89 Crawford Street
Leominster, Massachusetts 01453
Tel: 774.450.7177
Fax: 888.835.0617
www.lrt-llc.net

February 5, 2020

U.S. Environmental Protection Agency
Office of Ecosystem Protection
EPA/OEP RGP Applications Coordinator
5 Post Office Square, Suite 100 (OEP06-4)
Boston, Massachusetts 02109-3912

Reference: **Notice of Intent (NOI) - Remediation General Permit (RGP)**
Melrose YMCA
497 Main Street
Melrose, Massachusetts

Dear Sir/Madam:

On behalf of R.C. Griffin, Inc. (R.C. Griffin), Lockwood Remediation Technologies, LLC (LRT) has prepared this Notice of Intent (NOI) requesting a determination of coverage under the United States Environmental Protection Agency's (EPA's) Remediation General Permit (RGP), pursuant EPA's National Pollutant Discharge Elimination System (NPDES) program. This NOI was prepared in accordance with the general requirements of the NPDES and related guidance documentation provided by EPA. The completed NOI Form is provided in **Appendix A**.

Site Information

This NOI has been prepared for the management of water that will be generated during dewatering activities associated with the construction of a new elevator to be installed within the exiting foundation of the Melrose YMCA building located at 497 Main Street in Melrose, Massachusetts (the Site). The construction is anticipated to be completed within twelve months. The Site is not listed as a disposal site with the Massachusetts Department of Environmental Protection (MassDEP). A Site Locus is provided as **Figure 1**. A Site Plan satisfying the requirements of the RGP Appendix IV Part I.B and I.D. is provided as **Figure 2**.

Work Summary

The project includes the construction of a new elevator within the existing YMCA building. To complete the project, dewatering will be required to keep the excavation dry and to create a stable subgrade. Dewatering will be conducted via a wellpoint system which will be installed around the perimeter of the proposed excavation area. Water will be extracted through the wellpoints with a vacuum pump. The water generated during dewatering (Source water) will be pumped to a water treatment system prior to discharge to a storm water catch basin with an outfall in Ell Pond Brook, a tributary of the Malden River. To characterize groundwater from the proposed excavation area, LRT collected representative

groundwater samples from an on-site monitoring well on January 27, 2020. In addition, LRT collected a representative sample from the receiving water (Malden River) on January 27, 2020. The samples were analyzed for various parameters in accordance with the NPDES RGP Activity Category III-G.

Discharge and Receiving Surface Water Information

A summary of the analytical results are provided in **Tables 1 and 2** included within **Appendix A.** Copies of the laboratory analytical reports are provided in **Appendix B**. Concentrations of Copper and Cadmium were detected in groundwater at concentrations above the respective NPDES RGP Effluent Limitations. To meet these standards, Source water will undergo treatment that includes settling and bag filtration. Details of the water treatment system are provided below.

Water Treatment System

A water treatment system schematic is provided as **Figure 3**. Cutsheets of the system components and product information are included in **Appendix C**.

Source water will be pumped to a treatment system with a design flow of up to 50 gallons per minute (gpm); the average effluent flow of the system is estimated to be 35 gpm, and the maximum flow will not exceed 50 gpm. Source water will enter one 8,000-gallon weir tank at the head of the system. From the weir tank, the water will be pumped through a dual-bag filter skid (with two single bag filters) for filtration. Discharge from the bag filters will pass through a flow/totalizer meter prior to discharge into a catch basin with an outfall in Ell Pond Brook. Refer to **Figure 2** for the approximate location of the discharge catch basin (Discharge Location 001) on the 497 Main Street property. Effluent sampling will correspond with this discharge location.

Consultation with Federal Services

LRT reviewed online electronic data viewers and databases from the Massachusetts Geographical Information System (MassGIS), the Massachusetts Division of Fisheries and Wildlife (MassWildlife; Natural Heritage and Endangered Species Program), and the U.S. National Parks Service Natural Historic Places (NPS). Based on this review, the Site and the point where the proposed discharge reaches the receiving surface water body are not located within an Area of Critical Environmental Concern (ACEC). The Site and the proposed discharge point are not located within Habitats of Rare Wetland Wildlife, Habitats of Rare Species, Estimated Habitats of Rare Wildlife. The site is listed as a historic place in Massachusetts however the portion of the building being worked is an addition, constructed in 1985. Documentation and determinations are included in **Appendix D**.

Coverage under NPDES RGP

It is our opinion that the proposed discharge is eligible for coverage under the NPDES RGP. On behalf of R.C. Griffin, Inc., we are requesting coverage under the NPDES RGP for the discharge of treated wastewater to Ell Pond Brook in support of construction dewatering activities that are to take place at the Melrose YMCA building.

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, R.C. Griffin, Inc. 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.

Please feel free to contact us at 774-450-7177 if you have any questions or if you require additional information.

Sincerely,
Lockwood Remediation Technologies, LLC

Jacob Jennings

Jacob Jennings
Staff Scientist

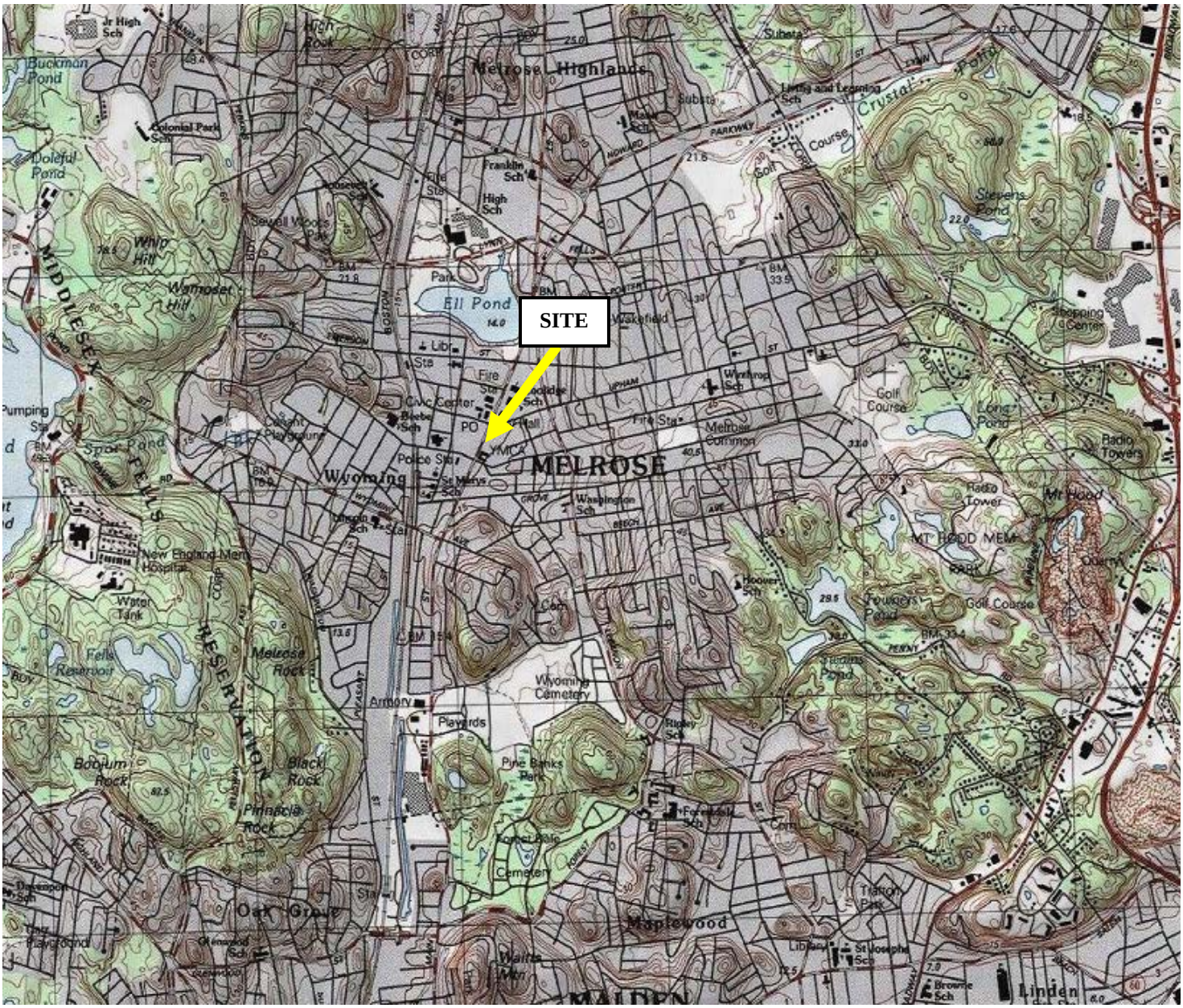
Kim Gravelle

Kim Gravelle, P.G.
Senior Project Manager

Encl: Figure 1 - Locus Plan
Figure 2 - Site Plan
Figure 3 - Water Treatment System Schematic
Appendix A - NOI Form
Appendix B - Laboratory Data
Appendix C - Water Treatment System
Appendix D - Supplemental Information

cc: Robert Potito – R.C. Griffin, Inc. (via email)
Kathleen Walsh – YMCA Metro North (via email)
Catherine Vakalopoulos – MassDEP (via email)

Figures



Source: ARCGIS Mapper

Notes

1. Figure is not to scale.

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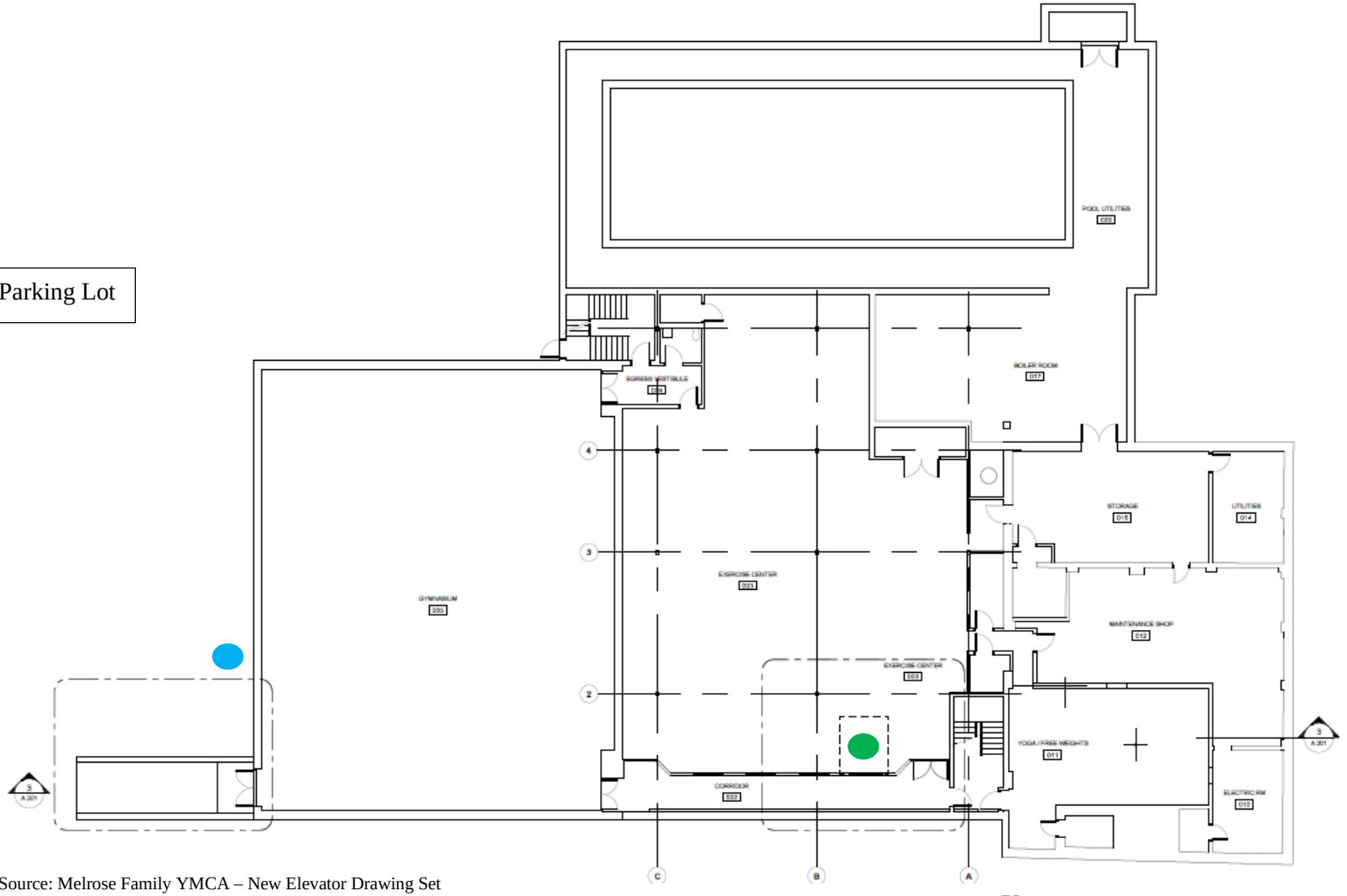
Figure 1 – Locus Plan
Melrose YMCA
497 Main Street
Melrose, MA

Parking Lot



Source: Melrose Family YMCA – New Elevator Drawing Set

Key

- Discharge location
- Water Treatment System location
- Dewatering System

Notes

1. Figure is not to scale

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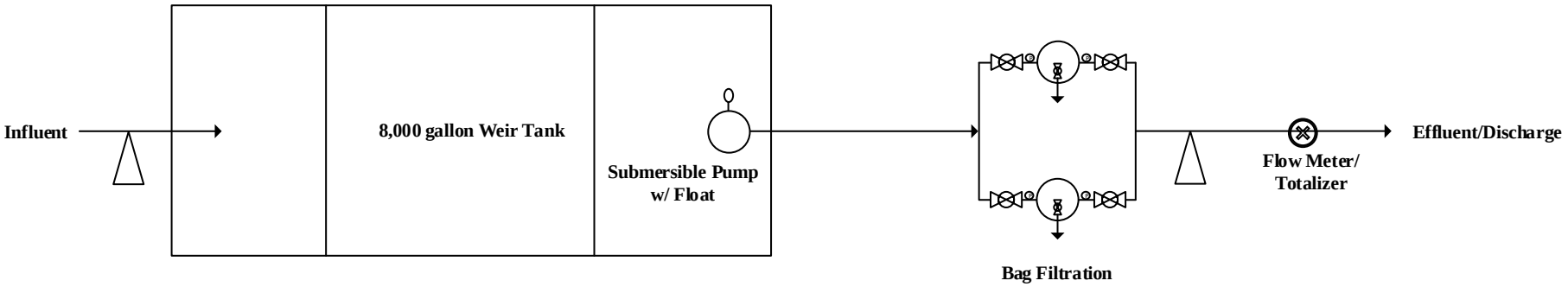
Figure 2 – Site plan
Melrose YMCA
497 Main Street
Melrose, MA



Notes:

1.) Figure is not to scale
2.) System rated for 50 gpm.

Key:
Piping/Hose
Sample Port
Ball Valve
Pressure Gauge

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
Office: 774-450-7177

DESIGNED BY: LRT DRAWN BY: JHJ
CHECKED BY: DATE:

Water Treatment System Detail

Melrose YMCA
497 Main Street
Melrose, MA

PROJECT No. 2-1990

FIGURE No. 3

Appendix A
NOI Form

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

A. General site information:

<table>
<tr><td rowspan="2">1. Name of site:
Melrose YMCA</td><td colspan="3">Site address: 497 Main Street
Street:</td></tr>
<tr><td>City: Melrose</td><td>State: MA</td><td>Zip: 02176</td></tr>
<tr><td rowspan="4">2. Site owner
YMCA of Metro North

Owner is (check one): ☐ Federal ☐ State/Tribal ■ Private
☐ Other; if so, specify:</td><td colspan="3">Contact Person: Kathleen M. Walsh</td></tr>
<tr><td colspan="2">Telephone: 978-548-4443</td><td>Email: kwalsh@metronorthymca.org</td></tr>
<tr><td colspan="3">Mailing address: 2 Centennial Drive, Suite 4A
Street:</td></tr>
<tr><td>City: Peabody</td><td>State: MA</td><td>Zip: 01960</td></tr>
<tr><td rowspan="4">3. Site operator, if different than owner
R.C. Griffin, Inc.</td><td colspan="3">Contact Person: Rob Potito</td></tr>
<tr><td colspan="2">Telephone: 617-212-6833</td><td>Email: rpotito@rcgriffin.com</td></tr>
<tr><td colspan="3">Mailing address:
Street: 49 Central Street</td></tr>
<tr><td>City: Peabody</td><td>State: MA</td><td>Zip: 01960</td></tr>
<tr><td>4. NPDES permit number assigned by EPA:

NPDES permit is (check all that apply: ■ RGP ☐ DGP ☐ CGP
☐ MSGP ☐ Individual NPDES permit ☐ Other; if so, specify:</td><td colspan="3">5. Other regulatory program(s) that apply to the site (check all that apply):
☐ MA Chapter 21e; list RTN(s):
☐ NH Groundwater Management Permit or Groundwater Release Detection Permit:
☐ CERCLA
☐ UIC Program
☐ POTW Pretreatment
☐ CWA Section 404</td></tr>
</table>

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Ell Pond Brook, Spot Pond Brook, Malden River	MA71-05	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 accordance 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. (Pathogens CN157.1) Chlordane in Fish Tissue DDT in Fish Tissue, DO, E. coli, Fecal Coliform, Flocculant Masses, Odor, Oil and Grease

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.	0.245
5. Indicate the requested dilution factor for the calculation of water quality-based effluent limitations (WQBELs) determined in accordance with the instructions in Appendix V for sites in Massachusetts and Appendix VI for sites in New Hampshire.	3.19

6. Has the operator received confirmation from the appropriate State for the 7Q10and dilution factor indicated? (check one): ■ Yes ☐ No
If yes, indicate date confirmation received: 2/4/2020

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 instruction in Appendix VIII? (check one): ■ Yes ☐ No

C. Source water information:

1. Source water(s) is (check any that apply):

■ Contaminated groundwater Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ Contaminated surface water Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP in accordance with the instruction in Appendix VIII? (check one): ☐ Yes ☐ No	☐ The receiving water ☐ A surface water other than the receiving water; if so, indicate waterbody:	☐ Potable water; if so, indicate municipality or origin: ☐ Other; if so, specify:

2. Source water contaminants: Inorganics	
a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in the RGP? (check one): ☐ Yes ■ No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	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 with the instructions in Appendix VIII? (check one): ☐ Yes ☐ No
3. Has the source water been previously chlorinated or otherwise contains residual chlorine? (check one): ■ Yes ☐ No	

D. Discharge information

1.The discharge(s) is a(n) (check any that apply): ☐ Existing discharge ■ New discharge ☐ New source	
Outfall(s): 001	Outfall location(s): (Latitude, Longitude) 42.454579, -71064445
Discharges enter the receiving water(s) via (check any that apply): ☐ Direct discharge to the receiving water ■ Indirect discharge, if so, specify: Discharge to a stormwater catch basin on 497 Main Street property with with an outfall in Ell Pond Brook which is a tributary of the Malden River. ☐ A private storm sewer system ■ A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system: Has notification been provided to the owner of this system? (check one): ■ Yes ☐ No Has the operator has received permission from the owner to use such system for discharges? (check one): ■ Yes ☐ No, if so, explain, with an estimated timeframe for obtaining permission: 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): 2/20/20 - 5/20/20 Indicate if the discharge is expected to occur over a duration of: ■ less than 12 months ☐ 12 months or more ☐ is an emergency discharge	
Has the operator attached a site plan in accordance with the instructions in D, above? (check one): ■ Yes ☐ No	

<table>
<tr><td>2. Activity Category: (check all that apply)</td><td colspan="2">3. Contamination Type Category: (check all that apply)</td></tr>
<tr><td rowspan="4">☐ I – Petroleum-Related Site Remediation
☐ II – Non-Petroleum-Related Site Remediation
■ III – Contaminated Site Dewatering
☐ IV – Dewatering of Pipelines and Tanks
☐ V – Aquifer Pump Testing
☐ VI – Well Development/Rehabilitation
☐ VII – Collection Structure Dewatering/Remediation
☐ VIII – Dredge-Related Dewatering</td><td colspan="2">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</td></tr>
<tr><td colspan="2">b. If Activity Category III, IV, V, VI, VII or VIII: (check either G or H)</td></tr>
<tr><td>■ G. Sites with Known Contamination</td><td>☐ H. Sites with Unknown Contamination</td></tr>
<tr><td>c. If Category III-G, IV-G, V-G, VI-G, VII-G or VIII-G: (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</td><td>d. If Category III-H, IV-H, V-H, VI-H, VII-H or VIII-H Contamination Type Categories A through F apply</td></tr>
</table>

4. Influent and Effluent Characteristics

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		✔	1	4500NH3	75	95	95	Report mg/L	---
Chloride		✔	1	300.0	50000	1900000	1900000	Report µg/l	---
Total Residual Chlorine	✔		1	4500CL	0.020	<0.020	<0.020	0.2 mg/L	35 ug/L
Total Suspended Solids		✔	1	2540D	1000	3000	3000	30 mg/L	---
Antimony	✔		1	200.8	1.0	<1.0	<1.0	206 µg/L	
Arsenic	✔		1	200.8	0.80	<0.80	<0.80	104 µg/L	
Cadmium		✔	1	200.8	0.20	1.4	1.4	10.2 µg/L	1.18
Chromium III		✔	1	200.8	1.0	1.3	1.3	323 µg/L	
Chromium VI	✔		1	3500CR	4	<4	<4	323 µg/L	
Copper		✔	1	200.8	1.0	19	19	242 µg/L	
Iron		✔	1	200.7	50	240	240	5,000 µg/L	
Lead	✔		1	200.8	0.50	<0.50	<0.50	160 µg/L	
Mercury	✔		1	245.1	0.1	<0.1	<0.1	0.739 µg/L	
Nickel		✔	1	200.8	5.0	9.4	9.4	1,450 µg/L	
Selenium		✔	1	200.8	1.6	3.3	3.3	235.8 µg/L	
Silver	✔		1	200.8	0.20	<0.20	<0.20	35.1 µg/L	
Zinc		✔	1	200.8	10	12	12	420 µg/L	
Cyanide	✔		1	4500CN	5	<5	<5	178 mg/L	
B. Non-Halogenated VOCs									
Total BTEX	✔					<100	<100	100 µg/L	---
Benzene	✔		1	624.1	0.180	<0.180	<0.180	5.0 µg/L	---
1,4 Dioxane	✔		1	624.1	22.5	<22.5	<22.5	200 µg/L	---
Acetone	✔		1	624.1	3.79	<3.79	<3.79	7.97 mg/L	---
Phenol	✔		1	625.1	9.62	<9.62	<9.62	1,080 µg/L	

