Total) - Quality Control

		Donartina		Cmilco	C		0/DEC		DDD	
Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Satch B262614 - EPA 200.8										
.CS (B262614-BS1)				Prepared: 07	/24/20 Analyze	d: 07/27/2	0			
ntimony	496	10	μg/L	500		99.1	85-115			
Arsenic	512	8.0	$\mu g/L$	500		102	85-115			
Cadmium	519	2.0	$\mu g/L$	500		104	85-115			
Chromium	518	10	$\mu g/L$	500		104	85-115			
Copper	1050	10	$\mu g/L$	1000		105	85-115			
ead	521	5.0	$\mu g/L$	500		104	85-115			
lickel	559	50	$\mu g/L$	500		112	85-115			
elenium	510	50	$\mu g/L$	500		102	85-115			
ilver	486	2.0	$\mu g/L$	500		97.2	85-115			
ine	1070	100	$\mu \text{g/L}$	1000		107	85-115			
CS Dup (B262614-BSD1)				Prepared: 07	/24/20 Analyze	d: 07/27/2	0			
ntimony	515	10	μg/L	500		103	85-115	3.83	20	
Arsenic	534	8.0	μg/L	500		107	85-115	4.13	20	
Cadmium	537	2.0	μg/L	500		107	85-115	3.40	20	
Chromium	551	10	μg/L	500		110	85-115	6.07	20	
Copper	1070	10	μg/L	1000		107	85-115	1.94	20	
ead	543	5.0	μg/L	500		109	85-115	4.14	20	
lickel	572	50	μg/L	500		114	85-115	2.31	20	
elenium	524	50	μg/L	500		105	85-115	2.61	20	
ilver	496	2.0	μg/L	500		99.2	85-115	2.08	20	
inc	1130	100	μg/L	1000		113	85-115	5.29	20	
Ouplicate (B262614-DUP1)	Source	e: 20G0943 -0)1	Prepared: 07	/24/20 Analyze	d: 07/27/2	0			
antimony	ND	5.0	μg/L		ND			NC	20	DL-15
arsenic	18.9	4.0	μg/L		18.6			1.56	20	22.10
Cadmium	ND	1.0	μg/L		ND			NC	20	DL-15
Chromium	ND	5.0	μg/L		6.16			NC	20	DL 13
Copper	ND 127	5.0	μg/L		128			0.790	20	
ead	ND	2.5	μg/L		ND			NC	20	
Vickel	ND ND	25	μg/L μg/L		ND ND			NC	20	DL-15
Selenium	ND 171	25	μg/L μg/L		188			9.03	20	DL-13
Silver	ND	1.0	μg/L μg/L		ND			NC	20	DL-15
Zinc	ND ND	50	μg/L		ND ND			NC	20	DL-13 DL-15
	Same	o 20C0043 0)1	Prepared: 07	/24/20 Analyze	d· 07/27/2	0			
Matrix Spike (B262614-MS1)		e: 20G0943-0			/24/20 Analyze					
Matrix Spike (B262614-MS1)	568	10	μg/L	500	ND	114	70-130			
Matrix Spike (B262614-MS1) Antimony Arsenic	568 637	10 8.0	μg/L μg/L	500 500	ND 18.6	114 124	70-130 70-130			
Matrix Spike (B262614-MS1) Antimony Arsenic Cadmium	568 637 537	10 8.0 2.0	μg/L μg/L μg/L	500 500 500	ND 18.6 ND	114 124 107	70-130 70-130 70-130			
Matrix Spike (B262614-MS1) Antimony Arsenic Cadmium Chromium	568 637 537 527	10 8.0 2.0 10	μg/L μg/L μg/L μg/L	500 500 500 500	ND 18.6 ND ND	114 124 107 105	70-130 70-130 70-130 70-130			
Antrix Spike (B262614-MS1) Antimony Arsenic Cadmium Chromium Copper	568 637 537 527 1230	10 8.0 2.0 10 10	μg/L μg/L μg/L μg/L μg/L	500 500 500 500 1000	ND 18.6 ND ND 128	114 124 107 105 110	70-130 70-130 70-130 70-130 70-130			
Matrix Spike (B262614-MS1) Antimony Arsenic Cadmium Chromium Copper Lead	568 637 537 527 1230 543	10 8.0 2.0 10 10 5.0	μg/L μg/L μg/L μg/L μg/L μg/L	500 500 500 500 1000 500	ND 18.6 ND ND 128 1.80	114 124 107 105 110 108	70-130 70-130 70-130 70-130 70-130 70-130			
Matrix Spike (B262614-MS1) Antimony Arsenic Cadmium Chromium Copper	568 637 537 527 1230	10 8.0 2.0 10 10	μg/L μg/L μg/L μg/L μg/L	500 500 500 500 1000	ND 18.6 ND ND 128 1.80	114 124 107 105 110	70-130 70-130 70-130 70-130 70-130			



