

June 25, 2019

GeoInsight Project 6638-011

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

RE: Notice of Intent – Remediation General Permit Park 77 75 and 83 New Street Cambridge, Massachusetts

To Whom It May Concern:

GeoInsight Inc. (GeoInsight) prepared the attached Notice of Intent (NOI) for the Remediation General Permit (RGP) at the request of AbodeZ Acorn New Street LLC (AbodeZ). A copy of the NOI for the RGP is provided in Attachment A.

The purpose of this submittal is to obtain a permit to temporarily discharge water generated during redevelopment activities at two contiguous parcels of land at 75 and 83 New Street in Cambridge, Massachusetts (herein referred to as the "Property"). The Property is being redeveloped into a new multifamily residential development that includes a single-level underground parking garage. Discharge activities associated with the redevelopment were previously conducted at the Property between October 2017 and January 2019 under United States Environmental Protection Agency (USEPA) Authorization #MAG910713. A Notice of Termination (NOT) was filed for Authorization #MAG910713 on February 19, 2019. However; in May 2019, the construction team identified that additional dewatering would be necessary to complete the redevelopment. Specifically, groundwater at the Property has infiltrated the recently-constructed underground parking garage structure and the excavated area located between the sheet piles the structure. Groundwater from these areas will need to be removed to allow for the completion of the redevelopment project.

BACKGROUND

The Property is located on the west side of New Street in the City of Cambridge, Massachusetts. The Property is abutted to the east by New Street and Thomas W. Danehy Park (Danehy Park), to the south by industrial and commercial buildings, to the west by Fresh Pond Mall, and to the north by a residential apartment building. Refer to Figure 1 for the location of the Property and to Figure 2 for Property features.

NEW HAMPSHIRE 186 Granite Street 3rd Floor, Suite A Manchester, NH 03101 Tel 603.314.0820 MASSACHUSETTS 1 Monarch Drive Suite 201 Littleton, MA 01460 Tel 978.679.1600

MAINE 4 Market Place Drive 2nd Floor, Suite 207 York, ME 03909 Tel 207.606.1043 CONNECTICUT

200 Court Street 2nd Floor Middletown, CT 06457 Tel 860.894.1022



The approximate Universal Transverse Mercator (UTM) and latitude/longitude coordinates for the approximate center of the Property are as follows:

UTM Coordinates (Zone 19)	Latitude & Longitude Coordinates
4,695,119 meters North	42.388379° North
323,800 meters East	70.140585° West

The 75 New Street portion of the Property consists of approximately 40,000 square feet (0.92 acres) of land, and was formerly occupied by a multi-story, slab-on-grade warehouse/ office building and a paved parking lot. The building was demolished in 2015 as part of the proposed redevelopment project. The 83 New Street portion of the Property consists of approximately 9,225 square feet (0.21 acres) of land that was used as a parking lot for the Property. The 83 New Street portion of the Property abuts 75 New Street to the north. Refer to Figure 2 for the layout of the Property.

Redevelopment activities commenced in the summer of 2017 and are anticipated to be completed by the end of 2019. Dewatering is necessary to control groundwater infiltration and remove accumulated groundwater in the building basement and in the open areas between the sheet pile and the building. Dewatering will be conducted using pumps installed in the basement of the partially-constructed building and/or within adjacent excavations.

ENVIRONMENTAL HISTORY

On May 12, 2014, test pits were advanced to pre-characterize the Property for potential redevelopment and soil management purposes. Test pit locations are shown on Figure 2. Soil samples collected during the test pit program were laboratory analyzed for disposal parameters. Analytes detected above the applicable Massachusetts Contingency Plan (MCP) RCS-1 Reportable Concentrations consisted of arsenic, barium, benzo(a)pyrene, benzo(b)anthracene, benzo(b)fluoranthene, lead, and total petroleum hydrocarbons (TPH). Based upon these data, a Release Notification Form (RNF) was filed with the Massachusetts Department of Environmental Protection (MADEP) on June 4, 2014 and release tracking number (RTN)

3-32213 was assigned to the condition. Analytical data were included in an October 2015 Phase I Initial Site Investigation filed with MADEP.