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	✔		1	624.1	0.110	<0.110	<0.110	4.4 µg/L	
1,2 Dichlorobenzene	✔		1	624.1	0.160	<0.160	<0.160	600 µg/L	---
1,3 Dichlorobenzene	✔		1	624.1	0.120	<0.120	<0.120	320 µg/L	---
1,4 Dichlorobenzene	✔		1	624.1	0.130	<0.130	<0.130	5.0 µg/L	---
Total dichlorobenzene	✔							763 µg/L in NH	---
1,1 Dichloroethane	✔		1	624.1	0.160	<0.160	<0.160	70 µg/L	---
1,2 Dichloroethane	✔		1	624.1	0.410	<0.410	<0.410	5.0 µg/L	---
1,1 Dichloroethylene	✔		1	624.1	0.320	<0.320	<0.320	3.2 µg/L	---
Ethylene Dibromide	✔		1	504.1	0.020	<0.020	<0.020	0.05 µg/L	---
Methylene Chloride	✔		1	624.1	0.340	<0.340	<0.340	4.6 µg/L	---
1,1,1 Trichloroethane	✔		1	624.1	0.200	<0.200	<0.200	200 µg/L	---
1,1,2 Trichloroethane	✔		1	624.1	0.160	<0.160	<0.160	5.0 µg/L	---
Trichloroethylene	✔		1	624.1	0.240	<0.240	<0.240	5.0 µg/L	---
Tetrachloroethylene	✔		1	624.1	0.180	<0.180	<0.180	5.0 µg/L	
cis-1,2 Dichloroethylene	✔		1	624.1	0.310	<0.310	0.310	70 µg/L	---
Vinyl Chloride	✔		1	624.1	0.450	<0.450	<0.450	2.0 µg/L	---
D. Non-Halogenated SVOCs									
Total Phthalates	✔			625.1		<190	<190	190 µg/L	
Diethylhexyl phthalate	✔		1	625.1	0.41	<0.41	<0.41	101 µg/L	
Total Group I PAHs	✔					<1.0	<1.0	1.0 µg/L	---
Benzo(a)anthracene	✔		1	625.1	0.015	<0.015	<0.015	As Total PAHs	
Benzo(a)pyrene	✔		1	625.1	0.012	<0.012	<0.012		
Benzo(b)fluoranthene	✔		1	625.1	0.014	<0.014	<0.014		
Benzo(k)fluoranthene	✔		1	625.1	0.012	<0.012	<0.012		
Chrysene	✔		1	625.1	0.014	<0.014	<0.014		
Dibenzo(a,h)anthracene	✔		1	625.1	0.016	<0.016	<0.016		
Indeno(1,2,3-cd)pyrene	✔		1	625.1	0.017	<0.017	<0.017		

Parameter	Known or believed absent	Known or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Influent		Effluent Limitations	
						Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs	✔			625.1	100	<100	<100	100 µg/L	---
Naphthalene	✔		1	625.1	4.81	<4.81	<4.81	20 µg/L	---
E. Halogenated SVOCs									
Total PCBs	✔		1	608.3	0.0962	<0.0962	<0.0962	0.000064 µg/L	---
Pentachlorophenol	✔		1	625.1	0.32	<0.32	<0.32	1.0 µg/L	---
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✔		1	8100	200	<200	<200	5.0 mg/L	---
Ethanol	✔		1	624.1	10.5	<10.5	<10.5	Report mg/L	---
Methyl-tert-Butyl Ether	✔		1	624.1	0.250	<0.250	<0.250	70 µg/L	
tert-Butyl Alcohol	✔		1	624.1	4.17	<4.17	<4.17	120 µg/L in MA 40 µg/L in NH	---
tert-Amyl Methyl Ether	✔		1	624.1	0.140	<0.140	<0.140	90 µg/L in MA 140 µg/L in NH	---
Other (i.e., pH, temperature, hardness, salinity, LC_{50}, additional pollutants present); if so, specify:									
pH		✔	1			6.86			
Hardness		✔				440 mg/L			
Receiving Water									
Lead		✔	1	200.8	0.50	2.7	2.7		
Zinc		✔	1	200.8	10	15	15		
Hardness		✔	1	200.7	NA	74000	74000		
Chromium		✔	1	200.8	1.0	1.3	1.3		
Copper		✔	1	200.8	1.0	5.3	5.3		
Iron		✔	1	200.7	50	940	940		
pH		✔	1			6.94			
TSS		✔	1	2540	2500	5000	5000		
Ammonia as N		✔	1	4500	0.024	0.163	0.163		

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.

Water from construction dewatering activities will be pumped to a weir tank for primary settling. From the weir tank water will be pumped through a dual bag filter skid with 5 micron bag filtration. It is assumed that any metal concentrations will be handled by bag filtration.

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: Bag 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.	35
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): ☐ Yes ☐ 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) ■ the operator ☐ EPA ☐ 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. Supplemental information

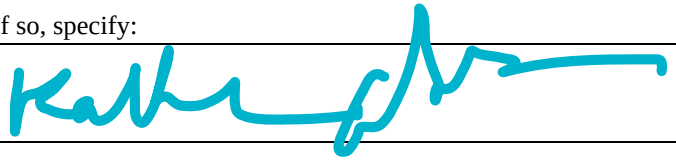
Describe any supplemental information being provided with the NOI. Include attachments if required or otherwise necessary.

Has the operator attached data, including any laboratory case narrative and chain of custody used to support the application? (check one): ■ Yes ☐ No

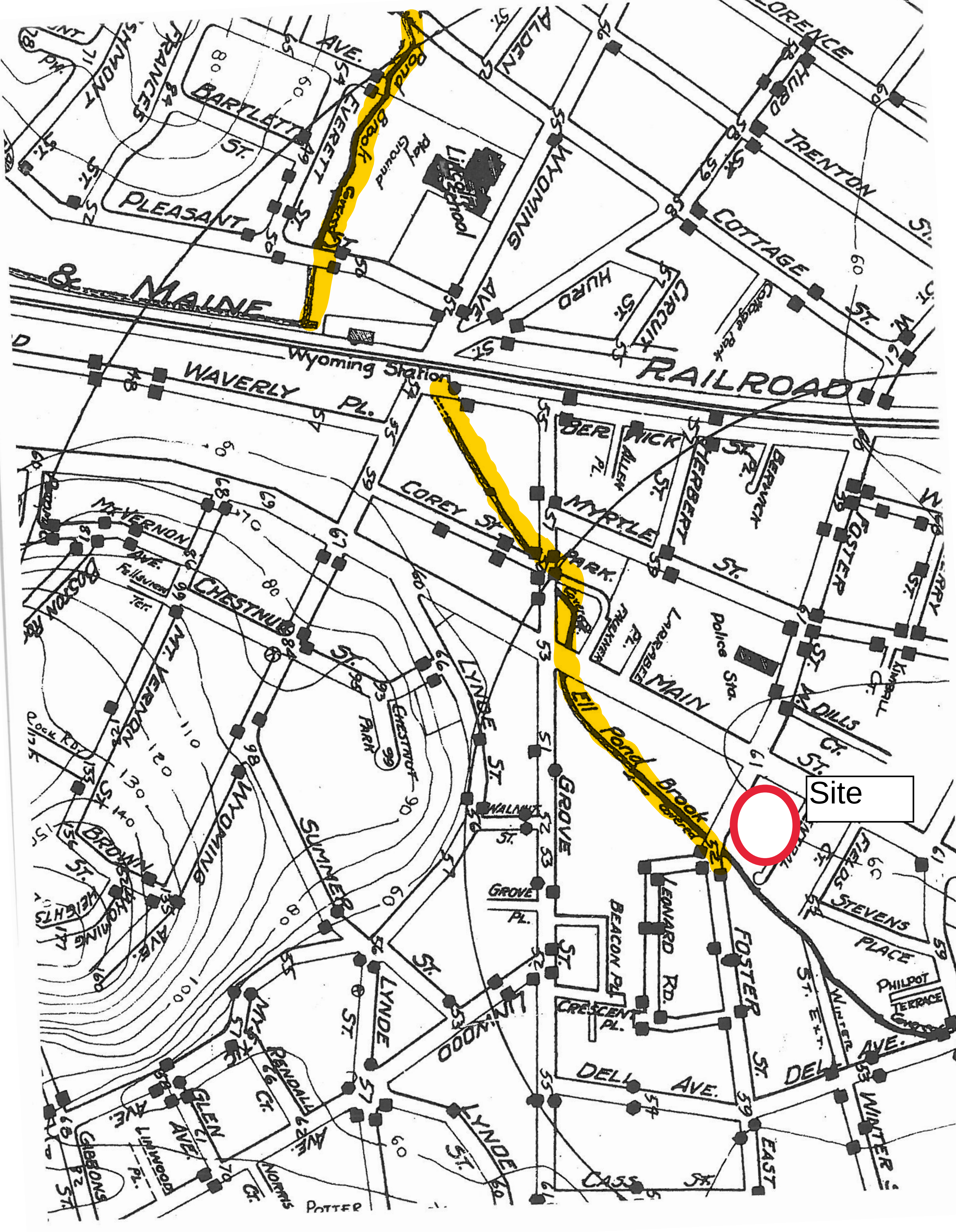
Has the operator attached the certification requirement for the Best Management Practices Plan (BMPP)? (check one): ■ Yes ☐ No

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.

BMPP certification statement:	A BMPP will be developed and maintained to meet the general requirements of this permit. The BMPP will be implemented on-site prior to initiation of discharge.
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.	Check one: Yes ■ No ☐ NA ☐
Permission obtained from the owner of a private or municipal storm sewer system, if such system is used for site 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 ☐ Other; if so, specify:	Check one: Yes ☐ No ☐ NA ■
Signature: 	Date: Jan 31 2020
Print Name and Title: Kathleen M. Walsh, President and CEO	

Stormwater Outfall Map


Site
Pond Brook
Ell Pond Brook
Wyoming Station
& MAINE
RAILROAD
WAVERLY PL.
BARTLETT ST.
PLEASANT ST.
EVERETT ST.
FRANCES
AVE.
Play Ground
Lincoln School
WYOMING AVE.
ALDEN ST.
HURD ST.
CIRCUIT
Cottage Park
COTTAGE ST.
TRENTON ST.
FLORENCE
BERWICK ST.
ALLEN PL.
HERBERT ST.
COREY ST.
MYRTLE
PARK
FAULKNER PL.
LARRABEE
MAIN
Police Sta.
FOSTER ST.
DILLS CT.
KIMBALL CT.
MT. VERNON
CHESTNUT ST.
Fellsview Ter.
MT. VERNON AVE.
LYNDE ST.
Chestnut Park
WALNUT ST.
GROVE ST.
GROVE PL.
BEACON PL.
LEONARD RD.
CRESCENT PL.
FIELDS ST.
STEVENS PLACE
PHILPOT TERRACE
WINTER ST.
DELL AVE.
EAST ST.
CASS ST.
SUMMER ST.
WYOMING AVE.
BROWN ST.
ROCK RD.
RENDALL
GLEN AVE.
LINWOOD PL.
GIBBONS
POTTER
NORRIS
UPHAM

MA Limits

WQBEL

Enter number values in green boxes below

Enter values in the units specified

↓

0.158	Q_R = Enter upstream flow in **MGD**
0.072	Q_P = Enter discharge flow in **MGD**
0	Downstream 7Q10

Enter a dilution factor, if other than zero

↓

3.19

Enter values in the units specified

↓

440	C_d = Enter influent hardness in **mg/L** $CaCO_3$
74	C_s = Enter receiving water hardness in **mg/L** $CaCO_3$

Enter **receiving water** concentrations in the units specified

↓

6.94	pH in **Standard Units**
2	Temperature in **^oC**
0.163	Ammonia in **mg/L**
74	Hardness in **mg/L** $CaCO_3$
0	Salinity in **ppt**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
0	Cadmium in **µg/L**
1.3	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
5.3	Copper in **µg/L**
940	Iron in **µg/L**
2.7	Lead in **µg/L**
0	Mercury in **µg/L**
0	Nickel in **µg/L**
0	Selenium in **µg/L**
0	Silver in **µg/L**
15	Zinc in **µg/L**

Enter **influent** concentrations in the units specified

↓

0	TRC in **µg/L**
95	Ammonia in **mg/L**
0	Antimony in **µg/L**
0	Arsenic in **µg/L**
1.4	Cadmium in **µg/L**
1.3	Chromium III in **µg/L**
0	Chromium VI in **µg/L**
19	Copper in **µg/L**
240	Iron in **µg/L**
0	Lead in **µg/L**
0	Mercury in **µg/L**
9.4	Nickel in **µg/L**
3.3	Selenium in **µg/L**
0	Silver in **µg/L**
12	Zinc in **µg/L**
0	Cyanide in **µg/L**
0	Phenol in **µg/L**
0	Carbon Tetrachloride in **µg/L**
0	Tetrachloroethylene 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**
0	Methyl-tert butyl ether in **µg/L**

Dilution Factor	3.2			
	TBEL applies if bolded		WQBEL applies if bolded	
A. Inorganics				
Ammonia	**Report**	mg/L	---	
Chloride	**Report**	µg/L	---	
Total Residual Chlorine	0.2	mg/L	**35**	µg/L
Total Suspended Solids	**30**	mg/L	---	
Antimony	**206**	µg/L	2044	µg/L
Arsenic	**104**	µg/L	32	µg/L
Cadmium	10.2	µg/L	**1.1759**	µg/L
Chromium III	**323**	µg/L	384.0	µg/L
Chromium VI	**323**	µg/L	36.5	µg/L
Copper	**242**	µg/L	30.9	µg/L
Iron	**5000**	µg/L	1132	µg/L
Lead	**160**	µg/L	11.32	µg/L
Mercury	**0.739**	µg/L	2.89	µg/L
Nickel	**1450**	µg/L	236.8	µg/L
Selenium	**235.8**	µg/L	16.0	µg/L
Silver	**35.1**	µg/L	24.7	µg/L
Zinc	**420**	µg/L	511.2	µg/L
Cyanide	**178**	mg/L	16.6	µg/L
B. Non-Halogenated VOCs				
Total BTEX	**100**	µg/L	---	
Benzene	**5.0**	µg/L	---	
1,4 Dioxane	**200**	µg/L	---	
Acetone	**7970**	µg/L	---	
Phenol	**1,080**	µg/L	958	µg/L
C. Halogenated VOCs				
Carbon Tetrachloride	**4.4**	µg/L	5.1	µg/L
1,2 Dichlorobenzene	**600**	µg/L	---	
1,3 Dichlorobenzene	**320**	µg/L	---	
1,4 Dichlorobenzene	**5.0**	µg/L	---	
Total dichlorobenzene	**---**	µg/L	---	
1,1 Dichloroethane	**70**	µg/L	---	
1,2 Dichloroethane	**5.0**	µg/L	---	
1,1 Dichloroethylene	**3.2**	µg/L	---	
Ethylene Dibromide	**0.05**	µg/L	---	
Methylene Chloride	**4.6**	µg/L	---	
1,1,1 Trichloroethane	**200**	µg/L	---	
1,1,2 Trichloroethane	**5.0**	µg/L	---	
Trichloroethylene	**5.0**	µg/L	---	
Tetrachloroethylene	**5.0**	µg/L	10.5	µg/L
cis-1,2 Dichloroethylene	**70**	µg/L	---	

Vinyl Chloride	**2.0**	µg/L	---	
D. Non-Halogenated SVOCs				
Total Phthalates	**190**	µg/L	---	µg/L
Diethylhexyl phthalate	**101**	µg/L	7.0	µg/L
Total Group I Polycyclic Aromatic Hydrocarbons	**1.0**	µg/L	---	
Benzo(a)anthracene	**1.0**	µg/L	0.0121	µg/L
Benzo(a)pyrene	**1.0**	µg/L	0.0121	µg/L
Benzo(b)fluoranthene	**1.0**	µg/L	0.0121	µg/L
Benzo(k)fluoranthene	**1.0**	µg/L	0.0121	µg/L
Chrysene	**1.0**	µg/L	0.0121	µg/L
Dibenzo(a,h)anthracene	**1.0**	µg/L	0.0121	µg/L
Indeno(1,2,3-cd)pyrene	**1.0**	µg/L	0.0121	µg/L
Total Group II Polycyclic Aromatic Hydrocarbons	**100**	µg/L	---	
Naphthalene	**20**	µg/L	---	
E. Halogenated SVOCs				
Total Polychlorinated Biphenyls	**0.000064**	µg/L	---	
Pentachlorophenol	**1.0**	µg/L	---	
F. Fuels Parameters				
Total Petroleum Hydrocarbons	**5.0**	mg/L	---	
Ethanol	**Report**	mg/L	---	
Methyl-tert-Butyl Ether	**70**	µg/L	64	µg/L
tert-Butyl Alcohol	**120**	µg/L	---	
tert-Amyl Methyl Ether	**90**	µg/L	---	

Dilution Factor

Confirmation, Stream Stats

Report and Dilution

Calculations

From: Ruan, Xiaodan (DEP)
To: Jake Jennings
Cc: Brian Caccavale; Vakalopoulos, Catherine (DEP)
Subject: RE: Dilution Calcs 497 Main Street Melrose, MA
Date: Tuesday, February 4, 2020 4:42:38 PM

Hi Jake,

I can confirm that the 7Q10 of 0.245 cfs and the dilution factor of 3.19 are correct for the project at 497 Main Street, Melrose, with a proposed discharge to the Spot Pond Brook, and then to Malden River, at a maximum flow rate of 50 gpm are correct.

As you have already provided in your email that this segment of Malden River is identified as MA71-05, classified as Class B, and is not listed as an Outstanding Resource Water. The Malden River is within the Boston Harbor watershed, and there is an approved TMDL for pathogens (https://www.mass.gov/doc/final-pathogen-tmdl-report-for-the-boston-harbor-weymouth-weir-and-mystic-watersheds/download). To see the causes of impairments, go to: https://www.epa.gov/sites/production/files/2020-01/documents/2016-ma-303d-list-report.pdf and search for "MA71-05".

In addition to submitting the EPA NOI for the RGP, if this is not a *current* MCP site, you will have to apply to MassDEP and submit a fee (unless fee exempt, e.g., a municipality). Instructions are located here: https://www.mass.gov/how-to/wm-15-npdes-general-permit-notice-of-intent.

Please let me know if you have any questions.

Thanks,
Xiaodan

From: Jake Jennings <JJennings@lrt-llc.net>
Sent: Monday, February 3, 2020 9:33 AM
To: Vakalopoulos, Catherine (DEP) <catherine.vakalopoulos@mass.gov>
Cc: Ruan, Xiaodan (DEP) <xiaodan.ruan@mass.gov>; Brian Caccavale <bcaccavale@lrt-llc.net>
Subject: Dilution Calcs 497 Main Street Melrose, MA

Hi Cathy,

Please see attached streamstats Report along with our dilution calcs for your review and confirmation.

The Project location:

Based on our discussions with the city of Melrose we will be discharging to an underground portion of Ell Pond Brook which becomes Spot Pond Brook which is a tributary of the Malden river (MA71-05). I've attached the outfall map provided by the city for your reference.

Melrose YMCA

497 Main Street
Melrose, MA

The 7 day 10 year flow value from the streamstats report is 0.245 cfs and the calculated dilution factor is 3.19.

Can you please confirm that these values are appropriate.