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 B262475 - SM21-22 4500 CL G		<u> </u>								
Blank (B262475-BLK1)				Prepared &	Analyzed: 07	/22/20				
Chlorine, Residual	ND	0.020	mg/L							
LCS (B262475-BS1)				Prepared &	Analyzed: 07	/22/20				
Chlorine, Residual	0.61	0.020	mg/L	0.614		100	85.3-130			
LCS Dup (B262475-BSD1)				Prepared &	Analyzed: 07	/22/20				
Chlorine, Residual	0.63	0.020	mg/L	0.614		103	85.3-130	2.96	13.6	
Duplicate (B262475-DUP1)	Sou	rce: 20G0943-	01	Prepared &	Analyzed: 07	/22/20				
Chlorine, Residual	0.027	0.020	mg/L		ND)		NC	29.4	H-03, R-03
Matrix Spike (B262475-MS1)	Sou	rce: 20G0943-	01	Prepared &	Analyzed: 07	/22/20				
Chlorine, Residual	0.89	0.020	mg/L	1.00	0.019	87.2	10-169			H-03
Batch B262482 - SM21-22 3500 Cr B										
Blank (B262482-BLK1)				Prepared &	Analyzed: 07	/22/20				
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B262482-BS1)				Prepared &	Analyzed: 07	/22/20				
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		102	90-115			
LCS Dup (B262482-BSD1)				Prepared &	Analyzed: 07	/22/20				
Hexavalent Chromium	0.10	0.0040	mg/L	0.100		103	90-115	1.15	11	
Batch B262500 - EPA 1664B										
Blank (B262500-BLK1)				Prepared &	Analyzed: 07	/23/20				
Silica Gel Treated HEM (SGT-HEM)	ND	1.4	mg/L							
LCS (B262500-BS1)				Prepared &	Analyzed: 07	/23/20				
Silica Gel Treated HEM (SGT-HEM)	7.1		mg/L	10.0		71.0	64-132			
Batch B262501 - EPA 420.1										
Blank (B262501-BLK1)				Prepared: 07	7/23/20 Analy	yzed: 07/27/	/20			
Phenol	ND	0.050	mg/L							
LCS (B262501-BS1)				Prepared: 07	7/23/20 Analy	yzed: 07/27/	/20			
Phenol	0.48	0.050	mg/L	0.500		95.0	75.6-130			



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
	ixesuit	Limit	Omto	Level	Result	/UKLC	Liiiits	МЪ	Liiiit	110103
Batch B262501 - EPA 420.1										
LCS Dup (B262501-BSD1)				Prepared: 07	2/23/20 Analy	zed: 07/27/	20			
Phenol	0.50	0.050	mg/L	0.500		101	75.6-130	6.06	10.3	
Matrix Spike (B262501-MS1)	Sour	ce: 20G0943-	01	Prepared: 07	7/23/20 Analy	zed: 07/27/	20			
Phenol	0.50	0.050	mg/L	0.500	ND	99.5	34.1-149			
Batch B262505 - SM21-22 2540D										
Blank (B262505-BLK1)				Prepared &	Analyzed: 07/	23/20				
Total Suspended Solids	ND	2.5	mg/L							
LCS (B262505-BS1)				Prepared &	Analyzed: 07/	23/20				
Total Suspended Solids	198	10	mg/L	200		99.0	57.4-123			
Batch B262666 - EPA 300.0										
Blank (B262666-BLK1)				Prepared &	Analyzed: 07/	26/20				
Chloride	ND	1.0	mg/L							
LCS (B262666-BS1)				Prepared &	Analyzed: 07/	26/20				
Chloride	10		mg/L	10.0		103	90-110			
LCS Dup (B262666-BSD1)				Prepared &	Analyzed: 07/	26/20				
Chloride	10		mg/L	10.0		103	90-110	0.266	20	
Batch B262786 - EPA 350.1										
Batch B262786 - EPA 350.1 Blank (B262786-BLK1)				Prepared: 07	//27/20 Analy	vzed: 07/28/	20			
-	ND	0.10	mg/L	Prepared: 07	7/27/20 Analy	zed: 07/28/	20			
Blank (B262786-BLK1)	ND	0.10	mg/L	<u>. </u>	7/27/20 Analy 7/27/20 Analy					
Blank (B262786-BLK1) Ammonia as N	ND 2.0	0.10	mg/L	<u>. </u>						
Blank (B262786-BLK1) Ammonia as N LCS (B262786-BS1)				Prepared: 07 2.00		rzed: 07/28/:	90-110			



QUALITY CONTROL

Drinking Water Organics EPA 504.1 - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B263185 - EPA 504 water										
Blank (B263185-BLK1)				Prepared &	Analyzed: 07	//31/20				
1,2-Dibromoethane (EDB)	ND	0.021	μg/L							
Surrogate: 1,3-Dibromopropane	1.03		μg/L	1.04		98.9	70-130			
LCS (B263185-BS1)				Prepared &	Analyzed: 07	//31/20				
1,2-Dibromoethane (EDB)	0.207	0.021	μg/L	0.257		80.4	70-130			
Surrogate: 1,3-Dibromopropane	1.03		μg/L	1.03		99.7	70-130			
LCS Dup (B263185-BSD1)				Prepared &	Analyzed: 07	//31/20				
1,2-Dibromoethane (EDB)	0.206	0.020	μg/L	0.255		80.8	70-130	0.177		
Surrogate: 1,3-Dibromopropane	1.10		μg/L	1.02		108	70-130			
Matrix Spike (B263185-MS1)	Sou	rce: 20G0943-	-01	Prepared &	Analyzed: 07	//31/20				
1,2-Dibromoethane (EDB)	0.219	0.019	μg/L	0.242	NE	90.4	65-135			
Surrogate: 1.3-Dibromopropane	1.06		ug/L	0.967		109	70-130			



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS	

608.3

Lab Sample ID:	B262730-BS1		Date(s) Analyzed:	07/30/2020	07/30/	2020
Instrument ID (1):	ECD10	-	Instrument ID (2):	ECD10		
GC Column (1):	ID:	(mm)	GC Column (2):		ID:	(mm