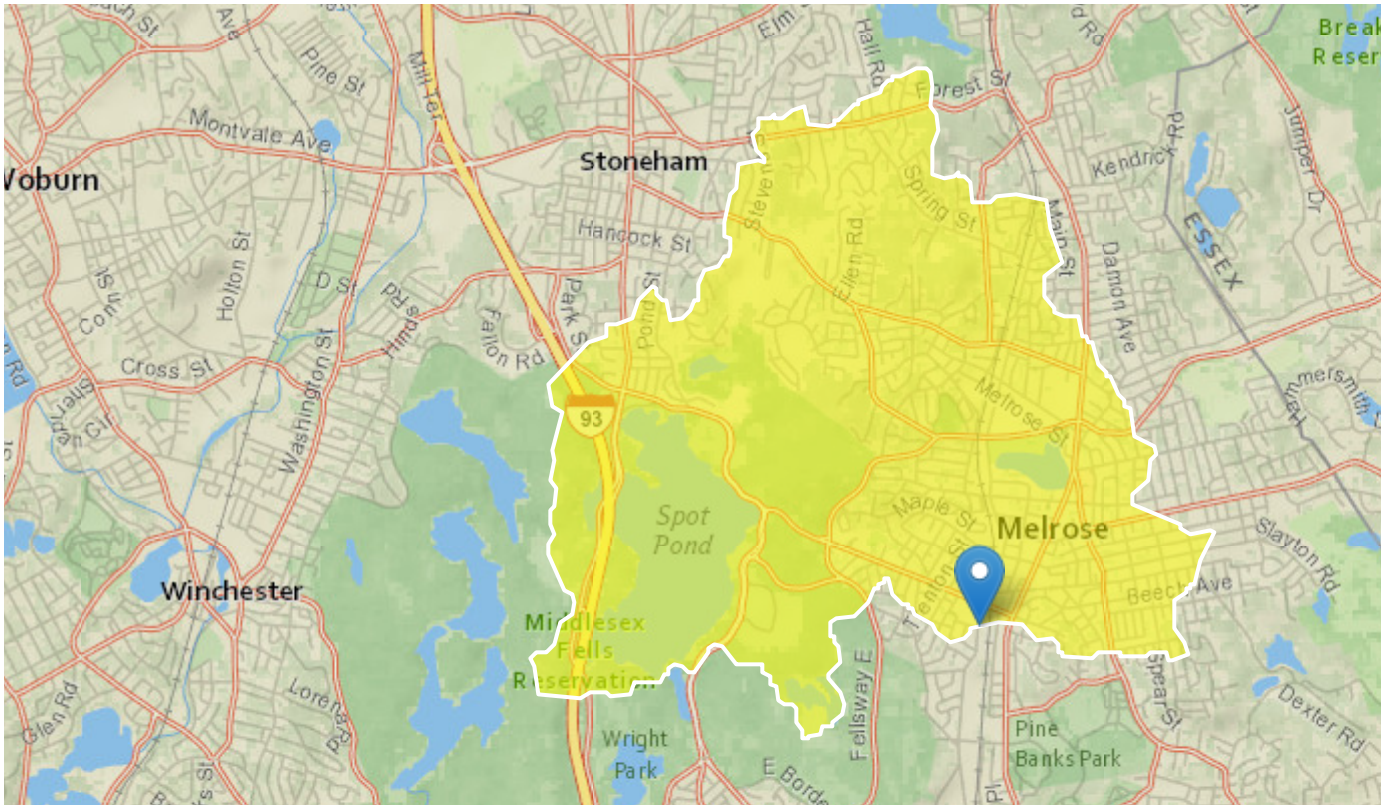
Thank you,

Jake Jennings

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
O: 774.450.7177
F: 888.835.0617
M: 508.930.9812
jjennings@lrt-llc.net

StreamStats Report

Region ID: MA
Workspace ID: MA20200203140906560000
Clicked Point (Latitude, Longitude): 42.45077, -71.07032
Time: 2020-02-03 09:09:23 -0500



Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	4.99	square miles
BSLDEM250	Mean basin slope computed from 1:250K DEM	2.697	percent
DRFTPERSTR	Area of stratified drift per unit of stream length	0.24	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless

Low-Flow Statistics Parameters[Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.99	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	2.697	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.24	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

Low-Flow Statistics Flow Report[Statewide Low Flow WRIR00 4135]

PII: Prediction Interval-Lower, PIu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	PIu	SE	SEp
7 Day 2 Year Low Flow	0.552	ft^3/s	0.197	1.49	49.5	49.5
7 Day 10 Year Low Flow	0.245	ft^3/s	0.0682	0.817	70.8	70.8

Low-Flow Statistics Citations

Ries, K.G., III,2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (http://pubs.usgs.gov/wri/wri004135/)

Application Version: 4.3.11

DILUTION CALCULATIONS
Melrose YMCA
Melrose, MA

Calculate Dilution Factor (DF) for project based on 7 Day 10 Year (7Q10) Low Flow values

Calculate DF based on EPA formula $(Q_S + Q_D)/Q_D$, where Q_S is 7Q10 in million gallons per day (MGD) and Q_D is discharge flow in MGD

ASSUMPTIONS FOR 50 GPM SYSTEM

7Q10 is 0.245 cubic feet per second (cfs) - from StreamStats 4.0
A conversion of 7.48 is used to convert cubic feet to gallons
A design flow rate of 50 gallons per minute (gpm) is assumed

CALCULATIONS

7q10 Low Flow Value (Q_S)

$$Q_S = \frac{0.245 ft^3}{sec} \times \frac{7.48 \text{ gallons}}{ft^3} \times \frac{86{,}400 \text{ sec}}{day} \times \frac{1 \text{ MG}}{1{,}000{,}000 \text{ gallons}} = 0.158 \text{ MGD}$$

Discharge Flow Rate (Q_D)

$$Q_D = \frac{50 \text{ gallons}}{min} \times \frac{1{,}440 \text{ min}}{day} \times \frac{1MG}{1{,}000{,}000 \text{ gallons}} = 0.072 \text{ MGD}$$

Dilution Factor (DF)

$$DF = \frac{Q_S + Q_D}{Q_D} = \frac{0.158 \text{ MGD} + 0.072 \text{ MDG}}{0.072 \text{ MGD}} = 3.19$$

Appendix B
Laboratory Data

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

February 3, 2020

Brian Caccavale
Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453

Project Location: 497 Main St., Melrose, MA
Client Job Number:
Project Number: 2-1990
Laboratory Work Order Number: 20A1173

Enclosed are results of analyses for samples received by the laboratory on January 27, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerry K. McGee
Project Manager

Table of Contents

Table of Contents (continued)

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

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
ATTN: Brian Caccavale

REPORT DATE: 2/3/2020

PURCHASE ORDER NUMBER: 2-1990

PROJECT NUMBER: 2-1990

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20A1173

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

PROJECT LOCATION: 497 Main St., Melrose, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Influent	20A1173-01	Ground Water		608.3	
				624.1	
				625.1	
				EPA 504.1	
				SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM21-22 4500 CL G	
				SM21-22 4500 CN E	MA M-MA-086/CT PH-0574/NY11148
				SW-846 8100 Modified	
Receiving Water	20A1173-02	Ground Water		EPA 200.7	
				EPA 200.8	
				EPA 245.1	
				SM19-22 4500 NH3 C	MA M-MA-086/CT PH-0574/NY11148
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				Tri Chrome Calc.	

con-test® ANALYTICAL LABORATORY

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

CASE NARRATIVE SUMMARY

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

For metihod625 Stiandard Low, pentiachlorophenol was calibratied using non-linear calibration.

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

624.1

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:

Ethanol
B251069-BS1, S045151-CCV1

Vinyl Chloride
B251069-BS1, S045151-CCV1

L-03

Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

tert-Amyl Methyl Ether (TAME)
20A1173-01[Influent], B251069-BLK1, B251069-BS1, S045151-CCV1

625.1

Qualifications:

L-04

Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.

Analyte & Samples(s) Qualified:

Hexachlorocyclopentadiene
20A1173-01[Influent], B251104-BLK1, B251104-BS1, B251104-BSD1

L-07

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

Analyte & Samples(s) Qualified:

2-Chloronaphthalene
B251104-BSD1

V-04

Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.

Analyte & Samples(s) Qualified:

Benzidine
20A1173-01[Influent], B251104-BLK1, B251104-BS1, B251104-BSD1

V-05

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

Analyte & Samples(s) Qualified:

Benzidine
20A1173-01[Influent], B251104-BLK1, B251104-BS1, B251104-BSD1

Hexachlorocyclopentadiene
20A1173-01[Influent], B251104-BLK1, B251104-BS1, B251104-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:

N-Nitrosodimethylamine
20A1173-01[Influent], B251104-BLK1, B251104-BS1, B251104-BSD1

EPA 200.7

Qualifications:

B

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

Analyte & Samples(s) Qualified:

Hardness
20A1173-02[Receiving Water], B251091-BS1, B251091-BSD1

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

SW-846 8100 Modified

TPH (C9-C36) is quantitated against a calibration made with a diesel standard.

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

Lisa A. Worthington
Technical Representative

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

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	1/29/20	1/29/20 16:00	MFF
tert-Amyl Methyl Ether (TAME)	<0.140	1.00	0.140	µg/L	1	L-03	624.1	1/29/20	1/29/20 16:00	MFF
Benzene	<0.180	1.00	0.180	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Bromodichloromethane	<0.160	2.00	0.160	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Bromoform	<0.460	2.00	0.460	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Bromomethane	<0.780	2.00	0.780	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
tert-Butyl Alcohol (TBA)	<4.17	20.0	4.17	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Carbon Tetrachloride	<0.110	2.00	0.110	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Chlorobenzene	<0.150	2.00	0.150	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Chlorodibromomethane	<0.210	2.00	0.210	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Chloroethane	<0.350	2.00	0.350	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Chloroform	<0.170	2.00	0.170	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Chloromethane	<0.450	2.00	0.450	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,2-Dichlorobenzene	<0.160	2.00	0.160	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,3-Dichlorobenzene	<0.120	2.00	0.120	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,4-Dichlorobenzene	<0.130	2.00	0.130	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,2-Dichloroethane	<0.410	2.00	0.410	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,1-Dichloroethane	<0.160	2.00	0.160	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,1-Dichloroethylene	<0.320	2.00	0.320	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
trans-1,2-Dichloroethylene	<0.310	2.00	0.310	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,2-Dichloropropane	<0.200	2.00	0.200	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
cis-1,3-Dichloropropene	<0.130	2.00	0.130	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,4-Dioxane	<22.5	50.0	22.5	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
trans-1,3-Dichloropropene	<0.230	2.00	0.230	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Ethanol	<10.5	50.0	10.5	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Ethylbenzene	<0.130	2.00	0.130	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Methyl tert-Butyl Ether (MTBE)	<0.250	2.00	0.250	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Methylene Chloride	<0.340	5.00	0.340	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,1,2,2-Tetrachloroethane	<0.220	2.00	0.220	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Tetrachloroethylene	<0.180	2.00	0.180	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Toluene	<0.140	1.00	0.140	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,1,1-Trichloroethane	<0.200	2.00	0.200	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
1,1,2-Trichloroethane	<0.160	2.00	0.160	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Trichloroethylene	<0.240	2.00	0.240	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Trichlorofluoromethane (Freon 11)	<0.330	2.00	0.330	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
Vinyl Chloride	<0.450	2.00	0.450	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
m+p Xylene	<0.300	2.00	0.300	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF
o-Xylene	<0.170	1.00	0.170	µg/L	1		624.1	1/29/20	1/29/20 16:00	MFF

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,2-Dichloroethane-d4	101	70-130		1/29/20 16:00
Toluene-d8	97.1	70-130		1/29/20 16:00
4-Bromofluorobenzene	92.1	70-130		1/29/20 16:00

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by GC/MS

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Benzo(a)anthracene (SIM)	<0.015	0.048	0.015	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Benzo(a)pyrene (SIM)	<0.012	0.096	0.012	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Benzo(b)fluoranthene (SIM)	<0.014	0.048	0.014	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Benzo(k)fluoranthene (SIM)	<0.012	0.19	0.012	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Bis(2-ethylhexyl)phthalate (SIM)	<0.41	0.96	0.41	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Chrysene (SIM)	<0.014	0.19	0.014	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Dibenz(a,h)anthracene (SIM)	<0.016	0.096	0.016	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Indeno(1,2,3-cd)pyrene (SIM)	<0.017	0.096	0.017	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR
Pentachlorophenol (SIM)	<0.32	0.96	0.32	µg/L	1		625.1	1/29/20	1/31/20 16:18	IMR

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol (SIM)	40.0	15-110		1/31/20 16:18
Phenol-d6 (SIM)	30.6	15-110		1/31/20 16:18
Nitrobenzene-d5	69.4	30-130		1/31/20 16:18
2-Fluorobiphenyl	62.4	30-130		1/31/20 16:18
2,4,6-Tribromophenol (SIM)	85.4	15-110		1/31/20 16:18
p-Terphenyl-d14	60.0	30-130		1/31/20 16:18

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Acenaphthene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Acenaphthylene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Anthracene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Benzidine	<19.2	19.2	µg/L	1	V-04, V-05	625.1	1/29/20	1/31/20 15:30	BGL
Benzo(g,h,i)perylene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
4-Bromophenylphenylether	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Butylbenzylphthalate	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
4-Chloro-3-methylphenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Bis(2-chloroethyl)ether	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Bis(2-chloroisopropyl)ether	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2-Chloronaphthalene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2-Chlorophenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
4-Chlorophenylphenylether	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Di-n-butylphthalate	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
1,3-Dichlorobenzene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
1,4-Dichlorobenzene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
1,2-Dichlorobenzene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
3,3-Dichlorobenzidine	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2,4-Dichlorophenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Diethylphthalate	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2,4-Dimethylphenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Dimethylphthalate	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
4,6-Dinitro-2-methylphenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2,4-Dinitrophenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2,4-Dinitrotoluene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2,6-Dinitrotoluene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Di-n-octylphthalate	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
1,2-Diphenylhydrazine/Azobenzene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Fluoranthene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Fluorene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Hexachlorobenzene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Hexachlorobutadiene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Hexachlorocyclopentadiene	<9.62	9.62	µg/L	1	V-05, L-04	625.1	1/29/20	1/31/20 15:30	BGL
Hexachloroethane	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Isophorone	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Naphthalene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Nitrobenzene	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2-Nitrophenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
4-Nitrophenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
N-Nitrosodimethylamine	<9.62	9.62	µg/L	1	V-06	625.1	1/29/20	1/31/20 15:30	BGL
N-Nitrosodiphenylamine	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
N-Nitrosodi-n-propylamine	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2-Methylnaphthalene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Phenanthrene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

Semivolatile Organic Compounds by - GC/MS

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
2-Methylphenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Phenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
3/4-Methylphenol	<19.2	19.2	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
Pyrene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
1,2,4-Trichlorobenzene	<4.81	4.81	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL
2,4,6-Trichlorophenol	<9.62	9.62	µg/L	1		625.1	1/29/20	1/31/20 15:30	BGL

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
2-Fluorophenol	37.8	15-110		1/31/20 15:30
Phenol-d6	27.6	15-110		1/31/20 15:30
Nitrobenzene-d5	59.5	30-130		1/31/20 15:30
2-Fluorobiphenyl	72.6	30-130		1/31/20 15:30
2,4,6-Tribromophenol	68.8	15-110		1/31/20 15:30
p-Terphenyl-d14	60.1	30-130		1/31/20 15:30

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Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

Polychlorinated Biphenyls By GC/ECD

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Aroclor-1016 [1]	<0.0885	0.0962	0.0885	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB
Aroclor-1221 [1]	<0.0774	0.0962	0.0774	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB
Aroclor-1232 [1]	<0.0957	0.0962	0.0957	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB
Aroclor-1242 [1]	<0.0832	0.0962	0.0832	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB
Aroclor-1248 [1]	<0.0913	0.0962	0.0913	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB
Aroclor-1254 [1]	<0.0505	0.0962	0.0505	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB
Aroclor-1260 [1]	<0.0942	0.0962	0.0942	µg/L	1		608.3	1/30/20	1/31/20 13:09	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
Decachlorobiphenyl [1]	66.7	30-150		1/31/20 13:09
Decachlorobiphenyl [2]	74.8	30-150		1/31/20 13:09
Tetrachloro-m-xylene [1]	68.7	30-150		1/31/20 13:09
Tetrachloro-m-xylene [2]	80.5	30-150		1/31/20 13:09

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

Petroleum Hydrocarbons Analyses

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
TPH (C9-C36)	ND	0.20	mg/L	1		SW-846 8100 Modified	1/31/20	2/2/20 15:48	RDD

Surrogates	% Recovery	Recovery Limits	Flag/Qual				
2-Fluorobiphenyl	97.2	40-140					2/2/20 15:48

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

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

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chlorine, Residual	ND	0.020		mg/L	1		SM21-22 4500 CL G	1/27/20	1/27/20 21:25	KMV

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Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

Drinking Water Organics EPA 504.1

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
1,2-Dibromoethane (EDB) (1)	ND	0.020	0.012	µg/L	1		EPA 504.1	1/30/20	1/30/20 23:15	JMB

Surrogates	% Recovery	Recovery Limits	Flag/Qual	
1,3-Dibromopropane (1)	107	70-130		1/30/20 23:15

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

Project Location: 497 Main St., Melrose, MA Sample Description: Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Influent Sampled: 1/27/2020 11:30

Sample ID: 20A1173-01

Sample Matrix: Ground Water

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

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.095	0.075	0.024	mg/L	1		SM19-22 4500 NH3 C		1/30/20 20:14	AAL
Cyanide	ND	0.005	0.001	mg/L	1		SM21-22 4500 CN E		1/30/20 11:36	AAL

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

Project Location: 497 Main St., Melrose, MA Sample Description: Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Receiving Water Sampled: 1/27/2020 13:00

Sample ID: 20A1173-02

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Arsenic	ND	0.80	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Cadmium	ND	0.20	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Chromium	1.3	1.0	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Chromium, Trivalent	0.0013		mg/L	1		Tri Chrome Calc.	1/29/20	1/29/20 16:48	MJH
Copper	5.3	1.0	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Iron	0.94	0.050	mg/L	1		EPA 200.7	1/29/20	1/29/20 17:31	ICP
Lead	2.7	0.50	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Mercury	ND	0.00010	mg/L	1		EPA 245.1	1/29/20	1/30/20 11:54	CJV
Nickel	ND	5.0	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Silver	ND	0.20	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Zinc	15	10	µg/L	1		EPA 200.8	1/29/20	1/29/20 16:37	MJH
Hardness	74		mg/L	1	B	EPA 200.7	1/29/20	1/29/20 17:31	ICP

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Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Receiving Water | Sampled: 1/27/2020 13:00

Sample ID: 20A1173-02

Sample Matrix: Ground Water

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

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Hexavalent Chromium	ND	0.0040		mg/L	1		SM21-22 3500 Cr B	1/27/20	1/27/20 20:20	KMV
Total Suspended Solids	5.0	2.5		mg/L	1		SM21-22 2540D	1/28/20	1/28/20 12:00	LL

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Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1173

Date Received: 1/27/2020

Field Sample #: Receiving Water | Sampled: 1/27/2020 13:00

Sample ID: 20A1173-02

Sample Matrix: Ground Water

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

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Ammonia as N	0.163	0.075	0.024	mg/L	1		SM19-22 4500 NH3 C		1/30/20 20:14	AAL

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Sample Extraction Data

Prep Method: SW-846 3510C-608.3

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B251166	1040	5.00	01/30/20

Prep Method: SW-846 5030B-624.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B251069	5	5.00	01/29/20

Prep Method: SW-846 3510C-625.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B251104	1040	1.00	01/29/20

Prep Method: SW-846 3510C-625.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B251334	1040	1.00	01/29/20

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-02 [Receiving Water]	B251091	50.0	50.0	01/29/20
20A1173-02 [Receiving Water]	B251091	50.0		01/29/20

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-02 [Receiving Water]	B251090	50.0	50.0	01/29/20

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-02 [Receiving Water]	B251088	6.00	6.00	01/29/20

Prep Method: EPA 504 water-EPA 504.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B251234	35.6	35.0	01/30/20

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
20A1173-02 [Receiving Water]	B250973	200	01/28/20

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Sample Extraction Data

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-02 [Receiving Water]	B250957	50.0	50.0	01/27/20

SM21-22 4500 CL G

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B250959	100	100	01/27/20

Prep Method: SW-846 3510C-SW-846 8100 Modified

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1173-01 [Influent]	B251296	1020	1.00	01/31/20

Prep Method: EPA 200.8-Tri Chrome Calc.

Lab Number [Field ID]	Batch	Initial [mL]	Date
20A1173-02 [Receiving Water]	B251090	50.0	01/29/20

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B251069 - SW-846 5030B												
Blank (B251069-BLK1)				Prepared & Analyzed: 01/29/20								
Acetone	ND	50.0	µg/L									
tert-Amyl Methyl Ether (TAME)	ND	0.500	µg/L								L-03	
Benzene	ND	1.00	µg/L									
Bromodichloromethane	ND	2.00	µg/L									
Bromoform	ND	2.00	µg/L									
Bromomethane	ND	2.00	µg/L									
tert-Butyl Alcohol (TBA)	ND	20.0	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									
1,2-Dichlorobenzene	ND	2.00	µg/L									
1,3-Dichlorobenzene	ND	2.00	µg/L									
1,4-Dichlorobenzene	ND	2.00	µg/L									
1,2-Dichloroethane	ND	2.00	µg/L									
1,1-Dichloroethane	ND	2.00	µg/L									
1,1-Dichloroethylene	ND	2.00	µg/L									
trans-1,2-Dichloroethylene	ND	2.00	µg/L									
1,2-Dichloropropane	ND	2.00	µg/L									
cis-1,3-Dichloropropene	ND	2.00	µg/L									
1,4-Dioxane	ND	50.0	µg/L									
trans-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									
1,1,2,2-Tetrachloroethane	ND	2.00	µg/L									
Tetrachloroethylene	ND	2.00	µg/L									
Toluene	ND	1.00	µg/L									
1,1,1-Trichloroethane	ND	2.00	µg/L									
1,1,2-Trichloroethane	ND	2.00	µg/L									
Trichloroethylene	ND	2.00	µg/L									
Trichlorofluoromethane (Freon 11)	ND	2.00	µg/L									
Vinyl Chloride	ND	2.00	µg/L									
m+p Xylene	ND	2.00	µg/L									
o-Xylene	ND	1.00	µg/L									
Surrogate: 1,2-Dichloroethane-d4	*25.4*		µg/L	25.0		102		70-130				
Surrogate: Toluene-d8	*24.7*		µg/L	25.0		98.8		70-130				
Surrogate: 4-Bromofluorobenzene	*22.4*		µg/L	25.0		89.8		70-130				
LCS (B251069-BS1)				Prepared & Analyzed: 01/29/20								
Acetone	230	50.0	µg/L	200		117		70-160				†
tert-Amyl Methyl Ether (TAME)	14	0.500	µg/L	20.0		**69.2**	*	70-130			L-03	
Benzene	18	1.00	µg/L	20.0		90.4		65-135				
Bromodichloromethane	21	2.00	µg/L	20.0		103		65-135				
Bromoform	19	2.00	µg/L	20.0		95.0		70-130				
Bromomethane	17	2.00	µg/L	20.0		87.4		15-185				
tert-Butyl Alcohol (TBA)	150	20.0	µg/L	200		74.0		40-160				†
Carbon Tetrachloride	21	2.00	µg/L	20.0		106		70-130				
Chlorobenzene	19	2.00	µg/L	20.0		95.2		65-135				

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QUALITY CONTROL

Volatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes	
Batch B251069 - SW-846 5030B												
LCS (B251069-BS1)				Prepared & Analyzed: 01/29/20								
Chlorodibromomethane	19	2.00	µg/L	20.0		93.6		70-135				
Chloroethane	21	2.00	µg/L	20.0		106		40-160				
Chloroform	18	2.00	µg/L	20.0		90.2		70-135				
Chloromethane	21	2.00	µg/L	20.0		106		20-205				
1,2-Dichlorobenzene	20	2.00	µg/L	20.0		102		65-135				
1,3-Dichlorobenzene	22	2.00	µg/L	20.0		109		70-130				
1,4-Dichlorobenzene	21	2.00	µg/L	20.0		104		65-135				
1,2-Dichloroethane	20	2.00	µg/L	20.0		101		70-130				
1,1-Dichloroethane	20	2.00	µg/L	20.0		102		70-130				
1,1-Dichloroethylene	23	2.00	µg/L	20.0		115		50-150				
trans-1,2-Dichloroethylene	22	2.00	µg/L	20.0		108		70-130				
1,2-Dichloropropane	20	2.00	µg/L	20.0		100		35-165				
cis-1,3-Dichloropropene	21	2.00	µg/L	20.0		105		25-175				
1,4-Dioxane	190	50.0	µg/L	200		94.8		40-130				†
trans-1,3-Dichloropropene	21	2.00	µg/L	20.0		107		50-150				
Ethanol	350	50.0	µg/L	200		**176**	*	40-160			L-01	
Ethylbenzene	21	2.00	µg/L	20.0		103		60-140				
Methyl tert-Butyl Ether (MTBE)	19	2.00	µg/L	20.0		95.6		70-130				
Methylene Chloride	21	5.00	µg/L	20.0		107		60-140				
1,1,2,2-Tetrachloroethane	19	2.00	µg/L	20.0		93.0		60-140				
Tetrachloroethylene	20	2.00	µg/L	20.0		99.5		70-130				
Toluene	20	1.00	µg/L	20.0		97.6		70-130				
1,1,1-Trichloroethane	21	2.00	µg/L	20.0		104		70-130				
1,1,2-Trichloroethane	18	2.00	µg/L	20.0		91.5		70-130				
Trichloroethylene	20	2.00	µg/L	20.0		98.2		65-135				
Trichlorofluoromethane (Freon 11)	21	2.00	µg/L	20.0		103		50-150				
Vinyl Chloride	70	2.00	µg/L	20.0		**350**	*	5-195			L-01	
m+p Xylene	41	2.00	µg/L	40.0		103		70-130				
o-Xylene	21	1.00	µg/L	20.0		103		70-130				
Surrogate: 1,2-Dichloroethane-d4	*26.5*		µg/L	25.0		106		70-130				
Surrogate: Toluene-d8	*24.7*		µg/L	25.0		98.8		70-130				
Surrogate: 4-Bromofluorobenzene	*23.2*		µg/L	25.0		92.7		70-130				

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QUALITY CONTROL

Semivolatile Organic Compounds by GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251334 - SW-846 3510C										
Blank (B251334-BLK1)				Prepared: 01/29/20 Analyzed: 01/31/20						
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							
Bis(2-ethylhexyl)phthalate (SIM)	ND	1.0	µg/L							
Chrysene (SIM)	ND	0.20	µg/L							
Dibenz(a,h)anthracene (SIM)	ND	0.10	µg/L							
Indeno(1,2,3-cd)pyrene (SIM)	ND	0.10	µg/L							
Pentachlorophenol (SIM)	ND	1.0	µg/L							
Surrogate: 2-Fluorophenol (SIM)	*91.2*		µg/L	200		45.6	15-110			
Surrogate: Phenol-d6 (SIM)	*69.8*		µg/L	200		34.9	15-110			
Surrogate: Nitrobenzene-d5	*85.0*		µg/L	100		85.0	30-130			
Surrogate: 2-Fluorobiphenyl	*71.3*		µg/L	100		71.3	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	*200*		µg/L	200		100	15-110			
Surrogate: p-Terphenyl-d14	*79.4*		µg/L	100		79.4	30-130			
LCS (B251334-BS1)				Prepared: 01/29/20 Analyzed: 01/31/20						
Benzo(a)anthracene (SIM)	40.4	1.0	µg/L	50.0		80.8	33-143			
Benzo(a)pyrene (SIM)	39.3	2.0	µg/L	50.0		78.6	17-163			
Benzo(b)fluoranthene (SIM)	43.0	1.0	µg/L	50.0		86.0	24-159			
Benzo(k)fluoranthene (SIM)	47.6	4.0	µg/L	50.0		95.3	11-162			
Bis(2-ethylhexyl)phthalate (SIM)	38.3	20	µg/L	50.0		76.7	8-158			
Chrysene (SIM)	39.2	4.0	µg/L	50.0		78.4	17-168			
Dibenz(a,h)anthracene (SIM)	44.0	2.0	µg/L	50.0		88.1	10-227			
Indeno(1,2,3-cd)pyrene (SIM)	43.2	2.0	µg/L	50.0		86.4	10-171			
Pentachlorophenol (SIM)	41.3	20	µg/L	50.0		82.7	14-176			
Surrogate: 2-Fluorophenol (SIM)	*85.3*		µg/L	200		42.6	15-110			
Surrogate: Phenol-d6 (SIM)	*66.1*		µg/L	200		33.0	15-110			
Surrogate: Nitrobenzene-d5	*69.2*		µg/L	100		69.2	30-130			
Surrogate: 2-Fluorobiphenyl	*68.3*		µg/L	100		68.3	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	*170*		µg/L	200		85.1	15-110			
Surrogate: p-Terphenyl-d14	*58.3*		µg/L	100		58.3	30-130			
LCS Dup (B251334-BSD1)				Prepared: 01/29/20 Analyzed: 01/31/20						
Benzo(a)anthracene (SIM)	37.5	1.0	µg/L	50.0		75.1	33-143	7.29	53	
Benzo(a)pyrene (SIM)	36.2	2.0	µg/L	50.0		72.5	17-163	8.10	72	
Benzo(b)fluoranthene (SIM)	40.2	1.0	µg/L	50.0		80.4	24-159	6.78	71	
Benzo(k)fluoranthene (SIM)	44.2	4.0	µg/L	50.0		88.4	11-162	7.45	63	
Bis(2-ethylhexyl)phthalate (SIM)	36.0	20	µg/L	50.0		72.0	8-158	6.35	82	
Chrysene (SIM)	36.4	4.0	µg/L	50.0		72.9	17-168	7.35	87	
Dibenz(a,h)anthracene (SIM)	40.7	2.0	µg/L	50.0		81.4	10-227	7.83	126	
Indeno(1,2,3-cd)pyrene (SIM)	40.0	2.0	µg/L	50.0		79.9	10-171	7.75	99	‡
Pentachlorophenol (SIM)	39.9	20	µg/L	50.0		79.8	14-176	3.60	86	
Surrogate: 2-Fluorophenol (SIM)	*76.3*		µg/L	200		38.2	15-110			
Surrogate: Phenol-d6 (SIM)	*59.6*		µg/L	200		29.8	15-110			
Surrogate: Nitrobenzene-d5	*67.4*		µg/L	100		67.4	30-130			
Surrogate: 2-Fluorobiphenyl	*62.4*		µg/L	100		62.4	30-130			
Surrogate: 2,4,6-Tribromophenol (SIM)	*162*		µg/L	200		81.1	15-110			
Surrogate: p-Terphenyl-d14	*55.7*		µg/L	100		55.7	30-130			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251104 - SW-846 3510C										
Blank (B251104-BLK1)				Prepared: 01/29/20 Analyzed: 01/31/20						
Acenaphthene	ND	5.00	µg/L							
Acenaphthylene	ND	5.00	µg/L							
Anthracene	ND	5.00	µg/L							
Benzidine	ND	20.0	µg/L							V-04, V-05
Benzo(g,h,i)perylene	ND	5.00	µg/L							
4-Bromophenylphenylether	ND	10.0	µg/L							
Butylbenzylphthalate	ND	10.0	µg/L							
4-Chloro-3-methylphenol	ND	10.0	µg/L							
Bis(2-chloroethyl)ether	ND	10.0	µg/L							
Bis(2-chloroisopropyl)ether	ND	10.0	µg/L							
2-Chloronaphthalene	ND	10.0	µg/L							
2-Chlorophenol	ND	10.0	µg/L							
4-Chlorophenylphenylether	ND	10.0	µg/L							
Di-n-butylphthalate	ND	10.0	µg/L							
1,3-Dichlorobenzene	ND	5.00	µg/L							
1,4-Dichlorobenzene	ND	5.00	µg/L							
1,2-Dichlorobenzene	ND	5.00	µg/L							
3,3-Dichlorobenzidine	ND	10.0	µg/L							
2,4-Dichlorophenol	ND	10.0	µg/L							
Diethylphthalate	ND	10.0	µg/L							
2,4-Dimethylphenol	ND	10.0	µg/L							
Dimethylphthalate	ND	10.0	µg/L							
4,6-Dinitro-2-methylphenol	ND	10.0	µg/L							
2,4-Dinitrophenol	ND	10.0	µg/L							
2,4-Dinitrotoluene	ND	10.0	µg/L							
2,6-Dinitrotoluene	ND	10.0	µg/L							
Di-n-octylphthalate	ND	10.0	µg/L							
1,2-Diphenylhydrazine/Azobenzene	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							
Hexachlorobenzene	ND	10.0	µg/L							
Hexachlorobutadiene	ND	10.0	µg/L							
Hexachlorocyclopentadiene	ND	10.0	µg/L							L-04, V-05
Hexachloroethane	ND	10.0	µg/L							
Isophorone	ND	10.0	µg/L							
Naphthalene	ND	5.00	µg/L							
Nitrobenzene	ND	10.0	µg/L							
2-Nitrophenol	ND	10.0	µg/L							
4-Nitrophenol	ND	10.0	µg/L							
N-Nitrosodimethylamine	ND	10.0	µg/L							V-06
N-Nitrosodiphenylamine/Diphenylamine	ND	10.0	µg/L							
N-Nitrosodi-n-propylamine	ND	10.0	µg/L							
2-Methylnaphthalene	ND	5.00	µg/L							
Phenanthrene	ND	5.00	µg/L							
2-Methylphenol	ND	10.0	µg/L							
Phenol	ND	10.0	µg/L							
3/4-Methylphenol	ND	20.0	µg/L							
Pyrene	ND	5.00	µg/L							
1,2,4-Trichlorobenzene	ND	5.00	µg/L							
2,4,6-Trichlorophenol	ND	10.0	µg/L							
Surrogate: 2-Fluorophenol	*92.1*		µg/L	200		46.0	15-110			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B251104 - SW-846 3510C											
Blank (B251104-BLK1)				Prepared: 01/29/20 Analyzed: 01/31/20							
Surrogate: Phenol-d6	*66.0*		µg/L	200		33.0		15-110			
Surrogate: Nitrobenzene-d5	*73.6*		µg/L	100		73.6		30-130			
Surrogate: 2-Fluorobiphenyl	*87.3*		µg/L	100		87.3		30-130			
Surrogate: 2,4,6-Tribromophenol	*166*		µg/L	200		83.1		15-110			
Surrogate: p-Terphenyl-d14	*73.3*		µg/L	100		73.3		30-130			
LCS (B251104-BS1)				Prepared: 01/29/20 Analyzed: 01/31/20							
Acenaphthene	37.8	5.00	µg/L	50.0		75.6		47-145			
Acenaphthylene	37.3	5.00	µg/L	50.0		74.7		33-145			
Anthracene	40.8	5.00	µg/L	50.0		81.6		27-133			
Benzidine	36.4	20.0	µg/L	50.0		72.8		40-140			V-04, V-05
Benzo(g,h,i)perylene	35.7	5.00	µg/L	50.0		71.3		10-219			
4-Bromophenylphenylether	40.3	10.0	µg/L	50.0		80.6		53-127			
Butylbenzylphthalate	39.6	10.0	µg/L	50.0		79.2		10-152			
4-Chloro-3-methylphenol	39.7	10.0	µg/L	50.0		79.3		22-147			
Bis(2-chloroethyl)ether	37.2	10.0	µg/L	50.0		74.3		12-158			
Bis(2-chloroisopropyl)ether	43.5	10.0	µg/L	50.0		87.0		36-166			
2-Chloronaphthalene	31.9	10.0	µg/L	50.0		63.9		60-120			
2-Chlorophenol	33.1	10.0	µg/L	50.0		66.3		23-134			
4-Chlorophenylphenylether	39.6	10.0	µg/L	50.0		79.2		25-158			
Di-n-butylphthalate	41.0	10.0	µg/L	50.0		81.9		10-120			
1,3-Dichlorobenzene	25.0	5.00	µg/L	50.0		49.9		10-172			
1,4-Dichlorobenzene	25.8	5.00	µg/L	50.0		51.6		20-124			
1,2-Dichlorobenzene	25.8	5.00	µg/L	50.0		51.7		32-129			
3,3-Dichlorobenzidine	47.1	10.0	µg/L	50.0		94.2		10-262			
2,4-Dichlorophenol	39.2	10.0	µg/L	50.0		78.4		39-135			
Diethylphthalate	41.2	10.0	µg/L	50.0		82.4		10-120			
2,4-Dimethylphenol	37.2	10.0	µg/L	50.0		74.4		32-120			
Dimethylphthalate	40.1	10.0	µg/L	50.0		80.3		10-120			
4,6-Dinitro-2-methylphenol	31.1	10.0	µg/L	50.0		62.2		10-181			
2,4-Dinitrophenol	29.8	10.0	µg/L	50.0		59.6		10-191			
2,4-Dinitrotoluene	42.1	10.0	µg/L	50.0		84.1		39-139			
2,6-Dinitrotoluene	42.3	10.0	µg/L	50.0		84.6		50-158			
Di-n-octylphthalate	44.2	10.0	µg/L	50.0		88.5		4-146			
1,2-Diphenylhydrazine/Azobenzene	40.3	10.0	µg/L	50.0		80.5		40-140			
Bis(2-Ethylhexyl)phthalate	42.6	10.0	µg/L	50.0		85.1		8-158			
Fluoranthene	41.5	5.00	µg/L	50.0		83.0		26-137			
Fluorene	41.0	5.00	µg/L	50.0		82.0		59-121			
Hexachlorobenzene	40.9	10.0	µg/L	50.0		81.9		10-152			
Hexachlorobutadiene	30.6	10.0	µg/L	50.0		61.1		24-120			
Hexachlorocyclopentadiene	17.2	10.0	µg/L	50.0		**34.4**	*	40-140			V-05, L-04
Hexachloroethane	25.9	10.0	µg/L	50.0		51.8		40-120			
Isophorone	41.0	10.0	µg/L	50.0		81.9		21-196			
Naphthalene	32.7	5.00	µg/L	50.0		65.4		21-133			
Nitrobenzene	37.5	10.0	µg/L	50.0		75.0		35-180			
2-Nitrophenol	38.2	10.0	µg/L	50.0		76.4		29-182			
4-Nitrophenol	21.9	10.0	µg/L	50.0		43.7		10-132			
N-Nitrosodimethylamine	27.4	10.0	µg/L	50.0		54.7		40-140			V-06
N-Nitrosodiphenylamine/Diphenylamine	40.9	10.0	µg/L	50.0		81.9		40-140			
N-Nitrosodi-n-propylamine	39.9	10.0	µg/L	50.0		79.8		10-230			
2-Methylnaphthalene	40.0	5.00	µg/L	50.0		80.1		40-140			
Phenanthrene	40.1	5.00	µg/L	50.0		80.3		54-120			

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC		%REC Limits	RPD	RPD Limit	Notes
Batch B251104 - SW-846 3510C											
LCS (B251104-BS1)				Prepared: 01/29/20 Analyzed: 01/31/20							
2-Methylphenol	30.7	10.0	µg/L	50.0		61.4		40-140			
Phenol	15.8	10.0	µg/L	50.0		31.5		5-120			
3/4-Methylphenol	30.9	20.0	µg/L	50.0		61.8		40-140			
Pyrene	35.4	5.00	µg/L	50.0		70.7		52-120			
1,2,4-Trichlorobenzene	31.1	5.00	µg/L	50.0		62.2		44-142			
2,4,6-Trichlorophenol	39.1	10.0	µg/L	50.0		78.2		37-144			
Surrogate: 2-Fluorophenol	*97.0*		µg/L	200		48.5		15-110			
Surrogate: Phenol-d6	*71.0*		µg/L	200		35.5		15-110			
Surrogate: Nitrobenzene-d5	*75.9*		µg/L	100		75.9		30-130			
Surrogate: 2-Fluorobiphenyl	*94.7*		µg/L	100		94.7		30-130			
Surrogate: 2,4,6-Tribromophenol	*202*		µg/L	200		101		15-110			
Surrogate: p-Terphenyl-d14	*77.8*		µg/L	100		77.8		30-130			
LCS Dup (B251104-BSD1)				Prepared: 01/29/20 Analyzed: 01/31/20							
Acenaphthene	32.3	5.00	µg/L	50.0		64.7		47-145	15.7	48	
Acenaphthylene	32.0	5.00	µg/L	50.0		64.0		33-145	15.4	74	
Anthracene	35.5	5.00	µg/L	50.0		71.0		27-133	13.9	66	
Benzidine	40.7	20.0	µg/L	50.0		81.4		40-140	11.2	30	V-04, V-05
Benzo(g,h,i)perylene	31.5	5.00	µg/L	50.0		63.0		10-219	12.5	97	
4-Bromophenylphenylether	35.9	10.0	µg/L	50.0		71.8		53-127	11.6	43	
Butylbenzylphthalate	34.4	10.0	µg/L	50.0		68.7		10-152	14.1	60	
4-Chloro-3-methylphenol	34.8	10.0	µg/L	50.0		69.5		22-147	13.2	73	
Bis(2-chloroethyl)ether	32.3	10.0	µg/L	50.0		64.6		12-158	14.0	108	
Bis(2-chloroisopropyl)ether	38.7	10.0	µg/L	50.0		77.5		36-166	11.6	76	
2-Chloronaphthalene	28.6	10.0	µg/L	50.0		**57.2**	*	60-120	11.0	24	L-07
2-Chlorophenol	29.2	10.0	µg/L	50.0		58.3		23-134	12.8	61	
4-Chlorophenylphenylether	34.7	10.0	µg/L	50.0		69.3		25-158	13.3	61	
Di-n-butylphthalate	36.5	10.0	µg/L	50.0		73.0		10-120	11.5	47	
1,3-Dichlorobenzene	20.3	5.00	µg/L	50.0		40.6		10-172	20.7	30	
1,4-Dichlorobenzene	20.9	5.00	µg/L	50.0		41.8		20-124	20.9	30	
1,2-Dichlorobenzene	21.4	5.00	µg/L	50.0		42.8		32-129	18.8	30	
3,3-Dichlorobenzidine	42.3	10.0	µg/L	50.0		84.7		10-262	10.6	108	
2,4-Dichlorophenol	35.1	10.0	µg/L	50.0		70.2		39-135	11.1	50	
Diethylphthalate	35.1	10.0	µg/L	50.0		70.1		10-120	16.1	100	
2,4-Dimethylphenol	33.2	10.0	µg/L	50.0		66.4		32-120	11.4	58	
Dimethylphthalate	34.5	10.0	µg/L	50.0		69.0		10-120	15.1	183	
4,6-Dinitro-2-methylphenol	26.2	10.0	µg/L	50.0		52.4		10-181	17.2	203	
2,4-Dinitrophenol	24.9	10.0	µg/L	50.0		49.8		10-191	18.0	132	
2,4-Dinitrotoluene	35.2	10.0	µg/L	50.0		70.4		39-139	17.8	42	
2,6-Dinitrotoluene	36.7	10.0	µg/L	50.0		73.5		50-158	14.1	48	
Di-n-octylphthalate	38.5	10.0	µg/L	50.0		77.0		4-146	13.8	69	
1,2-Diphenylhydrazine/Azobenzene	35.8	10.0	µg/L	50.0		71.7		40-140	11.6	30	
Bis(2-Ethylhexyl)phthalate	36.5	10.0	µg/L	50.0		73.1		8-158	15.2	82	
Fluoranthene	36.9	5.00	µg/L	50.0		73.9		26-137	11.7	66	
Fluorene	34.9	5.00	µg/L	50.0		69.8		59-121	16.1	38	
Hexachlorobenzene	36.9	10.0	µg/L	50.0		73.9		10-152	10.3	55	
Hexachlorobutadiene	24.4	10.0	µg/L	50.0		48.8		24-120	22.3	62	
Hexachlorocyclopentadiene	13.2	10.0	µg/L	50.0		**26.4**	*	40-140	26.4	30	L-04, V-05
Hexachloroethane	20.3	10.0	µg/L	50.0		40.7		40-120	24.1	52	
Isophorone	37.1	10.0	µg/L	50.0		74.1		21-196	10.0	93	
Naphthalene	28.4	5.00	µg/L	50.0		56.9		21-133	13.8	65	
Nitrobenzene	33.0	10.0	µg/L	50.0		66.1		35-180	12.6	62	