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
7.10.112	002	111	FROM	TO	OONOLIVITUUTION	70111 13
Aroclor-1016	1	0.000	0.000	0.000	0.415	
	2	0.000	0.000	0.000	0.454	7.8
Aroclor-1260	1	0.000	0.000	0.000	0.404	
	2	0.000	0.000	0.000	0.436	8.6



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS Dup	

608.3

Lab Sample ID:	B262730-BSD1		Date(s) Analyzed:	07/30/2020	07/30/202	20
Instrument ID (1):	ECD10		Instrument ID (2):	ECD10		
GC Column (1):	ID:	(mm)	GC Column (2):		ID:	(mm

ANALYTE	COL	RT	RT WI	NDOW	CONCENTRATION	%RPD	
7	002		FROM	TO	00110211111111111111		
Aroclor-1016	1	0.000	0.000 0.000		0.431		
	2	0.000	0.000	0.000	0.464	7.6	
Aroclor-1260	1	0.000	0.000	0.000	0.416		
	2	0.000	0.000	0.000	0.450	6.9	



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS		

EPA 504.1

Lab Sample ID: B263		3185-BS1			ate(s) Analy	zed: 07/31/2020	07/3	07/31/2020	
Ins	strument ID (1):			Instrument ID (2):					
GC Column (1):		ID:	(m	(mm) GC Column (2):			ID:	(mm	
	ANALYTE	TE COL		RT WI	NDOW	CONCENTRATION	%RPD		
				FROM	TO				
Ī	1,2-Dibromoethane (EDB)	1	3 705	0.000	0.000	0.207			



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

LCS Dup	

EPA 504.1

Lab Sample ID: B263		185-BSD	1	Da	Date(s) Analyzed: 07/31/20			07/31/2020	
Ins	strument ID (1):			Instrument ID (2):					
GC Column (1):		ID:	(mm) G		GC Column (2):			ID:	(mm)
	ANALYTE	E COL					CONCENTRATION		
L	1.2-Dibromoethane (EDB)	1	3 706	0.000	0.000		0 206		



IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

Matrix Spike

EPA 504.1

Lab Sample ID: B26		33185-MS1		Da	ate(s) Analy	zed: 07/31/2020	07/3	07/31/2020	
Ins	strument ID (1):			In	strument ID	(2):			
GC Column (1):		ID:	(mm) GC (C Column (2):		ID:	(mm)	
	ANALYTE	COL	RT	RT WI	NDOW	CONCENTRATION	%RPD		
Į				FROM	TO				
	1,2-Dibromoethane (EDB)	1	3 711	0.000	0.000	0.219			



FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
DL-03	Elevated reporting limit due to matrix interference.
DL-15	Sample required a dilution due to low internal standard recovery of the lesser diluted digestion, reporting limit is elevated.
H-03	Sample received after recommended holding time was exceeded.
MS-19	Sample to spike ratio is greater than or equal to 4:1. Spiked amount is not representative of the native amount in the sample. Appropriate or meaningful recoveries cannot be calculated.
R-03	Duplicate RPD outside of control limits. Reduced precision is expected for values near the reporting limit.
S-07	One associated surrogate standard recovery is outside of control limits but the other(s) is/are within limits. All recoveries are $> 10\%$.
Z-01	SM 4500 CL G test had a calibration point outside of acceptable back-calculated recovery. Re-analysis yielded similar non-conformance.



CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
608.3 in Water	
Aroclor-1016	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1016 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1221 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1232 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1242 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1248 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1254 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260	CT,MA,NH,NY,RI,NC,ME,VA
Aroclor-1260 [2C]	CT,MA,NH,NY,RI,NC,ME,VA
624.1 in Water	
Acetone	CT,NY,MA,NH
tert-Amyl Methyl Ether (TAME)	MA
Benzene	CT,NY,MA,NH,RI,NC,ME,VA
Bromodichloromethane	CT,NY,MA,NH,RI,NC,ME,VA
Bromoform	CT,NY,MA,NH,RI,NC,ME,VA
Bromomethane	CT,NY,MA,NH,RI,NC,ME,VA
tert-Butyl Alcohol (TBA)	NY,MA
Carbon Tetrachloride	CT,NY,MA,NH,RI,NC,ME,VA
Chlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
Chlorodibromomethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Chloroform	CT,NY,MA,NH,RI,NC,ME,VA
Chloromethane	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,3-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dichlorobenzene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
trans-1,2-Dichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
1,2-Dichloropropane	CT,NY,MA,NH,RI,NC,ME,VA
cis-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
1,4-Dioxane	MA CTANYAMA NILIDING MENA
trans-1,3-Dichloropropene	CT,NY,MA,NH,RI,NC,ME,VA
Ethylhorgon	NY,MA,NH
Ethylbenzene Methyl tert-Butyl Ether (MTBE)	CT,NY,MA,NH,RI,NC,ME,VA
Methylene Chloride	NY,MA,NH,NC CT NV MA NH PL NC ME VA
Naphthalene	CT,NY,MA,NH,RI,NC,ME,VA NY,MA,NC
1,1,2,2-Tetrachloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Tetrachloroethylene	CT,NY,MA,NH,RI,NC,ME,VA CT,NY,MA,NH,RI,NC,ME,VA
Tottacinorocityrene	Capitalyinalyinalyinging var