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QUALITY CONTROL

Semivolatile Organic Compounds by - GC/MS - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251104 - SW-846 3510C										
LCS Dup (B251104-BSD1)				Prepared: 01/29/20 Analyzed: 01/31/20						
2-Nitrophenol	34.3	10.0	µg/L	50.0		68.6	29-182	10.7	55	
4-Nitrophenol	17.8	10.0	µg/L	50.0		35.6	10-132	20.4	131	
N-Nitrosodimethylamine	22.2	10.0	µg/L	50.0		44.3	40-140	21.0	30	V-06
N-Nitrosodiphenylamine/Diphenylamine	36.0	10.0	µg/L	50.0		71.9	40-140	12.9	30	
N-Nitrosodi-n-propylamine	35.9	10.0	µg/L	50.0		71.8	10-230	10.6	87	
2-Methylnaphthalene	34.6	5.00	µg/L	50.0		69.2	40-140	14.6	30	
Phenanthrene	35.6	5.00	µg/L	50.0		71.3	54-120	11.9	39	
2-Methylphenol	26.9	10.0	µg/L	50.0		53.8	40-140	13.1	30	
Phenol	13.8	10.0	µg/L	50.0		27.6	5-120	13.2	64	
3/4-Methylphenol	27.9	20.0	µg/L	50.0		55.8	40-140	10.2	30	
Pyrene	30.6	5.00	µg/L	50.0		61.3	52-120	14.3	49	
1,2,4-Trichlorobenzene	26.1	5.00	µg/L	50.0		52.2	44-142	17.6	50	
2,4,6-Trichlorophenol	33.9	10.0	µg/L	50.0		67.9	37-144	14.2	58	
Surrogate: 2-Fluorophenol	*84.7*		µg/L	200		42.3	15-110			
Surrogate: Phenol-d6	*63.8*		µg/L	200		31.9	15-110			
Surrogate: Nitrobenzene-d5	*68.5*		µg/L	100		68.5	30-130			
Surrogate: 2-Fluorobiphenyl	*83.6*		µg/L	100		83.6	30-130			
Surrogate: 2,4,6-Tribromophenol	*180*		µg/L	200		90.1	15-110			
Surrogate: p-Terphenyl-d14	*70.4*		µg/L	100		70.4	30-130			

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QUALITY CONTROL

Polychlorinated Biphenyls By GC/ECD - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251166 - SW-846 3510C										
Blank (B251166-BLK1)				Prepared: 01/30/20 Analyzed: 01/31/20						
Aroclor-1016	ND	0.100	µg/L							
Aroclor-1016 [2C]	ND	0.100	µg/L							
Aroclor-1221	ND	0.100	µg/L							
Aroclor-1221 [2C]	ND	0.100	µg/L							
Aroclor-1232	ND	0.100	µg/L							
Aroclor-1232 [2C]	ND	0.100	µg/L							
Aroclor-1242	ND	0.100	µg/L							
Aroclor-1242 [2C]	ND	0.100	µg/L							
Aroclor-1248	ND	0.100	µg/L							
Aroclor-1248 [2C]	ND	0.100	µg/L							
Aroclor-1254	ND	0.100	µg/L							
Aroclor-1254 [2C]	ND	0.100	µg/L							
Aroclor-1260	ND	0.100	µg/L							
Aroclor-1260 [2C]	ND	0.100	µg/L							
Surrogate: Decachlorobiphenyl	*0.765*		µg/L	1.00		76.5	30-150			
Surrogate: Decachlorobiphenyl [2C]	*0.879*		µg/L	1.00		87.9	30-150			
Surrogate: Tetrachloro-m-xylene	*0.748*		µg/L	1.00		74.8	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*0.888*		µg/L	1.00		88.8	30-150			
LCS (B251166-BS1)				Prepared: 01/30/20 Analyzed: 01/31/20						
Aroclor-1016	0.330	0.200	µg/L	0.500		66.1	50-140			
Aroclor-1016 [2C]	0.368	0.200	µg/L	0.500		73.7	50-140			
Aroclor-1260	0.358	0.200	µg/L	0.500		71.7	8-140			
Aroclor-1260 [2C]	0.375	0.200	µg/L	0.500		75.1	8-140			
Surrogate: Decachlorobiphenyl	*1.32*		µg/L	2.00		66.2	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.51*		µg/L	2.00		75.6	30-150			
Surrogate: Tetrachloro-m-xylene	*1.19*		µg/L	2.00		59.7	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.44*		µg/L	2.00		72.0	30-150			
LCS Dup (B251166-BSD1)				Prepared: 01/30/20 Analyzed: 01/31/20						
Aroclor-1016	0.329	0.200	µg/L	0.500		65.8	50-140	0.419		
Aroclor-1016 [2C]	0.359	0.200	µg/L	0.500		71.8	50-140	2.58		
Aroclor-1260	0.341	0.200	µg/L	0.500		68.2	8-140	5.01		
Aroclor-1260 [2C]	0.369	0.200	µg/L	0.500		73.8	8-140	1.71		
Surrogate: Decachlorobiphenyl	*1.32*		µg/L	2.00		65.9	30-150			
Surrogate: Decachlorobiphenyl [2C]	*1.52*		µg/L	2.00		75.9	30-150			
Surrogate: Tetrachloro-m-xylene	*1.21*		µg/L	2.00		60.3	30-150			
Surrogate: Tetrachloro-m-xylene [2C]	*1.45*		µg/L	2.00		72.6	30-150			

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QUALITY CONTROL

Petroleum Hydrocarbons Analyses - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251296 - SW-846 3510C										
Blank (B251296-BLK1)				Prepared: 01/31/20 Analyzed: 02/02/20						
TPH (C9-C36)	ND	0.20	mg/L							
Surrogate: 2-Fluorobiphenyl	*0.0734*		mg/L	0.100		73.4	40-140			
LCS (B251296-BS1)				Prepared: 01/31/20 Analyzed: 02/02/20						
TPH (C9-C36)	0.668	0.20	mg/L	1.00		66.8	40-140			
Surrogate: 2-Fluorobiphenyl	*0.0721*		mg/L	0.100		72.1	40-140			
LCS Dup (B251296-BSD1)				Prepared: 01/31/20 Analyzed: 02/02/20						
TPH (C9-C36)	0.680	0.20	mg/L	1.00		68.0	40-140	1.80	30	
Surrogate: 2-Fluorobiphenyl	*0.0764*		mg/L	0.100		76.4	40-140			

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251088 - EPA 245.1										
Blank (B251088-BLK1)				Prepared: 01/29/20 Analyzed: 01/30/20						
Mercury	ND	0.00010	mg/L							
LCS (B251088-BS1)				Prepared: 01/29/20 Analyzed: 01/30/20						
Mercury	0.00393	0.00010	mg/L	0.00400		98.4	85-115			
LCS Dup (B251088-BSD1)				Prepared: 01/29/20 Analyzed: 01/30/20						
Mercury	0.00390	0.00010	mg/L	0.00400		97.5	85-115	0.899	20	
Batch B251090 - EPA 200.8										
Blank (B251090-BLK1)				Prepared & Analyzed: 01/29/20						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Cadmium	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							
Silver	ND	0.20	µg/L							
Zinc	ND	10	µg/L							
LCS (B251090-BS1)				Prepared & Analyzed: 01/29/20						
Antimony	520	10	µg/L	500		104	85-115			
Arsenic	512	8.0	µg/L	500		102	85-115			
Cadmium	521	2.0	µg/L	500		104	85-115			
Chromium	504	10	µg/L	500		101	85-115			
Copper	988	10	µg/L	1000		98.8	85-115			
Lead	512	5.0	µg/L	500		102	85-115			
Nickel	500	50	µg/L	500		100	85-115			
Silver	495	2.0	µg/L	500		98.9	85-115			
Zinc	950	100	µg/L	1000		95.0	85-115			
LCS Dup (B251090-BSD1)				Prepared & Analyzed: 01/29/20						
Antimony	523	10	µg/L	500		105	85-115	0.607	20	
Arsenic	510	8.0	µg/L	500		102	85-115	0.232	20	
Cadmium	522	2.0	µg/L	500		104	85-115	0.304	20	
Chromium	507	10	µg/L	500		101	85-115	0.518	20	
Copper	985	10	µg/L	1000		98.5	85-115	0.308	20	
Lead	516	5.0	µg/L	500		103	85-115	0.845	20	
Nickel	498	50	µg/L	500		99.7	85-115	0.425	20	
Silver	496	2.0	µg/L	500		99.2	85-115	0.302	20	
Zinc	959	100	µg/L	1000		95.9	85-115	0.980	20	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251091 - EPA 200.7										
Blank (B251091-BLK1)				Prepared & Analyzed: 01/29/20						
Iron	ND	0.050	mg/L							
Hardness	0.043		mg/L							
LCS (B251091-BS1)				Prepared & Analyzed: 01/29/20						
Iron	4.02	0.050	mg/L	4.00		101	85-115			
Hardness	26		mg/L	26.5		99.7	85-115			B
LCS Dup (B251091-BSD1)				Prepared & Analyzed: 01/29/20						
Iron	4.05	0.050	mg/L	4.00		101	85-115	0.551	20	
Hardness	26		mg/L	26.5		100	85-115	0.430	20	B

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B250957 - SM21-22 3500 Cr B										
Blank (B250957-BLK1)				Prepared & Analyzed: 01/27/20						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B250957-BS1)				Prepared & Analyzed: 01/27/20						
Hexavalent Chromium	0.091	0.0040	mg/L	0.100		91.4	83.9-121			
LCS Dup (B250957-BSD1)				Prepared & Analyzed: 01/27/20						
Hexavalent Chromium	0.093	0.0040	mg/L	0.100		93.0	83.9-121	1.70	10	
Batch B250959 - SM21-22 4500 CL G										
Blank (B250959-BLK1)				Prepared & Analyzed: 01/27/20						
Chlorine, Residual	ND	0.020	mg/L							
LCS (B250959-BS1)				Prepared & Analyzed: 01/27/20						
Chlorine, Residual	1.2	0.020	mg/L	1.28		94.6	66.3-134			
LCS Dup (B250959-BSD1)				Prepared & Analyzed: 01/27/20						
Chlorine, Residual	1.2	0.020	mg/L	1.28		95.3	66.3-134	0.712	9.96	
Duplicate (B250959-DUP1)		**Source: 20A1173-01**		Prepared & Analyzed: 01/27/20						
Chlorine, Residual	ND	0.020	mg/L		ND			NC	32.5	
Matrix Spike (B250959-MS1)		**Source: 20A1173-01**		Prepared & Analyzed: 01/27/20						
Chlorine, Residual	0.53	0.020	mg/L	1.00	ND	52.7	10-167			
Batch B250973 - SM21-22 2540D										
Blank (B250973-BLK1)				Prepared & Analyzed: 01/28/20						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B250973-BS1)				Prepared & Analyzed: 01/28/20						
Total Suspended Solids	176	10	mg/L	200		88.0	57.6-118			

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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 B251234 - EPA 504 water										
Blank (B251234-BLK1)				Prepared & Analyzed: 01/30/20						
1,2-Dibromoethane (EDB)	ND	0.020	µg/L							
Surrogate: 1,3-Dibromopropane	*1.16*		µg/L	1.02		114	70-130			
LCS (B251234-BS1)				Prepared & Analyzed: 01/30/20						
1,2-Dibromoethane (EDB)	0.171	0.021	µg/L	0.181		94.3	70-130			
Surrogate: 1,3-Dibromopropane	*0.995*		µg/L	1.04		96.0	70-130			
LCS Dup (B251234-BSD1)				Prepared & Analyzed: 01/30/20						
1,2-Dibromoethane (EDB)	0.176	0.021	µg/L	0.181		97.1	70-130	2.69		
Surrogate: 1,3-Dibromopropane	*1.05*		µg/L	1.03		102	70-130			
MRL Check (B251234-MRL1)				Prepared & Analyzed: 01/30/20						
1,2-Dibromoethane (EDB)	0.0205	0.021	µg/L	0.0205		100	0-200			
1,2-Dibromoethane (EDB) [2C]	0.0185	0.021	µg/L	0.0205		90.0	0-200			J
Surrogate: 1,3-Dibromopropane	*1.03*		µg/L	1.03		101	70-130			
Surrogate: 1,3-Dibromopropane [2C]	*1.06*		µg/L	1.03		103	70-130			
MRL Check (B251234-MRL2)				Prepared & Analyzed: 01/30/20						
1,2-Dibromoethane (EDB)	0.0209	0.021	µg/L	0.0209		100	0-200			
1,2-Dibromoethane (EDB) [2C]	0.0167	0.021	µg/L	0.0209		80.0	0-200			J
Surrogate: 1,3-Dibromopropane	*1.07*		µg/L	1.04		102	70-130			
Surrogate: 1,3-Dibromopropane [2C]	*1.09*		µg/L	1.04		105	70-130			

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

608.3

LCS

Lab Sample ID: B251166-BS1 Date(s) Analyzed: 01/31/2020 01/31/2020

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

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

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.330	
	2	0.000	0.000	0.000	0.368	10.9
Aroclor-1260	1	0.000	0.000	0.000	0.358	
	2	0.000	0.000	0.000	0.375	4.1

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

608.3

LCS Dup

Lab Sample ID: B251166-BSD1 Date(s) Analyzed: 01/31/2020 01/31/2020

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

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

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
Aroclor-1016	1	0.000	0.000	0.000	0.329	
	2	0.000	0.000	0.000	0.359	8.4
Aroclor-1260	1	0.000	0.000	0.000	0.341	
	2	0.000	0.000	0.000	0.369	8.2

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

EPA 504.1

LCS

Lab Sample ID: B251234-BS1 Date(s) Analyzed: 01/30/2020 01/30/2020

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

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

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
1,2-Dibromoethane (EDB)	1	3.278	0.000	0.000	0.171	

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IDENTIFICATION SUMMARY FOR SINGLE COMPONENT ANALYTES

EPA 504.1

LCS Dup

Lab Sample ID: B251234-BSD1 Date(s) Analyzed: 01/30/2020 01/30/2020

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

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

ANALYTE	COL	RT	RT WINDOW		CONCENTRATION	%RPD
			FROM	TO		
1,2-Dibromoethane (EDB)	1	3.280	0.000	0.000	0.176	

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
B	Analyte is found in the associated laboratory blank as well as in the sample.
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.
L-03	Laboratory fortified blank/laboratory control sample recovery is outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-04	Laboratory fortified blank/laboratory control sample recovery and duplicate recovery are outside of control limits. Reported value for this compound is likely to be biased on the low side.
L-07	Either laboratory fortified blank/laboratory control sample or duplicate recovery is outside of control limits, but the other is within limits. RPD between the two LFB/LCS results is within method specified criteria.
V-04	Initial calibration did not meet method specifications. Compound was calibrated using a response factor where %RSD is outside of method specified criteria. Reported result is estimated.
V-05	Continuing calibration verification (CCV) did not meet method specifications and was biased on the low side for this compound.
V-06	Continuing calibration verification (CCV) did not meet method specifications and was biased on the high side for this compound.

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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	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	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

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
624.1 in Water	
Toluene	CT,NY,MA,NH,RI,NC,ME,VA
1,2,4-Trichlorobenzene	MA,NC
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
Benzidine	CT,MA,NH,NY,NC,RI,ME,VA
Benzo(g,h,i)perylene	CT,MA,NH,NY,NC,RI,ME,VA
4-Bromophenylphenylether	CT,MA,NH,NY,NC,RI,ME,VA
Butylbenzylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4-Chloro-3-methylphenol	CT,MA,NH,NY,NC,RI,VA
Bis(2-chloroethyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
Bis(2-chloroisopropyl)ether	CT,MA,NH,NY,NC,RI,ME,VA
2-Chloronaphthalene	CT,MA,NH,NY,NC,RI,ME,VA
2-Chlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Chlorophenylphenylether	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
3,3-Dichlorobenzidine	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dichlorophenol	CT,MA,NH,NY,NC,RI,ME,VA
Diethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dimethylphenol	CT,MA,NH,NY,NC,RI,ME,VA
Dimethylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
4,6-Dinitro-2-methylphenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
2,4-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
2,6-Dinitrotoluene	CT,MA,NH,NY,NC,RI,ME,VA
Di-n-octylphthalate	CT,MA,NH,NY,NC,RI,ME,VA
1,2-Diphenylhydrazine/Azobenzene	NC
Fluoranthene	CT,MA,NH,NY,NC,RI,ME,VA
Fluorene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorobutadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachlorocyclopentadiene	CT,MA,NH,NY,NC,RI,ME,VA
Hexachloroethane	CT,MA,NH,NY,NC,RI,ME,VA
Isophorone	CT,MA,NH,NY,NC,RI,ME,VA
Naphthalene	CT,MA,NH,NY,NC,RI,ME,VA

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
625.1 in Water	
Nitrobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
4-Nitrophenol	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodimethylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodiphenylamine	CT,MA,NH,NY,NC,RI,ME,VA
N-Nitrosodi-n-propylamine	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylnaphthalene	NC
Phenanthrene	CT,MA,NH,NY,NC,RI,ME,VA
2-Methylphenol	NY,NC
Phenol	CT,MA,NH,NY,NC,RI,ME,VA
3/4-Methylphenol	NY,NC
Pyrene	CT,MA,NH,NY,NC,RI,ME,VA
1,2,4-Trichlorobenzene	CT,MA,NH,NY,NC,RI,ME,VA
2,4,6-Trichlorophenol	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
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
EPA 245.1 in Water	
Mercury	CT,MA,NH,RI,NY,NC,ME,VA
SM19-22 4500 NH3 C in Water	
Ammonia as N	NY,MA,CT,RI,VA,NC,ME
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 3500 Cr B in Water	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
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

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

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

con-test ANALYTICAL LABORATORY

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CHAIN OF CUSTODY RECORD
Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

KKM

Company Name: LRT
Address: 89 Crawford Street Leominster MA
Phone: 774-450-7177

Project Name: Melrose YMCA
Project Location: 497 Main Streck, Melrose, MA
Project Number: 2-1990
Project Manager: Brian Caccavale
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: Brian Caccavale

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date: 5 Day

Rush-Approval Required
1-Day ☐ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: Bcaccvale@lrt-llc.net
jjennings@lrt-llc.net

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code
1	Influent	1/27/2020	1130		X	GW	U
2	Receiving Water	1/27/2020	1300		X	GW	L

# of Containers	1	1	1	3	2	2	2	3	1	1	1	1	1
[2] Preservation Code	S	I	X	H	I	I	I	T	I	N	I	N	S
[3] Container Code	P	P	P	V	A	A	A	V	P	P	P	P	P

ANALYSIS REQUESTED

Ammonia	TRC	Cyanide	VOCs	Semi Vocs	PCBs	TPH	EDB	TSS	Total (As,Ag,Cd,Cr,Cu,Fe,Hg,Ni,Pb,Sb,Zn)	Chromium VI	Hardness	Ammonia
X	X	X	X	X	X	X	X					
								X	X	X	X	X

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments: Samples for an NPDES RGP.

Run TPH by 8100 for sample -01 and run Cr III for sample -02 per Brian C. -KKM 1/30/2020

pH: 6.96 (Influ), 6.94 (Recv Water)

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Relinquished by: (signature)	Date/Time: 1/27/2020 1430	
Received by: (signature) LRT Sample Room	Date/Time: 1/27/2020 1430	
Relinquished by: (signature)	Date/Time: 1/27/2020 1530	
Received by: (signature) 1/27/2020	Date/Time: 330	
Relinquished by: (signature) 1/27/2020	Date/Time: 530	
Received by: (signature) 5.3 1730	Date/Time: 1-27-2020	

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

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Other
☐ Chromatogram
☐ AIHA-LAP,LLC

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

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

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client LRT

Received By LR Date 1-27-2020 Time 1730

How were the samples received? In Cooler T No Cooler _____ On Ice T No Ice _____

Direct from Sampling _____ Ambient _____ Melted Ice _____

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 5.3

By Blank # _____ Actual Temp - _____

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

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

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

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

Did COC include all pertinent Information? Client T Analysis T Sampler Name T

Project T ID's T Collection Dates/Times T

Are Sample labels filled out and legible? T

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

Are there Rushes? ~~R~~ F Who was notified? ~~Dana~~ LR

Are there Short Holds? T Who was notified? Dana

Is there enough Volume? T

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

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

Were trip blanks received? F On COC? F

Do all samples have the proper pH? Acid T Base T

Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.	6	1 Liter Plastic	1	16 oz Amb.	
HCL-	6	500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	9	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic Bag		Frozen:	
Sulfuric-		Perchlorate		Ziplock			

Unused Media

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

Comments:

NO H_2SO_4 Aqumbers received for TPH

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

February 5, 2020

Brian Caccavale
Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453

Project Location: Melrose YMCA
Client Job Number:
Project Number: 2-1990
Laboratory Work Order Number: 20B0103

Enclosed are results of analyses for samples received by the laboratory on February 3, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerry K. McGee
Project Manager

Table of Contents

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

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
ATTN: Brian Caccavale

REPORT DATE: 2/5/2020

PURCHASE ORDER NUMBER: 2-1990

PROJECT NUMBER: 2-1990

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20B0103

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

PROJECT LOCATION: Melrose YMCA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
Influent	20B0103-01	Ground Water		EPA 200.7 EPA 200.8 EPA 245.1	

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

CASE NARRATIVE SUMMARY

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

REVISED REPORT - 2/5/2020 - Se results reported for sample 20B0103-01 per client's request.