CERTIFICATIONS

Certified Analyses included in this Report

Selenium

Silver

Zinc

Certified Analyses included in this Report	
Analyte	Certifications
624.1 in Water	
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,1,1-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
1,1,2-Trichloroethane	CT,NY,MA,NH,RI,NC,ME,VA
Trichloroethylene	CT,NY,MA,NH,RI,NC,ME,VA
Trichlorofluoromethane (Freon 11)	CT,NY,MA,NH,RI,NC,ME,VA
Vinyl Chloride	CT,NY,MA,NH,RI,NC,ME,VA
m+p Xylene	CT,NY,MA,NH,RI,NC
o-Xylene	CT,NY,MA,NH,RI,NC
625.1 in Water	
Acenaphthene	CT,MA,NH,NY,NC,RI,ME,VA
Acenaphthylene	CT,MA,NH,NY,NC,RI,ME,VA
Anthracene	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-butylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,3-Dichlorobenzene	MA,NC
1,4-Dichlorobenzene	MA,NC
1,2-Dichlorobenzene	MA,NC
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
Bis(2-Ethylhexyl)phthalate	CT,MA,NH,NY,NC,RI,ME,VA
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA
Phenol	CT,MA,NH,NY,NC,RI,ME,VA
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA
2-Fluorophenol	NC
2-Fluorophenol	NC,VA
Phenol-d6	VA
Nitrobenzene-d5	VA
EPA 200.7 in Water	
Iron	CT,MA,NH,NY,RI,NC,ME,VA
Hardness	CT,MA,NH,NY,RI,VA
EPA 200.8 in Water	
Antimony	CT,MA,NH,NY,RI,NC,ME,VA
Arsenic	CT,MA,NH,NY,RI,NC,ME,VA
Cadmium	CT,MA,NH,NY,RI,NC,ME,VA
Chromium	CT,MA,NH,NY,RI,NC,ME,VA
Copper	CT,MA,NH,NY,RI,NC,ME,VA
Lead	CT,MA,NH,NY,RI,NC,ME,VA
Nickel	CT,MA,NH,NY,RI,NC,ME,VA

 $CT,\!MA,\!NH,\!NY,\!RI,\!NC,\!ME,\!VA$

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

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



CERTIFICATIONS

Certified Analyses included in this Report

Certifications Analyte EPA 245.1 in Water Mercury CT,MA,NH,RI,NY,NC,ME,VA EPA 300.0 in Water Chloride NC,NY,MA,VA,ME,NH,CT,RI EPA 350.1 in Water Ammonia as N NC,NY,MA,NH,RI,ME,VA EPA 420.1 in Water Phenol CT,MA,NH,NY,RI,NC,ME,VA SM21-22 2540D in Water Total Suspended Solids CT,MA,NH,NY,RI,NC,ME,VA

Hexavalent Chromium

SM21-22 4500 CL G in Water

SM21-22 3500 Cr B in Water

Chlorine, Residual CT,MA,RI,ME

SM21-22 4500 CN E in Water

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

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

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2021
CT	Connecticut Department of Publile Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2021
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2021
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2021
ME	State of Maine	2011028	06/9/2021
VA	Commonwealth of Virginia	460217	12/14/2020
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2020
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2021

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

held accountable.

20 coarts

Phone: 413-525-2332

COD-RSK

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 2_06262019 39 Spruce Street East Longmeadow, MA 01028

Glassware in freezer? Y / N nissing samples from prepacked Prepackaged Cooler? Y / N *Contest is not responsible for Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Conest values your partnership on each project and will try to assist with missing information, but will not b Glassware in the fridge? Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The ² Preservation Codes: f = Iced H = HCL † Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water \$ = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Total Number Of: A = Air S = Soil SL = Studge SOL = Soild O = Other (please O = Other (please define) PCB ONLY Non Soxhlet IINII Preservation Code Soxhlet coolers BACTERIA M = Methanol
N = Nitric Acid ENCORE GLASS PLASTIC_ VIALS Thiosulfate define) possible sample concentration within the Conc H - High; M - Medium; L - Low; C - Clean; U -2005 Please use the following codes to indicate 12401 NELAC and AHA-LAP, LLC Accredited Chromatogram AIHA-LAP,LLC Code column above: ANALYSIS REQUESTED 7 WIS/SED X Other S Day TA-X Chert comments: \$6. As, cd, Cr, Cu, Fe, Hs, Pb, Ni, Se. As, Zh.
| Phenol by 420.1, EDB by SCH.1 5 Day T X 2 W \$ 240-0 **ZST** MA MuP Require WRTA ACP Certification Form Require #A State BW Required 0/8008HWS CT RCP Requir RCP Certification Form Rev BACTERIA ENCORE EXCEL Field Filtered Field Filtered Lab to Filter Lab to Filter brotherilesalbeton.com VIALS GLASS PLASTIC School MWRA MBTA X 0 0 0 0 Matrix Conc Code 3 PPF Municipality Due Date: Brownfield 10-Day # QISMa 3-Day 3 4-Day COMP/GRAB NPDEC RGP 1 CLP Like Data Pkg Req PFAS 10-Day (std) Ending Date/Time Government Email To: 721 200 5100 Fax To #: Format: Federal Other: 7-Day 1-Day -Day City Project Entity Beginning Date/Time asterdery NH Sampled By: Certificat / Cody Wholes Email: info@contestiabs.com 7 rates (6:03 Client Sample ID / Description Fax: 413-525-6405 Date/Time: Jate/Time: Date/Time: 2 unless: Bate Su-1 MCN8 600 Correct さらるか Con-Test Quote Name/Number: Relinquished by: (signature) Received by: (signature) Received by: (signature) Con-Test Work Order# Project Manager: 4ddress: **4 16** Project Location; invoice Recipient: Project Number: company, Name Page 40 of 41 I Have Not Confirmed Sample Container
Numbers With Lab Staff Before Relinquishing
Over Samples_____

WYB

Client



Doc# 277 Rev 5 2017

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

Receive	ed By	<i>191</i>		Date	7122	20	Time	2035	
How were th	e samples	In Cooler	~	No Cooler		On Ice		No Ice	
receiv	ed?	Direct from Sampling				Ambient		Melted Ice	
Were samp	loc within		By Gun#	1		Actual Tem	p-4.7		•
Temperatur		T	By Blank #			Actual Tem	n -		
•	Custody Se	nal Intant?	nla			s Tampered		2/4	-
	COC Relin			•	•	ree With Sa		-1114	-
		•	<u> </u>	-	S Chair Agi	iee with oa	inpics:	720	-
		eaking/loose caps	on any sam		nolos rocci	wod within h	olding time?		
Is COC in inl	-	Client		Analysis	iibies recei		er Name	<u> </u>	•
		Project		. ID's			Dates/Times		-
pertinent Inf		-	<u> </u>	. 103		Conection	Dates/Times	'- 	-
•		d out and legible?		•	M/ha wa	s notified?			
Are there Lat		•		•		s notified?			-
Are there Ru				•			1.110		*
Are there Sho		•			wno was	s notified?	<u>untile</u>		-
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APPENDIX C

Supplemental Information





United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



July 20, 2020

In Reply Refer To:

Consultation Code: 05E1NE00-2020-SLI-3332

Event Code: 05E1NE00-2020-E-10153

Project Name: New Building in Downtown Portsmouth

Subject: List of threatened and endangered species that may occur in your proposed project

location, and/or may be affected by your proposed project

To Whom It May Concern:

The enclosed species list identifies threatened, endangered, proposed and candidate species, as well as proposed and final designated critical habitat, that may occur within the boundary of your proposed project and/or may be affected by your proposed project. The species list fulfills the requirements of the U.S. Fish and Wildlife Service (Service) under section 7(c) of the Endangered Species Act (Act) of 1973, as amended (16 U.S.C. 1531 *et seq.*).

New information based on updated surveys, changes in the abundance and distribution of species, changed habitat conditions, or other factors could change this list. Please feel free to contact us if you need more current information or assistance regarding the potential impacts to federally proposed, listed, and candidate species and federally designated and proposed critical habitat. Please note that under 50 CFR 402.12(e) of the regulations implementing section 7 of the Act, the accuracy of this species list should be verified after 90 days. This verification can be completed formally or informally as desired. The Service recommends that verification be completed by visiting the ECOS-IPaC website at regular intervals during project planning and implementation for updates to species lists and information. An updated list may be requested through the ECOS-IPaC system by completing the same process used to receive the enclosed list.

The purpose of the Act is to provide a means whereby threatened and endangered species and the ecosystems upon which they depend may be conserved. Under sections 7(a)(1) and 7(a)(2) of the Act and its implementing regulations (50 CFR 402 *et seq.*), Federal agencies are required to utilize their authorities to carry out programs for the conservation of threatened and endangered species and to determine whether projects may affect threatened and endangered species and/or designated critical habitat.

A Biological Assessment is required for construction projects (or other undertakings having similar physical impacts) that are major Federal actions significantly affecting the quality of the human environment as defined in the National Environmental Policy Act (42 U.S.C. 4332(2) (c)). For projects other than major construction activities, the Service suggests that a biological evaluation similar to a Biological Assessment be prepared to determine whether the project may affect listed or proposed species and/or designated or proposed critical habitat. Recommended contents of a Biological Assessment are described at 50 CFR 402.12.

If a Federal agency determines, based on the Biological Assessment or biological evaluation, that listed species and/or designated critical habitat may be affected by the proposed project, the agency is required to consult with the Service pursuant to 50 CFR 402. In addition, the Service recommends that candidate species, proposed species and proposed critical habitat be addressed within the consultation. More information on the regulations and procedures for section 7 consultation, including the role of permit or license applicants, can be found in the "Endangered Species Consultation Handbook" at:

http://www.fws.gov/endangered/esa-library/pdf/TOC-GLOS.PDF

Please be aware that bald and golden eagles are protected under the Bald and Golden Eagle Protection Act (16 U.S.C. 668 *et seq.*), and projects affecting these species may require development of an eagle conservation plan (http://www.fws.gov/windenergy/eagle_guidance.html). Additionally, wind energy projects should follow the wind energy guidelines (http://www.fws.gov/windenergy/) for minimizing impacts to migratory birds and bats.

Guidance for minimizing impacts to migratory birds for projects including communications towers (e.g., cellular, digital television, radio, and emergency broadcast) can be found at: http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/towers.htm; http://www.towerkill.com; and http://www.fws.gov/migratorybirds/CurrentBirdIssues/Hazards/towers/comtow.html.

We appreciate your concern for threatened and endangered species. The Service encourages Federal agencies to include conservation of threatened and endangered species into their project planning to further the purposes of the Act. Please include the Consultation Tracking Number in the header of this letter with any request for consultation or correspondence about your project that you submit to our office.

Attachment(s):

Official Species List

Official Species List

This list is provided pursuant to Section 7 of the Endangered Species Act, and fulfills the requirement for Federal agencies to "request of the Secretary of the Interior information whether any species which is listed or proposed to be listed may be present in the area of a proposed action".

This species list is provided by:

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 (603) 223-2541

Action Description

You provided to IPaC the following name and description for the subject Action.

1. Name

New Building in Downtown Portsmouth

2. Description

The following description was provided for the project 'New Building in Downtown Portsmouth':

The subject property is half an acre in size and consists entirely of a parking lot with associated drives, walkways, and perimeter landscaping with some shade trees. Construction activities involve the demolition of the parking lot and erection of a four-story building with two levels of subsurface parking facilities, which will cover most of the parcel. Dewatering is necessary for construction of the building foundation, and due to existing groundwater contamination, a RGP with a NPDES NOI is required. Construction will begin in the fall of this year.