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

Lisa A. Worthington
Technical Representative

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

Project Location: Melrose YMCA | Sample Description: | Work Order: 20B0103

Date Received: 2/3/2020

Field Sample #: Influent | Sampled: 1/27/2020 11:30

Sample ID: 20B0103-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Arsenic	ND	0.80		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Cadmium	1.4	0.20		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Chromium	1.3	1.0		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Copper	19	1.0		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Iron	0.24	0.050		mg/L	1		EPA 200.7	2/4/20	2/4/20 15:00	TBC
Lead	ND	0.50		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Mercury	ND	0.00010		mg/L	1		EPA 245.1	2/4/20	2/4/20 13:02	CJV
Nickel	9.4	5.0		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Selenium	3.3	5.0	1.6	µg/L	1	J	EPA 200.8	2/4/20	2/4/20 14:36	QNW
Silver	ND	0.20		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW
Zinc	12	10		µg/L	1		EPA 200.8	2/4/20	2/4/20 14:36	QNW

con-test® ANALYTICAL LABORATORY
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Sample Extraction Data

Prep Method: EPA 200.7-EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20B0103-01 [Influent]	B251498	25.0	25.0	02/04/20

Prep Method: EPA 200.8-EPA 200.8

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20B0103-01 [Influent]	B251490	25.0	25.0	02/04/20

Prep Method: EPA 245.1-EPA 245.1

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20B0103-01 [Influent]	B251472	6.00	6.00	02/04/20

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

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251472 - EPA 245.1										
Blank (B251472-BLK1)				Prepared & Analyzed: 02/04/20						
Mercury	ND	0.00010	mg/L							
LCS (B251472-BS1)				Prepared & Analyzed: 02/04/20						
Mercury	0.00392	0.00010	mg/L	0.00400		98.0	85-115			
LCS Dup (B251472-BSD1)				Prepared & Analyzed: 02/04/20						
Mercury	0.00389	0.00010	mg/L	0.00400		97.2	85-115	0.855	20	
Batch B251490 - EPA 200.8										
Blank (B251490-BLK1)				Prepared & Analyzed: 02/04/20						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Cadmium	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							
Selenium	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	10	µg/L							
LCS (B251490-BS1)				Prepared & Analyzed: 02/04/20						
Antimony	499	10	µg/L	500		99.8	85-115			
Arsenic	508	8.0	µg/L	500		102	85-115			
Cadmium	513	2.0	µg/L	500		103	85-115			
Chromium	507	10	µg/L	500		101	85-115			
Copper	998	10	µg/L	1000		99.8	85-115			
Lead	500	5.0	µg/L	500		100	85-115			
Nickel	520	50	µg/L	500		104	85-115			
Selenium	509	50	µg/L	500		102	85-115			
Silver	476	2.0	µg/L	500		95.3	85-115			
Zinc	1020	100	µg/L	1000		102	85-115			
LCS Dup (B251490-BSD1)				Prepared & Analyzed: 02/04/20						
Antimony	506	10	µg/L	500		101	85-115	1.42	20	
Arsenic	513	8.0	µg/L	500		103	85-115	0.954	20	
Cadmium	522	2.0	µg/L	500		104	85-115	1.82	20	
Chromium	501	10	µg/L	500		100	85-115	1.30	20	
Copper	1010	10	µg/L	1000		101	85-115	0.883	20	
Lead	508	5.0	µg/L	500		102	85-115	1.61	20	
Nickel	525	50	µg/L	500		105	85-115	0.874	20	
Selenium	522	50	µg/L	500		104	85-115	2.41	20	
Silver	485	2.0	µg/L	500		97.1	85-115	1.87	20	
Zinc	1040	100	µg/L	1000		104	85-115	1.43	20	

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

QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251490 - EPA 200.8										
Duplicate (B251490-DUP1)		**Source: 20B0103-01**		Prepared & Analyzed: 02/04/20						
Antimony	ND	1.0	µg/L		ND			NC	20	
Arsenic	ND	0.80	µg/L		ND			NC	20	
Cadmium	1.45	0.20	µg/L		1.45			0.0153	20	
Chromium	1.25	1.0	µg/L		1.31			4.40	20	
Copper	19.2	1.0	µg/L		18.8			2.04	20	
Lead	ND	0.50	µg/L		ND			NC	20	
Nickel	9.55	5.0	µg/L		9.45			1.12	20	
Selenium	3.39	5.0	µg/L		3.28			3.54	20	J
Silver	ND	0.20	µg/L		ND			NC	20	
Zinc	11.4	10	µg/L		11.7			2.57	20	
Matrix Spike (B251490-MS1)		**Source: 20B0103-01**		Prepared & Analyzed: 02/04/20						
Antimony	532	10	µg/L	500	ND	106	70-130			
Arsenic	547	8.0	µg/L	500	ND	109	70-130			
Cadmium	534	2.0	µg/L	500	1.45	107	70-130			
Chromium	531	10	µg/L	500	ND	106	70-130			
Copper	1030	10	µg/L	1000	18.8	101	70-130			
Lead	542	5.0	µg/L	500	ND	108	70-130			
Nickel	551	50	µg/L	500	9.45	108	70-130			
Selenium	547	50	µg/L	500	ND	109	70-130			
Silver	471	2.0	µg/L	500	ND	94.2	70-130			
Zinc	1060	100	µg/L	1000	ND	106	70-130			
Batch B251498 - EPA 200.7										
Blank (B251498-BLK1)				Prepared & Analyzed: 02/04/20						
Iron	ND	0.050	mg/L							
LCS (B251498-BS1)				Prepared & Analyzed: 02/04/20						
Iron	3.87	0.050	mg/L	4.00		96.8	85-115			
LCS Dup (B251498-BSD1)				Prepared & Analyzed: 02/04/20						
Iron	3.92	0.050	mg/L	4.00		98.1	85-115	1.31	20	
Duplicate (B251498-DUP1)		**Source: 20B0103-01**		Prepared & Analyzed: 02/04/20						
Iron	0.231	0.050	mg/L		0.239			3.56	20	
Matrix Spike (B251498-MS1)		**Source: 20B0103-01**		Prepared & Analyzed: 02/04/20						
Iron	4.14	0.050	mg/L	4.00	0.239	97.4	70-130			

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FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
J	Detected but below the Reporting Limit (lowest calibration standard); therefore, result is an estimated concentration (CLP J-Flag).

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
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
Selenium	CT,MA,NH,NY,RI,NC,ME,VA
Silver	CT,MA,NH,NY,RI,NC,ME,VA
Zinc	CT,MA,NH,NY,RI,NC,ME,VA
EPA 245.1 in Water	
Mercury	CT,MA,NH,RI,NY,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	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
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	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
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	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

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

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Page _____ of _____

KKm 20B0103

Company Name: LRT
Address: 89 Crawford Street Leominster MA
Phone: 774-450-7177
Project Name: Melrose YMCA
Project Location:
Project Number: 2-1990
Project Manager: Brian Caccavale
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By:

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☑ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: Bcaccvale@lrt-llc.net
jjennings@lrt-llc.net

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	Total (As,Ag,Cd,Cr,Cu,Fe,Hg,Ni,Pb,Sb,Zn)	1	I	P	# of Containers	[2] Preservation Code	[3] Container Code
1	Influent	1/27	11:30		X	GW	U	X						

ANALYSIS REQUESTED

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Comments: Samples for an NPDES RGP.

pH: N/A

Please use the following codes to indicate possible sample concentration within the Conc Code column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

	Date/Time:
Relinquished by: (signature)	2/3 2:30
Received by: (signature)	2/3/20 234
Relinquished by: (signature)	2/3/20 745
Received by: (signature)	2.3.2020 1645
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

con-test ANALYTICAL LABORATORY
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NELAC and AIHA-LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

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

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client URT

Received By LR Date 2-3-2020 Time 1945

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

Were samples within Temperature? 2-6°C T By Gun # 2 Actual Temp - 4.1
By Blank # _____ Actual Temp - _____

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

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

Unused Media

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

Comments:

con-test ANALYTICAL LABORATORY

20B0103

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

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Doc # 381 Rev 1_03242017

CHAIN OF CUSTODY RECORD

39 Spruce Street
East Longmeadow, MA 01028

Page _____ of _____

Company Name: LRT
Address: 89 Crawford Street Leominster MA
Phone: 774-450-7177
Project Name: Melrose YMCA
Project Location:
Project Number: 2-1990
Project Manager: Brian Caccavale
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By:

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☑ 3-Day ☐
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: Bcaccvale@lrt-llc.net
jjennings@lrt-llc.net

ANALYSIS REQUESTED

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	Total Se												# of Containers	[2] Preservation Code	[3] Container Code
01	Influent				X	GW	U	X												1	I	N

Comments: Samples for an NPDES RGP.

pH:

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

[1] Matrix Codes:
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] Preservation Codes:
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] Container Codes:
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:
Relinquished by: (signature)	Date/Time:
Received by: (signature)	Date/Time:

Detection Limit Requirements
MA:
CT:
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

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

January 30, 2020

Brian Caccavale
Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453

Project Location: 497 Main St., Melrose, MA
Client Job Number:
Project Number: 2-1990
Laboratory Work Order Number: 20A1174

Enclosed are results of analyses for samples received by the laboratory on January 27, 2020. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kerry K. McGee
Project Manager

Table of Contents

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

Lockwood Remediation Technologies, LLC
89 Crawford Street
Leominster, MA 01453
ATTN: Brian Caccavale

REPORT DATE: 1/30/2020

PURCHASE ORDER NUMBER: 2-1990

PROJECT NUMBER: 2-1990

ANALYTICAL SUMMARY

WORK ORDER NUMBER: 20A1174

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

PROJECT LOCATION: 497 Main St., Melrose, MA

FIELD SAMPLE #	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
S1	20A1174-01	Ground Water		EPA 300.0	
				SM21-22 2540D	
				SM21-22 3500 Cr B	
				SW-846 6010	
				SW-846 6010D	
				SW-846 6020B	
				SW-846 7470A	

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CASE NARRATIVE SUMMARY

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

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

Lisa A. Worthington
Technical Representative

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1174

Date Received: 1/27/2020

Field Sample #: S1 | Sampled: 1/27/2020 11:30

Sample ID: 20A1174-01

Sample Matrix: Ground Water

Metals Analyses (Total)

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Antimony	ND	1.0	0.35	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Arsenic	ND	0.80	0.64	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Cadmium	1.5	0.20	0.038	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Chromium	0.63	1.0	0.24	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Copper	36	1.0	0.87	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Iron	0.53	0.050	0.043	mg/L	1		SW-846 6010D	1/28/20	1/28/20 23:21	TBC
Lead	ND	0.50	0.085	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Mercury	ND	0.00010	0.000034	mg/L	1		SW-846 7470A	1/29/20	1/29/20 12:20	CJV
Nickel	6.0	5.0	0.62	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Silver	ND	0.20	0.18	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Zinc	13	10	2.3	µg/L	1		SW-846 6020B	1/28/20	1/28/20 14:30	MJH
Hardness	440			mg/L	5		SW-846 6010	1/28/20	1/29/20 15:26	MJH

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

Project Location: 497 Main St., Melrose, MA | Sample Description: | Work Order: 20A1174

Date Received: 1/27/2020

Field Sample #: S1 | Sampled: 1/27/2020 11:30

Sample ID: 20A1174-01

Sample Matrix: Ground Water

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

Analyte	Results	RL	DL	Units	Dilution	Flag/Qual	Method	Date Prepared	Date/Time Analyzed	Analyst
Chloride	1900	50	15	mg/L	50		EPA 300.0	1/29/20	1/29/20 14:59	IS
Hexavalent Chromium	ND	0.0040		mg/L	1		SM21-22 3500 Cr B	1/27/20	1/27/20 20:20	KMV
Total Suspended Solids	3.0	1.0		mg/L	1		SM21-22 2540D	1/28/20	1/28/20 12:00	LL

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

Sample Extraction Data

Prep Method: EPA 300.0-EPA 300.0

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1174-01 [S1]	B251065	10.0	10.0	01/29/20

SM21-22 2540D

Lab Number [Field ID]	Batch	Initial [mL]	Date
20A1174-01 [S1]	B250973	500	01/28/20

SM21-22 3500 Cr B

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1174-01 [S1]	B250957	50.0	50.0	01/27/20

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

Lab Number [Field ID]	Batch	Initial [mL]	Date
20A1174-01 [S1]	B250985	50.0	01/28/20

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1174-01 [S1]	B250985	50.0	50.0	01/28/20

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1174-01 [S1]	B250988	50.0	50.0	01/28/20

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

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date
20A1174-01 [S1]	B251073	6.00	6.00	01/29/20

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B250985 - SW-846 3005A										
Blank (B250985-BLK1)				Prepared & Analyzed: 01/28/20						
Iron	ND	0.050	mg/L							
LCS (B250985-BS1)				Prepared & Analyzed: 01/28/20						
Iron	3.94	0.050	mg/L	4.00		98.4	80-120			
LCS Dup (B250985-BSD1)				Prepared & Analyzed: 01/28/20						
Iron	3.87	0.050	mg/L	4.00		96.7	80-120	1.71	20	
Batch B250988 - SW-846 3005A										
Blank (B250988-BLK1)				Prepared & Analyzed: 01/28/20						
Antimony	ND	1.0	µg/L							
Arsenic	ND	0.80	µg/L							
Cadmium	ND	0.20	µg/L							
Chromium	0.43	1.0	µg/L							
Copper	ND	1.0	µg/L							
Lead	ND	0.50	µg/L							
Nickel	ND	5.0	µg/L							
Silver	ND	0.20	µg/L							
Zinc	ND	10	µg/L							
LCS (B250988-BS1)				Prepared & Analyzed: 01/28/20						
Antimony	497	10	µg/L	500		99.3	80-120			
Arsenic	522	8.0	µg/L	500		104	80-120			
Cadmium	507	2.0	µg/L	500		101	80-120			
Chromium	496	10	µg/L	500		99.3	80-120			
Copper	978	10	µg/L	1000		97.8	80-120			
Lead	489	5.0	µg/L	500		97.8	80-120			
Nickel	510	50	µg/L	500		102	80-120			
Silver	494	2.0	µg/L	500		98.8	80-120			
Zinc	1010	100	µg/L	1000		101	80-120			
LCS Dup (B250988-BSD1)				Prepared & Analyzed: 01/28/20						
Antimony	488	10	µg/L	500		97.6	80-120	1.78	20	
Arsenic	514	8.0	µg/L	500		103	80-120	1.52	20	
Cadmium	500	2.0	µg/L	500		100	80-120	1.36	20	
Chromium	495	10	µg/L	500		99.0	80-120	0.316	20	
Copper	966	10	µg/L	1000		96.6	80-120	1.19	20	
Lead	487	5.0	µg/L	500		97.3	80-120	0.465	20	
Nickel	505	50	µg/L	500		101	80-120	1.02	20	
Silver	491	2.0	µg/L	500		98.2	80-120	0.675	20	
Zinc	992	100	µg/L	1000		99.2	80-120	1.43	20	

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QUALITY CONTROL

Metals Analyses (Total) - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B251073 - SW-846 7470A Prep										
Blank (B251073-BLK1)				Prepared & Analyzed: 01/29/20						
Mercury	ND	0.00010	mg/L							
LCS (B251073-BS1)				Prepared & Analyzed: 01/29/20						
Mercury	0.00367	0.00010	mg/L	0.00400		91.7	80-120			
LCS Dup (B251073-BSD1)				Prepared & Analyzed: 01/29/20						
Mercury	0.00376	0.00010	mg/L	0.00400		93.9	80-120	2.44	20	

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QUALITY CONTROL

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

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch B250957 - SM21-22 3500 Cr B										
Blank (B250957-BLK1)				Prepared & Analyzed: 01/27/20						
Hexavalent Chromium	ND	0.0040	mg/L							
LCS (B250957-BS1)				Prepared & Analyzed: 01/27/20						
Hexavalent Chromium	0.091	0.0040	mg/L	0.100		91.4	83.9-121			
LCS Dup (B250957-BSD1)				Prepared & Analyzed: 01/27/20						
Hexavalent Chromium	0.093	0.0040	mg/L	0.100		93.0	83.9-121	1.70	10	
Batch B250973 - SM21-22 2540D										
Blank (B250973-BLK1)				Prepared & Analyzed: 01/28/20						
Total Suspended Solids	ND	2.5	mg/L							
LCS (B250973-BS1)				Prepared & Analyzed: 01/28/20						
Total Suspended Solids	176	10	mg/L	200		88.0	57.6-118			
Batch B251065 - EPA 300.0										
Blank (B251065-BLK1)				Prepared & Analyzed: 01/29/20						
Chloride	ND	1.0	mg/L							
LCS (B251065-BS1)				Prepared & Analyzed: 01/29/20						
Chloride	4.7	1.0	mg/L	5.00		94.0	90-110			
LCS Dup (B251065-BSD1)				Prepared & Analyzed: 01/29/20						
Chloride	4.7	1.0	mg/L	5.00		94.5	90-110	0.448	20	

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FLAG/QUALIFIER SUMMARY

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

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

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

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CERTIFICATIONS

Certified Analyses included in this Report

Analyte	Certifications
EPA 300.0 in Water	
Chloride	NC,NY,MA,VA,ME,NH,CT,RI
SM21-22 2540D in Water	
Total Suspended Solids	CT,MA,NH,NY,RI,NC,ME,VA
SM21-22 3500 Cr B in Water	
Hexavalent Chromium	NY,CT,NH,RI,ME,VA,NC
SW-846 6010 in Water	
Hardness	CT,MA,NH,NY
SW-846 6010D in Water	
Iron	CT,NH,NY,ME,VA,NC
SW-846 6020B in Water	
Antimony	CT,NH,NY,ME,VA,NC
Arsenic	CT,NH,NY,ME,VA,NC
Cadmium	CT,NH,NY,RI,ME,VA,NC
Chromium	CT,NH,NY,ME,VA,NC
Copper	CT,NH,NY,ME,VA,NC
Lead	CT,NH,NY,ME,VA,NC
Nickel	CT,NH,NY,ME,VA,NC
Silver	CT,NH,NY,ME,VA,NC
Zinc	CT,NH,NY,ME,VA,NC
SW-846 7470A in Water	
Mercury	CT,NH,NY,NC,ME,VA

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	06/30/2020
CT	Connecticut Department of Publilc Health	PH-0567	09/30/2021
NY	New York State Department of Health	10899 NELAP	04/1/2020
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2020
RI	Rhode Island Department of Health	LAO00112	12/30/2020
NC	North Carolina Div. of Water Quality	652	12/31/2020
NJ	New Jersey DEP	MA007 NELAP	06/30/2020
FL	Florida Department of Health	E871027 NELAP	06/30/2020
VT	Vermont Department of Health Lead Laboratory	LL015036	07/30/2020
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	06/12/2020
NC-DW	North Carolina Department of Health	25703	07/31/2020
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2020

con-test® ANALYTICAL LABORATORY

KHM

Phone: 413-525-2332 20A1174
Fax: 413-525-6405
Email: info@contestlabs.com

http://www.contestlabs.com

CHAIN OF CUSTODY RECORD

Doc # 381 Rev 1_03242017

39 Spruce Street
East Longmeadow, MA 01028

Page 1 of 1

Company Name: LRT
Address: 89 Crawford Street Leominster, MA
Phone: 774-450-7177

Project Name: Melrose YMCA
Project Location: 497 Main Street, Melrose, MA
Project Number: 2-1990
Project Manager: Brian Caccavale
Con-Test Quote Name/Number:
Invoice Recipient:
Sampled By: Brian Caccavale

Requested Turnaround Time
7-Day ☐ 10-Day ☐
Due Date:

Rush-Approval Required
1-Day ☐ 3-Day ☑
2-Day ☐ 4-Day ☐

Data Delivery
Format: PDF ☑ EXCEL ☐
Other:
CLP Like Data Pkg Required: ☐
Email To: Bcaccavale@lrt-llc.net
jennings@lrt-llc.net

Con-Test Work Order#	Client Sample ID / Description	Beginning Date/Time	Ending Date/Time	Composite	Grab	[1]Matrix Code	Conc Code	TSS	Total (As,Ag,Cd,Cr,Cu,Fe,Hg,Ni,Pb,Sb,Zn)	Chloride	Chromium VI	Hardness
1	S1	1/27/2020	1130		X	GW	L	X	X	X	X	X

ANALYSIS REQUESTED

# of Containers	1	1	1	1	1
[2] Preservation Code	I	N	I	I	N
[3] Container Code	P	P	P	P	P

Dissolved Metals Samples
○ Field Filtered
○ Lab to Filter

Orthophosphate Samples
○ Field Filtered
○ Lab to Filter

Comments: NPDES DGP Standards

pH 6.86

Please use the following codes to indicate possible sample concentration within the **Conc Code** column above:
H - High; M - Medium; L - Low; C - Clean; U - Unknown

[1] **Matrix Codes:**
GW = Ground Water
WW = Waste Water
DW = Drinking Water
A = Air
S = Soil
SL = Sludge
SOL = Solid
O = Other (please define)

[2] **Preservation Codes:**
I = Iced
H = HCL
M = Methanol
N = Nitric Acid
S = Sulfuric Acid
B = Sodium Bisulfate
X = Sodium Hydroxide
T = Sodium Thiosulfate
O = Other (please define)

[3] **Container Codes:**
A = Amber Glass
G = Glass
P = Plastic
ST = Sterile
V = Vial
S = Summa Canister
T = Tedlar Bag
O = Other (please define)

	Date/Time:
Relinquished by: (signature) Brian Caccavale	1/27/2020 1430
Received by: (signature) LRT Sample Room	1/27/2020 1430
Relinquished by: (signature) Brian Caccavale	1/27/2020 1530
Received by: (signature)	1/27/2020 3 30
Relinquished by: (signature)	1/27/2020 5 30
Received by: (signature) 5.3 1730	1-27-2020

Detection Limit Requirements
MA
CT
Other:

Special Requirements
☐ MA MCP Required
MCP Certification Form Required
☐ CT RCP Required
RCP Certification Form Required
☐ MA State DW Required
PWSID #

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www.contestlabs.com
NELAC and AIHA LAP, LLC Accredited

Project Entity
☐ Government ☐ Municipality ☐ MWRA ☐ WRTA
☐ Federal ☐ 21 J ☐ School
☐ City ☐ Brownfield ☐ MBTA

Other
☐ Chromatogram
☐ *AIHA-LAP,LLC*

PCB ONLY
☐ Soxhlet
☐ Non Soxhlet

Table of Contents

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

con-test® ANALYTICAL LABORATORY

Doc# 277 Rev 5 2017

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

Client LRT

Received By LR Date 1-27-2020 Time 1730

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

Were samples within Temperature? 2-6°C T By Gun # 5 Actual Temp - 5.3
By Blank # _____ Actual Temp - _____

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

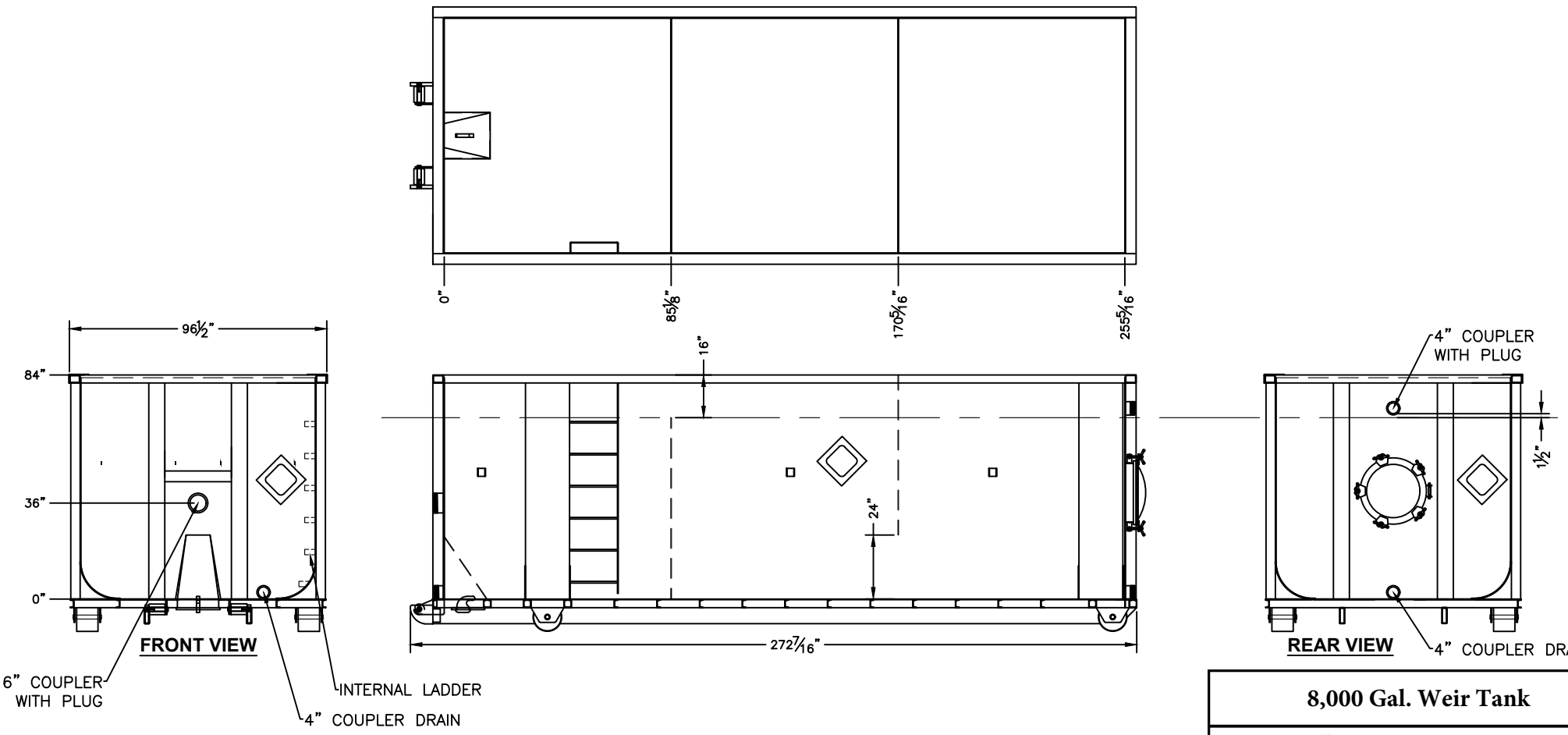
Vials	#	Containers:	#		#		#
Unp-		1 Liter Amb.		1 Liter Plastic	1	16 oz Amb.	
HCL-		500 mL Amb.		500 mL Plastic		8oz Amb/Clear	
Meoh-		250 mL Amb.		250 mL Plastic	4	4oz Amb/Clear	
Bisulfate-		Flashpoint		Col./Bacteria		2oz Amb/Clear	
DI-		Other Glass		Other Plastic		Encore	
Thiosulfate-		SOC Kit		Plastic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

Unused Media

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

Comments:

Appendix C
Water Treatment System
Cutsheets



8,000 Gal. Weir Tank

Lockwood Remediation Technologies, LLC

89 Crawford Street
Leominster, Massachusetts 01453
O: 774-450-7177
F: 888-835-0617

Polyester Liquid Filter Bag

Features

* Polyester liquid bag filter are available with a carbon steel ring, stainless steel ring or plastic flanges.
* Heavy-duty handle eases installation and removal
* Metal ring sewn into bag top for increased durability and positive sealing
* Wide array of media fibers to meet needed temperature and micron specifications

Applications

Polyester liquid filter bags can be used in the filtering of a wide array of industrial and commercial process fluids

Sizes

Our liquid filter bags are available for all common liquid bag housings. Dimensions range from 4.12" diameter X 8" length thru 9" diameter X 32" length.

Micron Ratings

Available fibers range from 1 to 1500 microns

Options

* Bag finish or covers for strict migration requirements.
* Plastic top O.E.M. replacements
* Multi-layered filtering capabilities for higher dirt holding capacities

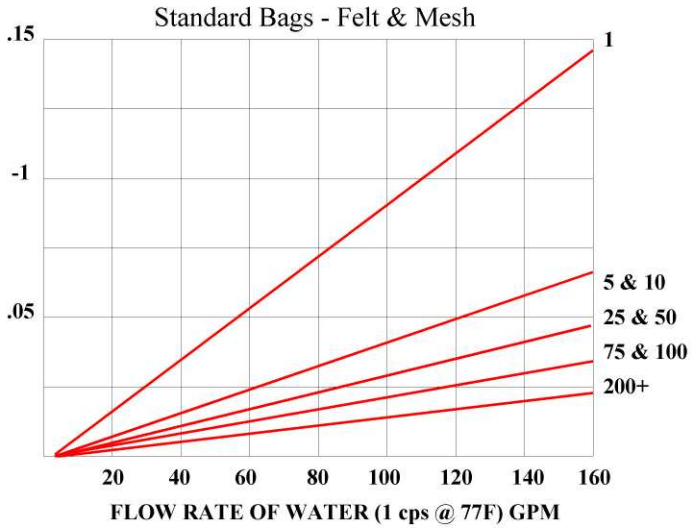
Optional Filter Media

Felt: Nomex, Polyester, Polypropylene

Monofilament: Nylon, Polyester, Polypropylene

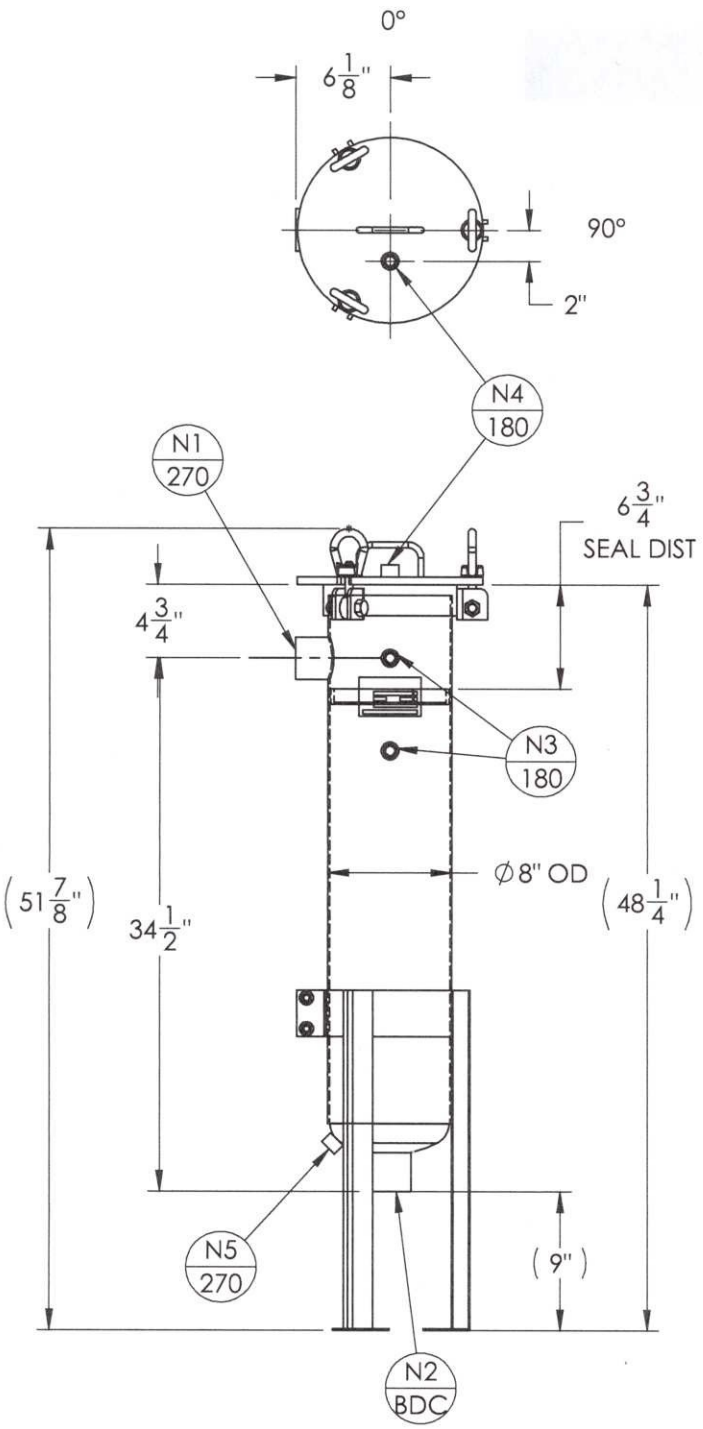
Multifilament: Nylon, Polyester

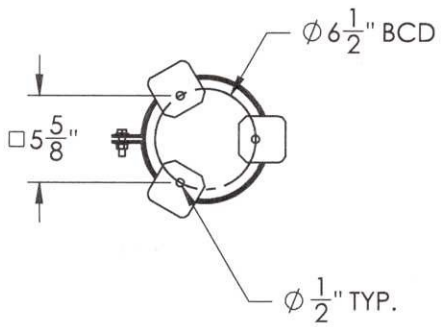
Polypropylene: Oil Removal



NOZZLE SCHEDULE			
MARK	QTY	SIZE / RATING	DESCRIPTION
N1	1	2" 150# NPT	INLET
N2	1	2" 150# NPT	OUTLET
N3	2	1/2" 3000# NPT	PRESS GA
N4	1	1/2" 3000# NPT	VENT
N5	1	1/2" 3000# NPT	CLEAN DRAIN
N6	-	-	DIRTY DRAIN

VESSEL DESIGN CONDITIONS			
CODE:	BEST COMMERCIAL PRACTICE		
M.A.W.P.:	150 PSI @ 250°F	M.D.M.T.:	-20° F @ 150 PSI
M.A.E.P.:	15 PSI @ 250°F		
CORROSION ALLOWANCE:	NONE	HYDROTEST PRESS:	195 PSI
STAMP:	'NC'	SERVICE:	NON LETHAL
PWHT:	N/A	RADIOGRAPHY:	N/A
MATERIAL:	SS 304/L	GASKET:	BUNA-N





DRY WEIGHT: 77.62 #'s
FLOODED WEIGHT: 140 #'s
SHIPPING WEIGHT: 100 #'s
VESSEL VOLUME: 1.0 C.F.

NOTES:
- VESSEL WILL HOUSE (QTY=1) DOUBLE LENGTH BASKET.

1:1

THIRD ANGLE PROJECTION

TOLERANCES-UNLESS OTHERWISE NOTED
DECIMAL .X =±.1" .XX =±.02" .XXX =±.005"
FRACTIONAL ≤24" =±1/16" >24" =±1/8"
ANGULAR =± 1°
MAX. MACHINED SURFACE FINISH 125

REV.	DATE	REVISION	DRAWN	APP'D

89 Crawford Street
Leominster, MA 01453
Tel: 774.450.7177
Fax: 888.835.0617

LRT Provided Bag Filter Housing

EQUIPMENT:	BAG FILTER HOUSING (EB SERIES)
MODEL NO:	S4EB112-2P-SW
CUSTOMER:	-

PARENT: NONE	DRAWN: CR	DATE: JAN 13 2011	JOB No. V-	DWG. No. 001-0123	REV. No. 0
PAGE: 1 OF 4	CHK'D: JM	SCALE: NTS			

Badger Meter

Recordall® Cold Water Top Load Bronze Disc Meter
Size 2" (DN 50mm)
NSF/ANSI Standard 61 Certified, Annex G

DESCRIPTION

Badger Meter offers the Recordall Disc meter in Cast Bronze and a Lead-Free Alloy. The Lead-Free Alloy (Trade designation: M170-LL) version has been certified to comply with NSF/ANSI Standard 61, Annex G and carries the NSF-61 Mark on the housing. All components of the Lead-Free Alloy meter, i.e., disc, chamber, housing, seals, etc. comprise the certified system.

APPLICATIONS: For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

OPERATION: Water flows through the meter's strainer and into the measuring chamber where it causes the disc to nutate. The disc, which moves freely, nutates on its own ball, guided by a thrust roller. A drive magnet transmits the motion of the disc to a follower magnet located within the permanently-sealed register. The follower magnet is connected to the register gear train. The gear train reduces the disc nutations into volume totalization units displayed on the register dial face.

OPERATING PERFORMANCE: The Badger Meter Recordall Disc meters meet or exceed registration accuracy for the low flow rates (95%), normal operating flow rates (100 ± 1.5%), and maximum continuous operation flow rates as specifically stated by AWWA Standard C700.

CONSTRUCTION: Badger Meter Recordall Disc meter construction, which complies with ANSI/AWWA standard C700, consists of three basic components: bronze meter housing, measuring chamber, and permanently, sealed register. A corrosion-resistant engineered polymer material is used for the measuring chamber.

To simplify maintenance, the register, measuring chamber, and strainer can be replaced without removing the meter housing from the installation. No change gears are required for accuracy calibration. Interchangeability of parts among like-sized meters also minimizes spare parts inventory investment. The built-in strainer has an effective straining area of twice the inlet size.

MAGNETIC DRIVE: Direct magnetic drive, through the use of high-strength magnets, provides positive, reliable and dependable register coupling for straight-reading, remote or automatic meter reading options.

SEALED REGISTER: The standard register consists of a straight-reading, odometer-type totalization display, 360° test circle with center sweep hand and flow finder to detect leaks. Register gearing consists of self-lubricating engineered polymer gears to minimize friction and provides long life. Permanently sealed; dirt, moisture, tampering and lens fogging problems are eliminated. Multi-position register simplifies meter installation and reading. Automatic meter reading systems are available for all Recordall Disc meters. All reading options are removable from the meter without disrupting water service.

TAMPER-PROOF FEATURES: Customer removal of the register to obtain free water can be prevented when the optional tamper detection seal wire screw/or Torx® tamper seal resistant screw is added to the meter. Both can be installed at the meter site or at the factory.

MAINTENANCE: Badger Meter Recordall Disc meters are designed and manufactured to provide long-term service with minimal maintenance. When maintenance is required, it can be performed easily either at the meter installation or at any other convenient location. As an alternative to repair by the utility, Badger Meter offers various maintenance and meter component exchange programs to fit the needs of the utility.

CONNECTIONS: Tailpieces/Flanges for installations of meters on various pipe types and sizes, including misaligned pipes, are available as an option.

Model 170 shown with optional 1" Test Plug

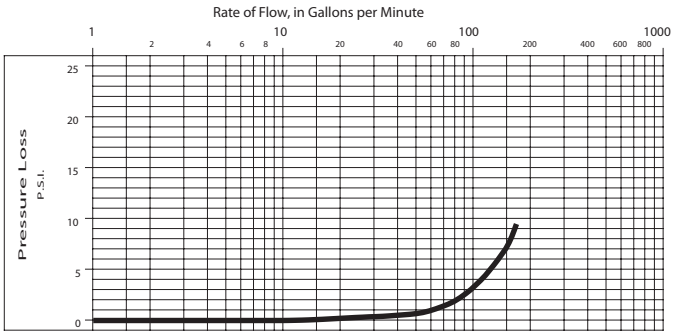
SPECIFICATIONS

Typical Operating Range (100% ± 1.5%)	2 1/2 -170 GPM (.57 to 39 m^3/hr)
Low Flow (Min. 95%)	1 1/2 GPM (.34 m^3/hr)
Maximum Continuous Operation	100 GPM (23 m^3/hr)
Pressure Loss at Maximum Continuous Operation	3.3 PSI at 100 GPM (.23 bar at 23 m^3/hr)
Maximum Operating Temperature	80°F (26°C)
Maximum Operating Pressure	150 PSI (10 bar)
Measuring Element	Nutating disc, positive displacement
Register Type	Straight reading, permanently sealed magnetic drive standard. Remote reading or Automatic Meter Reading units optional.
Registration	100 Gallons, 10 Cubic Feet, 1 m^3
Register Capacity	100,000,000 Gallons, 10,000,000 Cubic Feet, 1,000,000 m^3. 6 odometer wheels.
Meter Connections	2" AWWA two bolt elliptical flange, drilled, or 2" - 11 1/2 NPT internal pipe threads.
Optional Test Plug	1" NPT test plug (TP) available on elliptical long and short versions.

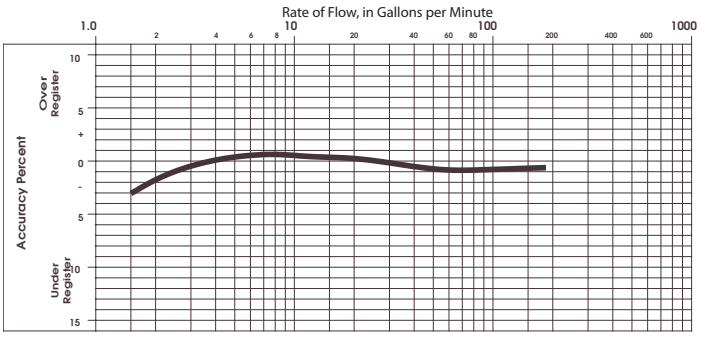
MATERIALS

Meter Housing	Cast Bronze, Lead-Free Alloy
Housing Top Plates	Bronze, Lead-Free Alloy
Measuring Chamber	Engineered Polymer
Disc	Engineered Polymer
Trim	Stainless Steel/Bronze
Strainer	Engineered Polymer
Disc Spindle	Stainless Steel
Magnet	Ceramic
Magnet Spindle	Stainless Steel
Register Lid and Box	Engineered Polymer or Bronze
Generator Housing	Engineered Polymer

PRESSURE LOSS CHART



ACCURACY CHART

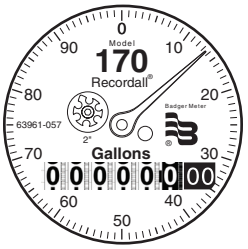


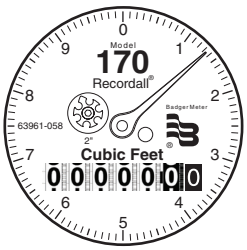
METER SIZE	METER MODEL	A LAYING LENGTH	B HEIGHT REG./RTR	C HEIGHT GEN.	D CENTERLINE BASE	WIDTH	APPROX. SHIPPING WEIGHT
2" (50mm)	170 EL, Hex. 170 EL, TP	$15^1/_4$" (387mm)	8" (203mm)	$9^3/_8$" (238mm)	$2^7/_8$" (73mm)	$9^1/_2$" (241mm)	30 lb. (13.6kg)
2" (50mm)	170 ELL, 170 ELL, TP	17" (432mm)	8" (203mm)	$9^3/_8$" (238mm)	$2^7/_8$" (73mm)	$9^1/_2$" (241mm)	30 lb. (13.6kg)

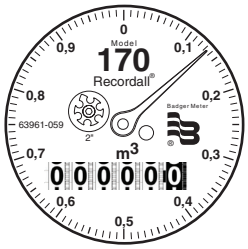
EL = Elliptical ELL = Elliptical Long Hex = Hexagon, 2" - $11^1/_2$ NPT Thread TP=Test Plug 1"