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/43.07707769710956N70.75656473288569W



Determination Key Result

This non-Federal Action may affect the northern long-eared bat; however, any take of this species that may occur incidental to this Action is not prohibited under the final 4(d) rule at 50 CFR §17.40(o).

Determination Key Description: Northern Long-eared Bat 4(d) Rule

This key was last updated in IPaC on **May 15, 2017**. Keys are subject to periodic revision.

This key is intended for actions that may affect the threatened northern long-eared bat.

The purpose of the key for non-Federal actions is to assist determinations as to whether proposed actions are excepted from take prohibitions under the northern long-eared bat 4(d) rule.

If a non-Federal action may cause prohibited take of northern long-eared bats or other ESA-listed animal species, we recommend that you coordinate with the Service.

Endangered Species Act Species

There is a total of 1 threatened, endangered, or candidate species on this species list.

Species on this list should be considered in an effects analysis for your project and could include species that exist in another geographic area. For example, certain fish may appear on the species list because a project could affect downstream species.

IPaC does not display listed species or critical habitats under the sole jurisdiction of NOAA Fisheries¹, as USFWS does not have the authority to speak on behalf of NOAA and the Department of Commerce.

See the "Critical habitats" section below for those critical habitats that lie wholly or partially within your project area under this office's jurisdiction. Please contact the designated FWS office if you have questions.

1. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

Mammals

NAME

Northern Long-eared Bat *Myotis septentrionalis*

Threatened

No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045

Critical habitats

THERE ARE NO CRITICAL HABITATS WITHIN YOUR PROJECT AREA UNDER THIS OFFICE'S JURISDICTION.



United States Department of the Interior

FISH AND WILDLIFE SERVICE

New England Ecological Services Field Office 70 Commercial Street, Suite 300 Concord, NH 03301-5094 Phone: (603) 223-2541 Fax: (603) 223-0104

http://www.fws.gov/newengland



IPaC Record Locator: 958-22629026 July 20, 2020

Subject: Consistency letter for the 'New Building in Downtown Portsmouth' project indicating that any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR

§17.40(o).

Dear Russel Rucker:

The U.S. Fish and Wildlife Service (Service) received on July 20, 2020 your effects determination for the 'New Building in Downtown Portsmouth' (the Action) using the northern long-eared bat (*Myotis septentrionalis*) key within the Information for Planning and Consultation (IPaC) system. You indicated that no Federal agencies are involved in funding or authorizing this Action. This IPaC key assists users in determining whether a non-Federal action may cause "take" of the northern long-eared bat that is prohibited under the Endangered Species Act of 1973 (ESA) (87 Stat.884, as amended; 16 U.S.C. 1531 et seq.).

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o). Unless the Service advises you within 30 days of the date of this letter that your IPaC-assisted determination was incorrect, this letter verifies that the Action is not likely to result in unauthorized take of the northern long-eared bat.

Please report to our office any changes to the information about the Action that you entered into IPaC, the results of any bat surveys conducted in the Action area, and any dead, injured, or sick northern long-eared bats that are found during Action implementation.

If your Action proceeds as described and no additional information about the Action's effects on species protected under the ESA becomes available, no further coordination with the Service is required with respect to the northern long-eared bat.

07/20/2020 IPaC Record Locator: 958-22629026 2 [1] Take means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct [ESA Section 3(19)].

Determination Key Result

Based upon your IPaC submission, any take of the northern long-eared bat that may occur as a result of the Action is not prohibited under the ESA Section 4(d) rule adopted for this species at 50 CFR §17.40(o).

Qualification Interview

- Is the action authorized, funded, or being carried out by a Federal agency?

 No
- 2. Will your activity purposefully **Take** northern long-eared bats? *No*
- 3. [Semantic] Is the project action area located wholly outside the White-nose Syndrome Zone?

Automatically answered

No

4. Have you contacted the appropriate agency to determine if your project is near a known hibernaculum or maternity roost tree?

Location information for northern long-eared bat hibernacula is generally kept in state Natural Heritage Inventory databases – the availability of this data varies state-by-state. Many states provide online access to their data, either directly by providing maps or by providing the opportunity to make a data request. In some cases, to protect those resources, access to the information may be limited. A web page with links to state Natural Heritage Inventory databases and other sources of information on the locations of northern long-eared bat roost trees and hibernacula is available at www.fws.gov/midwest/endangered/mammals/nleb/nhisites.html.

Yes

5. Will the action affect a cave or mine where northern long-eared bats are known to hibernate (i.e., hibernaculum) or could it alter the entrance or the environment (physical or other alteration) of a hibernaculum?

No

6. Will the action involve Tree Removal?

Yes

- 7. Will the action only remove hazardous trees for the protection of human life or property? *No*
- 8. Will the action remove trees within 0.25 miles of a known northern long-eared bat hibernaculum at any time of year?

No

9. Will the action remove a known occupied northern long-eared bat maternity roost tree or any trees within 150 feet of a known occupied maternity roost tree from June 1 through July 31?

No

Project Questionnaire

If the project includes forest conversion, report the appropriate acreages below. Otherwise, type '0' in questions 1-3.

Estimated total acres of forest conversion:
 If known, estimated acres of forest conversion from April 1 to October 31
 If known, estimated acres of forest conversion from June 1 to July 31

If the project includes timber harvest, report the appropriate acreages below. Otherwise, type '0' in questions 4-6.

- 4. Estimated total acres of timber harvest *0*
- 5. If known, estimated acres of timber harvest from April 1 to October 31 $\it 0$
- 6. If known, estimated acres of timber harvest from June 1 to July 31 *0*

If the project includes prescribed fire, report the appropriate acreages below. Otherwise, type '0' in questions 7-9.

- 7. Estimated total acres of prescribed fire *0*
- 8. If known, estimated acres of prescribed fire from April 1 to October 31 $\it o$
- 9. If known, estimated acres of prescribed fire from June 1 to July 31 \boldsymbol{o}

If the project includes new wind turbines, report the megawatts of wind capacity below. Otherwise, type '0' in question 10.

10. What is the estimated wind capacity (in megawatts) of the new turbine(s)? θ



NEW HAMPSHIRE NATURAL HERITAGE BUREAU NHB DATACHECK RESULTS LETTER

To: Russel Rucker, Wilcox & Barton, Inc.

2 Capital Plaza Suite 305

Concord, NH 03301

From: NH Natural Heritage Bureau

Date: 7/27/2020 (valid for one year from this date)

Re: Review by NH Natural Heritage Bureau of request submitted 7/17/2020

NHB File ID: NHB20-2119 Applicant: Mark A. McNabb

Location: Portsmouth

Tax Maps: Map 107, Lot 27

Project

Description: The subject property consists entirely of a parking lot with associated

drives, walkways, and perimeter landscaping. Construction activities involve the demolition of the parking lot and erecting a 4-story building with 2 levels of subsurface parking facilities. Dewatering is necessary for construction of building excavation and due to existing groundwater contamination a RGP with NPDES NOI is required.

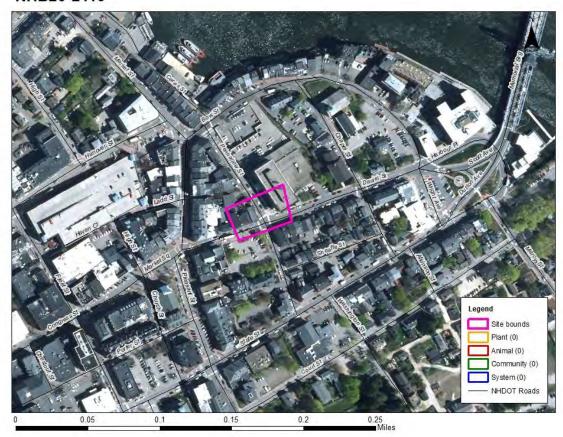
The NH Natural Heritage database has been checked by staff of the NH Natural Heritage Bureau and/or the NH Nongame and Endangered Species Program for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government.

It was determined that, although there was a NHB record (e.g., rare wildlife, plant, and/or natural community) present in the vicinity, we do not expect that it will be impacted by the proposed project. This determination was made based on the project information submitted via the NHB Datacheck Tool on 7/17/2020, and cannot be used for any other project.

NEW HAMPSHIRE NATURAL HERITAGE BUREAU NHB DATACHECK RESULTS LETTER

MAP OF PROJECT BOUNDARIES FOR: NHB20-2119

NHB20-2119



Please mail the completed form and required material to:

New Hampshire Division of Historical Resources State Historic Preservation Office Attention: Review & Compliance 19 Pillsbury Street, Concord, NH 03301-3570



Request for Project Review by the New Hampshire Division of Historical Resources

_	This is a new submittal	200
] This is additional information relating to DHR Review & Compliance (R&	τC) #:

GENERAL PROJECT INFORMATION

Project Title New Building in Downtown Portsmouth

Project Location 60 Penhallow Street

City/Town Portsmouth

Tax Map 107

Lot # 27

NH State Plane - Feet Geographic Coordinates:

Easting 1227413

Northing 211650√

(See RPR Instructions and R&C FAQs for guidance.)

Lead Federal Agency and Contact (if applicable) US EPA

(Agency providing funds, licenses, or permits)

Permit Type and Permit or Job Reference # RGP

State Agency and Contact (if applicable)

Permit Type and Permit or Job Reference #

APPLICANT INFORMATION

Applicant Name McNabb Properties, Ltd.

Mailing Address 30 Penhallow St., Suite 300

Phone Number 6034270725

City Portsmouth

State NH

Zip 03801

Email house@mcnabbgroup.com

CONTACT PERSON TO RECEIVE RESPONSE

Name/Company Russel Rucker

Mailing Address PO Box 1630

Phone Number 6035730232

City Derry

State NH

Zip 03038

Email rrucker@wilcoxandbarton.com

This form is updated periodically. Please download the current form at www.nh.gov/nhdhr/review. Please refer to the Request for Project Review Instructions for direction on completing this form. Submit one copy of this project review form for each project for which review is requested. Include a self-addressed stamped envelope to expedite review response. Project submissions will not be accepted via facsimile or e-mail. This form is required. Review request form must be complete for review to begin. Incomplete forms will be sent back to the applicant without comment. Please be aware that this form may only initiate consultation. For some projects, additional information will be needed to complete the Section 106 review. All items and supporting documentation submitted with a review request, including photographs and publications, will be retained by the DHR as part of its review records. Items to be kept confidential should be clearly identified. For questions regarding the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at mairied-naries in the project submissions will be retained by the DHR review process and the DHR's role in it, please visit our website at: www.nh.gov/nhdhr/review or contact the R&C Specialist at mairied-naries in the project submissions will not be accepted via facsimile or e-mail. This form is required. Review request of the project submissions will be sent back to the applicant without comment. Please the project submissions will be sent back to the applicant without comment. Please the project submissions will be sent back to the applicant without comment. Please submissions will be sent back to the applicant without comment. Please submissions will be sent back to the applicant without comment. Please submissions will be sent back to the