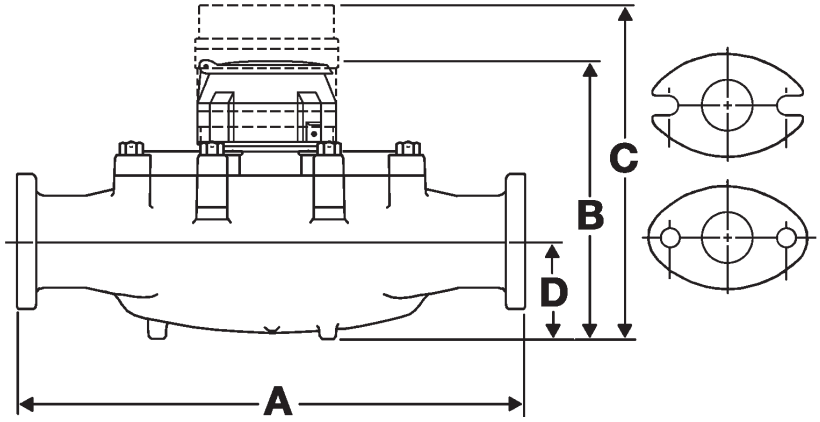
Sweep Hand Registration

MODEL	GALLON	CU.FT.	CU. METER
M170	100	10	1









Appendix D
Supplemental Information

MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

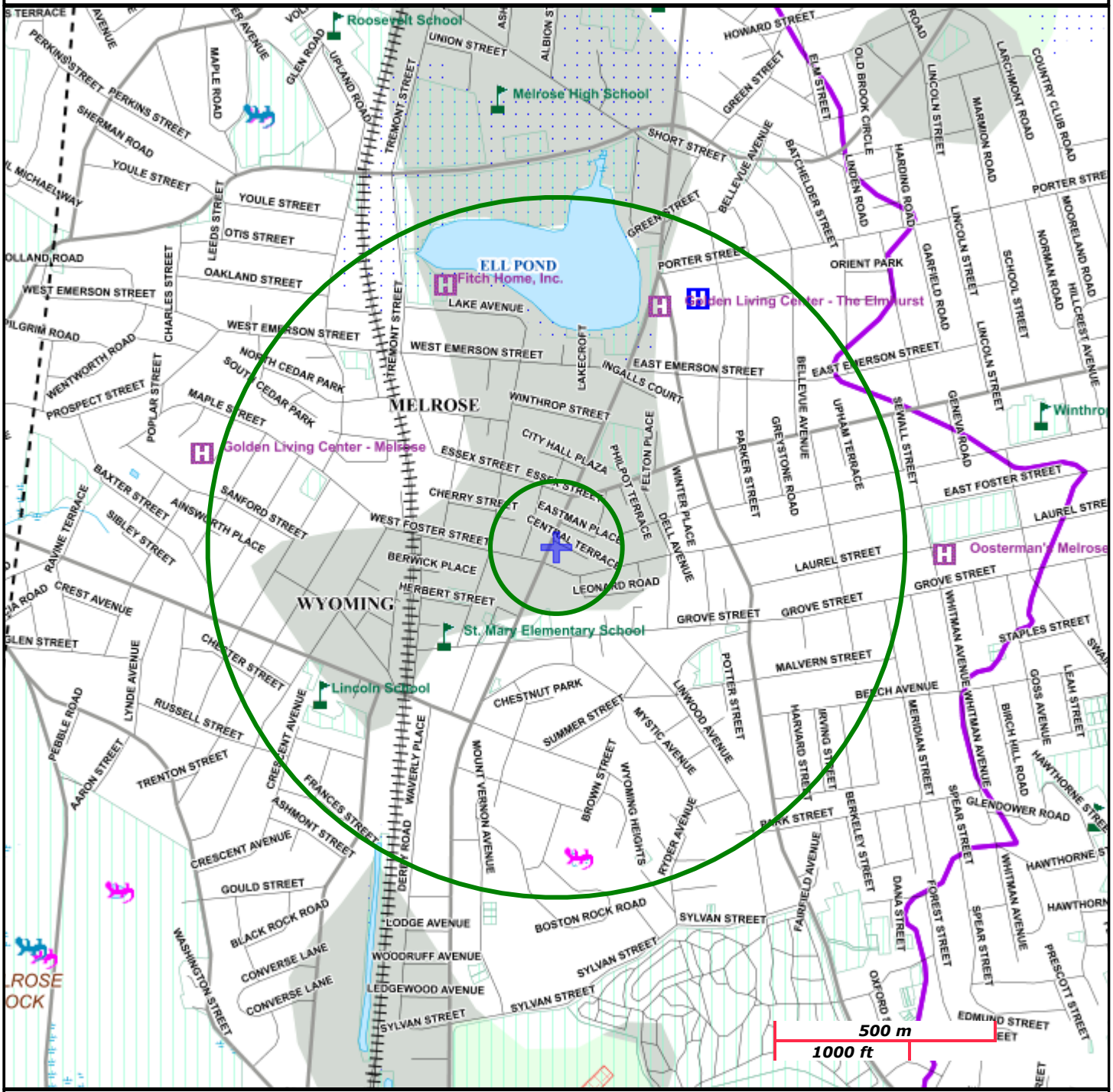
Site Information:

497 MAIN STREET MELROSE, MA

NAD83 UTM Meters:
4702372mN , 330194mE (Zone: 19)
January 14, 2020

The information shown is the best available at the date of printing. However, it may be incomplete. The responsible party and LSP are ultimately responsible for ascertaining the true conditions surrounding the site. Metadata for data layers shown on this map can be found at: https://www.mass.gov/orgs/massgis-bureau-of-geographic-information.

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail

Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct

Basins: Major, PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam

Aquifers: Medium Yield, High Yield, EPA Sole Source

Non Potential Drinking Water Source Area: Medium, High (Yield)

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential

Solid Waste Landfill; PWS: Com.GW,SW, Emerg., Non-Com.

Documentation of the Results of the ESA Eligibility Determination:

Using information in Appendix IV of the NPDES DGP project is eligible for coverage under this general permit under FWS Criterion B. This project is located in Middlesex County. No designated critical habitats were listed in the project area.

An Endangered Species Consultation was conducted on the U.S. Fish & Wildlife Service New England Field Office ECOS IPaC webpage for the Site:

- The Northern long-eared bat was listed as "Threatened" in Middlesex County

Based upon a discussion with the U.S. Fish & Wildlife Service (USFWS), temporary dewatering activities at the site are not expected to impact the Northern Long-eared Bat.

Northern long-eared bats spend winter hibernating in caves and mines. They use areas in various sized caves or mines with constant temperatures, high humidity, and no air currents. During the summer, northern long-eared bats roost singly or in colonies underneath bark, in cavities or in crevices of both live trees and snags (dead trees). There are no caves and mines located at the site. There are no trees in the immediate vicinity of the site; and tree removal is not part of the scope of work related to this Notice of Intent. Therefore, temporary dewatering activities will have "no impact" to the Northern Long-eared Bat.

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

In Reply Refer To: January 14, 2020
Consultation Code: 05E1NE00-2020-SLI-0993
Event Code: 05E1NE00-2020-E-02789
Project Name: Melrose YMCA

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

Project Summary

Consultation Code: 05E1NE00-2020-SLI-0993

Event Code: 05E1NE00-2020-E-02789

Project Name: Melrose YMCA

Project Type: Water Withdrawal / Depletion

Project Description: Construction Dewatering

Project Location:

Approximate location of the project can be viewed in Google Maps: https://www.google.com/maps/place/42.45487046541963N71.06462227438377W

Counties: Middlesex, MA

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 Fisheries[1], 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.

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1. NOAA Fisheries, 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	STATUS
Northern Long-eared Bat *Myotis septentrionalis* No critical habitat has been designated for this species. Species profile: https://ecos.fws.gov/ecp/species/9045	Threatened

Critical habitats

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

Documentation of the National Historic Preservation Act Eligibility Determination:

As part of this permit, a determination was made as to whether there were any historic properties or places listed on the national register in the path of the discharge or in the vicinity of the construction of treatment systems or BMPs related to the discharge. A search on the Massachusetts Cultural Resource Information System Database has the site listed as a historic property. However, the portion of the building where construction and dewatering work will be conducted is an addition added in 1985, and not part of the historic building. Therefore, the proposed discharge will not have the potential to cause effects on historical properties.

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Melrose; Street No: 497; Street Name: main; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
MEL.3		497 Main St	Melrose	1894

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	MEL.3
Historic Name:	
Common Name:	Melrose YMCA
Address:	497 Main St
City/Town:	Melrose
Village/Neighborhood:	Melrose Center
Local No:	
Year Constructed:	1894
Architect(s):	Bond Brothers; Cummings; Hartwell, Richardson & Driver; MacDonald, Angus; Valtz and Kimberley
Architectural Style(s):	Romanesque Revival
Use(s):	Bank; Library; Other Recreational; Other Social
Significance:	Architecture; Commerce; Community Planning; Education; Recreation
Area(s):	MEL.C: Melrose Town Center Historic District
Designation(s):	Local Historic District (08/16/1979)
Building Materials(s):	Roof: Slate Wall: Asbestos Shingle; Brick; Copper; Limestone; Wood Clapboard Foundation: Stone, Uncut

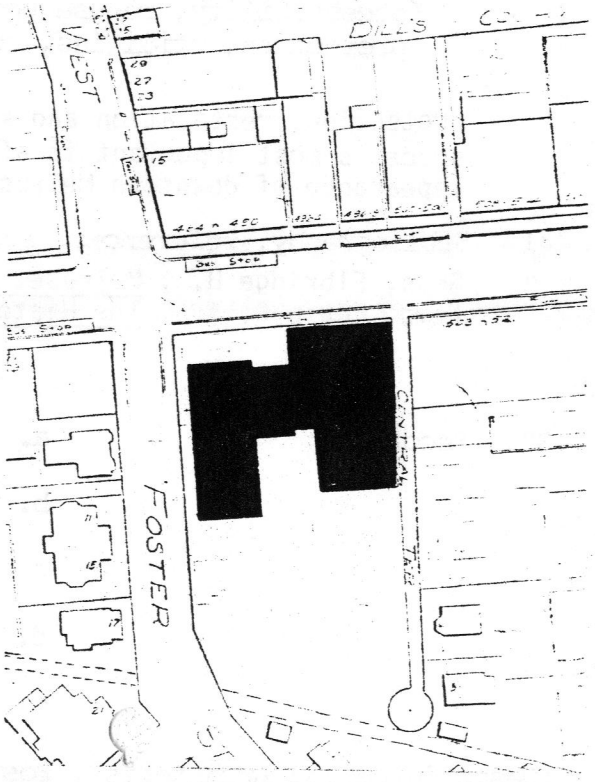
Commonwealth of Massachusetts
Massachusetts Historical Commission
220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc

MEL.3

Area number	Form number
C	3

1. Town Melrose, Massachusetts
2. Address 497 Main Street
3. Name Young Men's Christian Ass'n.
4. Date 1894 (cornerstone)
5. Style Romanesque Revival
6. Architect Hartwell & Richardson
   Addition: Valte & Kimberly
7. Builder Cummings, Contractor
   Addition: Bond Brothers
8. Owner (original) YMCA
   (present) YMCA
9. Use (original) community/residential
   (present) community/residential
10. Lot size 39,546 sq. ft.
11. Distance from St. 2', add., 21'
12. Approximate frontage 155.93

13. Building type YMCA multi-purpose
14. Plan type rectangular
15. No. of stories 3½ bays 7
16. Foundation stone
17. Walls brick bearing walls
    rear elevation clapboard and asbestos
18. Roof forms side gables; 3 front dormers
    materials slate with copper flashing and trim
    features ball finials on dormers
19. Chimney(s)
20. Doors and windows varied sizes and shapes; plate glass 1/1 with fixed transoms.
21. Porches and additions swimming pool wing
22. Outbuildings none
23. Alterations new center entrance, et. al
24. Present condition good
25. Other exterior features north side 3rd floor stepped round-arched windows (5), with patterned brick; pool addition; slightly sloped gable roof; overhanging eaves; brick walls, connecting metal and glass hyphen; limestone panel on gable end-to-street wall, setback from street.



MEL.3

26. Surroundings

(landscaping, parks, sidewalks, buildings or alleyways that border the building).

Important corner location. Alley on north side. Pool addition set back from corner with small brick plaza and free-standing wall in front with flagpole.

27. Importance to setting

(great, moderate, minor, none, detrimental)

moderate

28. Further explanation of architectural data/significance

(other uses and dates, previous locations and dates, assessment, elevators, etc., characteristis of architectural style, specimen or period, or architect, builder, or construction method, extent of surviving original material)

The most impressive and best-designed building in downtown Melrose, the YMCA has fine proportions, elegant iron, brick, copper and terra cotta work and a dominant position on Main Street. A brick addition was made in 1919 by Angus MacDonald, Builder.

29. Historical and social data/significance

(national, regional or local importance relating to events, personages, themes)

The present Melrose YMCA was dedicated on April 1, 1895. By 1911 its membership was 1,108, the largest in the country for a city of comparable size. In that period, it contained also the Public Library and the Melrose National Bank. It has been the center of the community's recreational activity for more than eighty years and continues to serve and expand its original functions.

30. Preservation considerations

(accessibility, re-use possibilities, capacity for public use and enjoyment, protection, utilities, context)

Protection, restoration and sensitive use of this building and its corner open space is most important in affirming and maintaining the quality and historic appearance of downtown Melrose.

31. Bibliography, references, sources of dates

Goss, Elbridge H., Melrose, Massachusetts, 1900-1950
Kemp, Edwin C. The History of Melrose, 1902

32. Recording:

a. date August 21, 1978
b. organization Bastille-Neiley
c. field survey Cudlip/DiStefano
d. research at Melrose Public Sources
e. checked by Robert G. Neiley

MEL.3

FORM B - BUILDING

D. MALCENT

In Area no.	Form no.
C	3

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, State House, Boston

LHD - 8/16/79

2

1. Town Melrose

Address 497 Main Street

Name Y.M.C.A.

Present use Young Men's Christian Assn

Present owner Y.M.C.A.

3. Description:

Date 1894

Source Corner Stone

Style Victorian

Architect Hartwell, Richardson and Driver

Exterior wall fabric Red brick

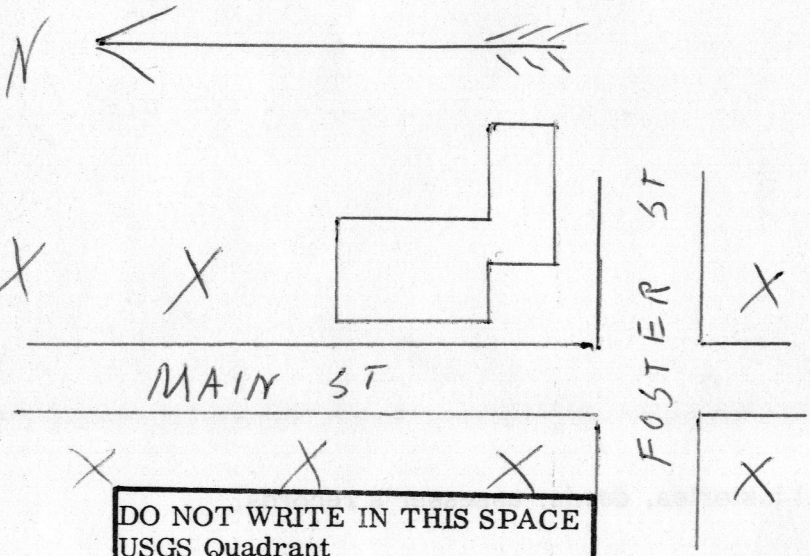
Outbuildings (describe)

Other features Large addition contains swimming pool

Altered Date

Moved Date

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.



5. Lot size:

One acre or less x Over one acre

Approximate frontage 150 feet

Approximate distance of building from street 8 feet

6. Recorded by Orren Lynde Walsh

Organization Melrose Historical Comm.

Date May 3, 1977

DO NOT WRITE IN THIS SPACE
USGS Quadrant

MHC Photo no.

(over)

5M-2-75-R061465 (20M-2-76)

MEL.3

7. **Original owner (if known)** Young Men's Christian Association

Original use Y.M.C.A. (street floor occupied by Bank and Public Library)

Subsequent uses (if any) and dates Y.M.C.A.

8. **Themes (check as many as applicable)**

Aboriginal		Conservation		Recreation	x
Agricultural		Education	x	Religion	x
Architectural	X	Exploration/ settlement		Science/ invention	
The Arts		Industry		Social/ humanitarian	x
Commerce	x	Military		Transportation	
Communication		Political			
Community development	x				

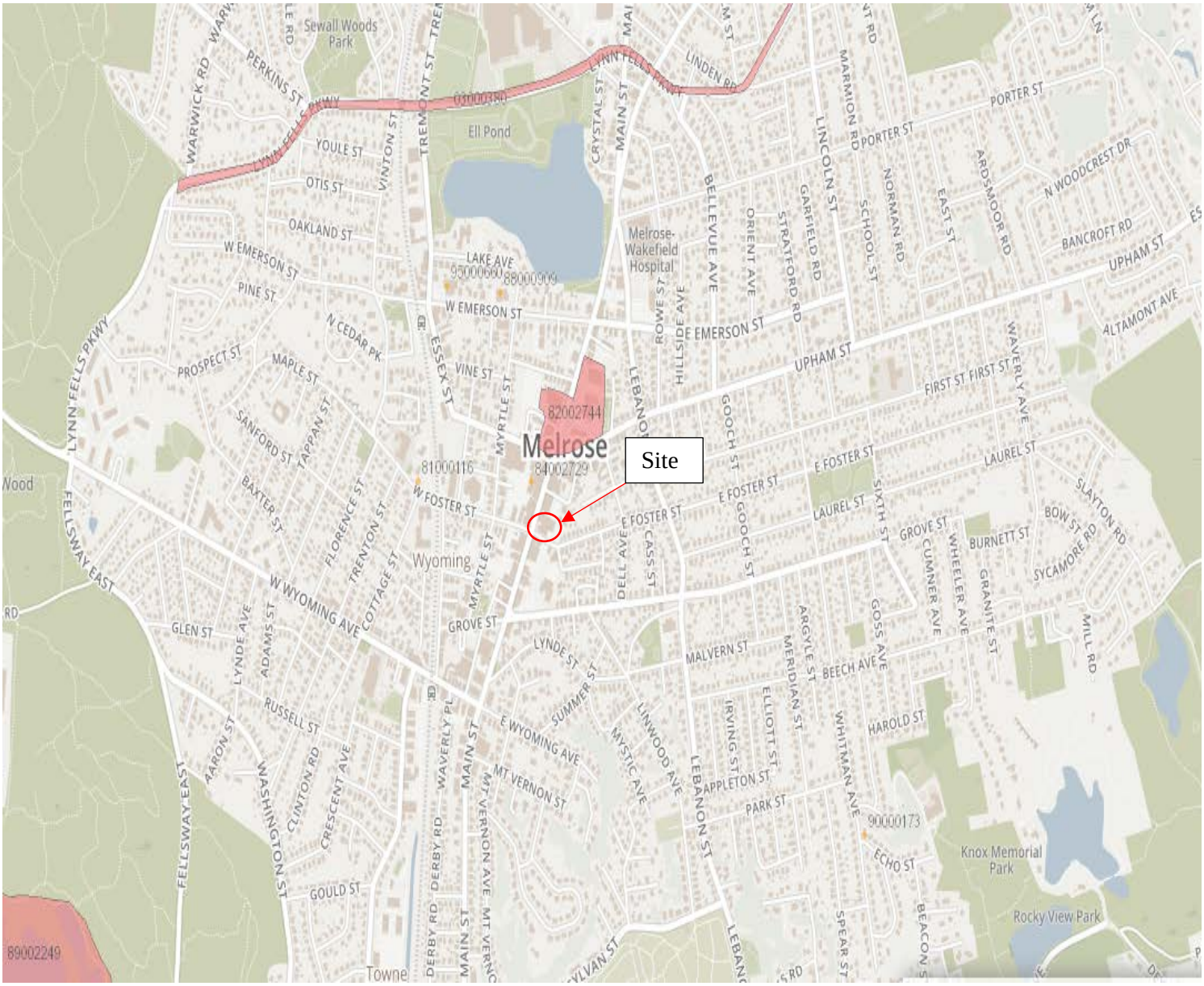
9. **Historical significance (include explanation of themes checked above)**

The Y.M.C.A. in Melrose was organized in 1858, and the present building was constructed in 1894. The street floor was rented to the Melrose Public Library and the Melrose National Bank. In subsequent years it has been used soleby the Y.M.C.A. for athletic, religious, social, and educational purposes. Currently the organization is serving from 400 to 600 people a day in this building.

10. **Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)**

History of Melrose by Elbridge H. Goss

Assessors' Records.


Site
Melrose
Wyoming
Towne
Sewall Woods Park
Ell Pond
Melrose-Wakefield Hospital
Knox Memorial Park
Rocky View Park
WARWICK RD
PERKINS ST
LYNN FELLS PKWY
YOULE ST
OTIS ST
OAKLAND ST
W EMERSON ST
PINE ST
N CEDAR PK
PROSPECT ST
MAPLE ST
SANFORD ST
TAPPAN ST
BAXTER ST
FLORENCE ST
TRENTON ST
COTTAGE ST
W WYOMING AVE
GLEN ST
LYNDE AVE
ADAMS ST
RUSSELL ST
AARON ST
CLINTON RD
CRESCENT AVE
WASHINGTON ST
GOULD ST
FELLSWAY EAST
FELLSWAY WEST
VINTON ST
TREMONT ST
LAKE AVE
VINE ST
ESSEX ST
MYRTLE ST
W FOSTER ST
GROVE ST
LYNDE ST
SUMMER ST
E WYOMING AVE
MT VERNON ST
WAVERLY PL
MAIN ST
DERBY RD
CRYSTAL ST
LINDEN RD
ROWE ST
HILLSIDE AVE
BELLEVUE AVE
ORIENT AVE
STRATFORD RD
GARFIELD RD
LINCOLN ST
MARMION RD
SCHOOL ST
NORMAN RD
EAST ST
ARDSMOOR RD
PORTER ST
N WOODCREST DR
BANCROFT RD
UPHAM ST
ALTAMONT AVE
E EMERSON ST
FIRST ST
WAVERLY AVE
GOOCH ST
E FOSTER ST
DELL AVE
CASS ST
LAUREL ST
SIXTH ST
GROVE ST
CUMNER AVE
WHEELER AVE
BURNETT ST
BOW ST
SYCAMORE RD
SLAYTON RD
GRANITE ST
MILL RD
GOSS AVE
BEECH AVE
MALVERN ST
ARGYLE ST
MERIDIAN ST
ELLIOTT ST
IRVING ST
APPLETON ST
LINWOOD AVE
MYSTIC AVE
LEBANON ST
PARK ST
WHITMAN AVE
HAROLD ST
ECHO ST
SPEAR ST
BEACON ST
82002744
84002729
81000116
95000660
88000909
03000380
90000173
89002249