PROJECTS CANNOT BE PROCESSED WITHOUT THIS INFORMATION

<u>Project Boundaries and Description</u>							
Attach the Project Mapping using EMMIT or relevant portion of a 7.5' USGS Map. (See RPR Instructions and R&C FAQs for guidance.) Attach a detailed narrative description of the proposed project. Attach a site plan. The site plan should include the project boundaries and areas of proposed excavation. Attach photos of the project area (overview of project location and area adjacent to project location, and specific areas of proposed impacts and disturbances.) (Informative photo captions are requested.) A DHR records search must be conducted to identify properties within or adjacent to the project area. Provide records search results via EMMIT or in Table 1. (Blank table forms are available on the DHR website.) EMMIT or in-house records search conducted on 7/17/2020.							
$\underline{Architecture}$							
Are there any buildings, structures (bridges, walls, culverts, etc.) objects, districts or landscapes within project area? Yes No If no, skip to Archaeology section. If yes, submit all of the following information:	the						
Approximate age(s):							
Photographs of <i>each</i> resource or streetscape located within the project area, with captions, along we mapped photo key. (Digital photographs are accepted. All photographs must be clear, crisp and focused If the project involves rehabilitation, demolition, additions, or alterations to existing building structures, provide additional photographs showing detailed project work locations. (i.e. Detail photographs if windows if window replacement is proposed.)	ed.) s or						
<u>Archaeology</u>							
Does the proposed undertaking involve ground-disturbing activity? X Yes No If yes, submit all of the following information:							
Description of current and previous land use and disturbances. Available information concerning known or suspected archaeological resources within the project (such as cellar holes, wells, foundations, dams, etc.)	area						
Please note that for many projects an architectural and/or archaeological survey or other additional information may be needed to complete the Section 106 process.							
DHR Comment/Finding Recommendation This Space for Division of Historical Resources Use Only							
☐ Insufficient information to initiate review. ☐ Additional information is needed in order to complete rev	iew.						
☐ No Potential to cause Effects ☐ No Historic Properties Affected ☐ No Adverse Effect ☐ Adverse Effect							
Comments: This finding is contingent on the Hoplicant							
Postmonth Hoc. Please forward the correspondence							
to the DHA for our files when received.							
If plans change or resources are discovered in the course of this project, you must contact the Division of Historical Resources as required by federal law and regulation.							
Authorized Signature: The Milly STO Date: 8/11 Date							



CITY OF PORTSMOUTH

Planning Department 1 Junkins Avenue Portsmouth, New Hampshire 03801 (603) 610-7216

HISTORIC DISTRICT COMMISSION

November 18, 2019

Dagny Taggart, LLC 30 Penhallow, Suite 300 E Portsmouth, NH 03801

RE: 0 (53) Daniel Street (LU-19-228)

Dear Owner:

The Historic District Commission, at its regularly scheduled meeting of **November 13, 2019**, considered your application for the construction of a new free-standing (4-story, $50,000 \pm s.f.$) commercial structure as per plans on file in the Planning Department. Said property is shown on Assessor Map 107, Lot 27 and lies within the Character District 4 (CD4) and Historic District Commission. As a result of said consideration, the Commission voted to **grant** The Certificate of Approval with the following stipulations:

- 1. The size of the diamond tiles on the horizontal bands shall increase from 1' to 2'.
- 2. The railings from behind the 3rd floor cornices shall be aligned to the back of the cornice.
- 3. The (2) courtyard entry doors shall be recessed with a freestanding column between them.
- 4. The front main entrance glass door shall fill the entire opening between the timbers that surround them.
- 5. The vertical timbers on the rounded corners shall be further extended, above the roof line.
- 6. The Pella widows with concealed screens shall be used.
- 7. The cheek wall siding shall be horizontal.
- 8. Items (#1-6) shall be submitted for Administrative Approval.

Findings of Fact

A. Purpose and Intent

The proposed application meets the following objective(s) of the Historic District (as provided in Section 10.631.20 of the Zoning Ordinance):

- Promote the education, pleasure, & welfare of the District to the city residents and visitors.

B. Review Criteria

The proposed application also meets the following review criteria of the Historic District (as provided in Section 10.635.70 of the Zoning Ordinance):

- Compatibility of innovative technologies with surrounding properties.

The Commission's decision may be appealed up to thirty (30) days after the vote. Any action taken by the applicant pursuant to the Commission's decision during this appeal period shall be at the applicant's risk. Please contact the Planning Department for more details about the appeals process.

Approvals may also be required from other City Committees or Boards. Once all required approvals have been received, applicant is responsible for applying for and securing a building permit from the Inspection Department prior to starting any project work.

This approval shall expire unless a building permit is issued within a period of one (1) year from the date granted by the Historic District Commission unless an extension is granted by the Commission in accordance with Section 10.636.70 of the Zoning Ordinance.

Please note that any changes or modifications to this application require review and approval from the Commission prior to implementation and additional fees may apply.

The minutes and audio recording of this meeting are available by contacting the Planning Department.

Very truly yours,

Nicholas J. Cracknell, AICP, Principal Planner

for Vincent Lombardi, Chairman of the Historic District Commission

cc: Robert Marsilia, Chief Building Inspector Rosann Maurice-Lentz, City Assessor

Tracy Kozak, AIA, JSA, Inc. Mark A. McNabb, Applicant