Soil excavation activities commenced at the Property in July 2017. Following the excavations conducted to construct the underground garage, ten post-excavation soil limit samples were collected from the limits of the excavation. The post-excavation soil samples were submitted for laboratory analysis of Extractable Petroleum Hydrocarbons (EPH) fractions and target analytes and Resource Conservation and Recovery Act (RCRA) 8 metals. Analytical data were included in an November 2018 Phase II Comprehensive Site Assessment filed with MADEP.



REMEDIATION GENERAL PERMIT NOTICE OF INTENT

On January 14, 2019, prior to the anticipated permanent shutdown of the treatment system under USEPA Authorization #MAG910713, groundwater samples were obtained from influent and effluent of the treatment system and analyzed for the parameters required for Activity Category III-G. The samples were submitted to Alpha Analytical Laboratories of Westborough, Massachusetts (Alpha) for laboratory analysis. The January 14, 2019 influent sample is considered to be a conservative representation of groundwater that will be generated by the proposed dewatering activities. The analytical results for the influent sample identified that analyte concentrations were below RGP effluent limitations, with the exception of Total Suspended Solids (TSS) and iron.

On May 23, 2019, a surface water sample was collected from the receiving water body, a wetland connected to Alewife Brook (segment MA71-04) and field analyzed for temperature and pH. The sample collected from the receiving water body was also analyzed by Alpha for ammonia, hardness, and total metals.

During the dewatering process, groundwater will be pumped into one or more sedimentation tanks and/or through bag filters to remove suspended solids and iron precipitate. Supplemental treatment may be added to meet discharge criteria, as illustrated in the Proposed Treatment System Schematic included in Figure 3. Dewatering under this RGP NOI will include discharging the treated water to a storm drain catch basin located near the Property. The storm drain system carries water from the construction site approximately 1 mile to the northeast before discharging to wetlands associated with Alewife Brook. The water from the Property will travel through the storm drain systems located beneath New Street, Concord Avenue, Wheeler Street, and Fawcett Street. The proposed discharge route is shown on Figures 4A through 4F. Supporting documentation for the NOI is included in Attachments B through E.

DILUTION FACTOR AND EFFLUENT LIMITATION CALCULATIONS

A Dilution Factor (DF) was calculated using the methods described in Appendix V of the RGP. In order to calculate a DF, the seven day-ten-year low flow (7Q10) of the receiving water was identified in accordance with the instructions in Appendix V of the RGP and verified with Catherine Vakalopoulos of the MADEP. Correspondence with Ms. Vakalopoulos is included in Appendix F. A copy of the USEPA provided spreadsheet to calculate the DF and water qualitybased effluent limitations (WQBELs) is included in Appendix G.

SUMMARY AND CONCLUSIONS

The purpose of this report is to summarize environmental conditions and groundwater data collected to date to support a Notice of Intent to discharge under the Remediation General Permit for the redevelopment project located at 75 and 83 New Street in Cambridge, Massachusetts. The proposed construction dewatering effluent treatment system will be modified as needed to achieve the USEPA's effluent limits. If you have any questions or comments regarding the contents of this letter or the enclosed materials, please contact either of us at (978) 679-1600.

Sincerely, GEOINSIGHT, INC.

Timothy W. Maus **Project Geologist**

Kevin D. Trainer, C.P.G., P.G., L.S.P.

Senior Associate

FIGURES Figure 1 – Site Locus Figure 2 – Property Plan Figure 3 – Proposed Treatment System Schematic Figure 4A – Proposed Dewatering Discharge Route (Part 1 of 6) Figure 4B – Proposed Dewatering Discharge Route (Part 2 of 6) Figure 4C – Proposed Dewatering Discharge Route (Part 3 of 6) Figure 4D – Proposed Dewatering Discharge Route (Part 4 of 6) Figure 4E – Proposed Dewatering Discharge Route (Part 5 of 6) Figure 4F – Proposed Dewatering Discharge Route (Part 6 of 6) Figure 5 – BWSC Phase I Site Assessment Map

ATTACHMENTS

Attachment A - Notice of Intent for the Remediation General Permit

Attachment B – Endangered Species Act Documentation

Attachment C – National Historic Preservation Act Documentation

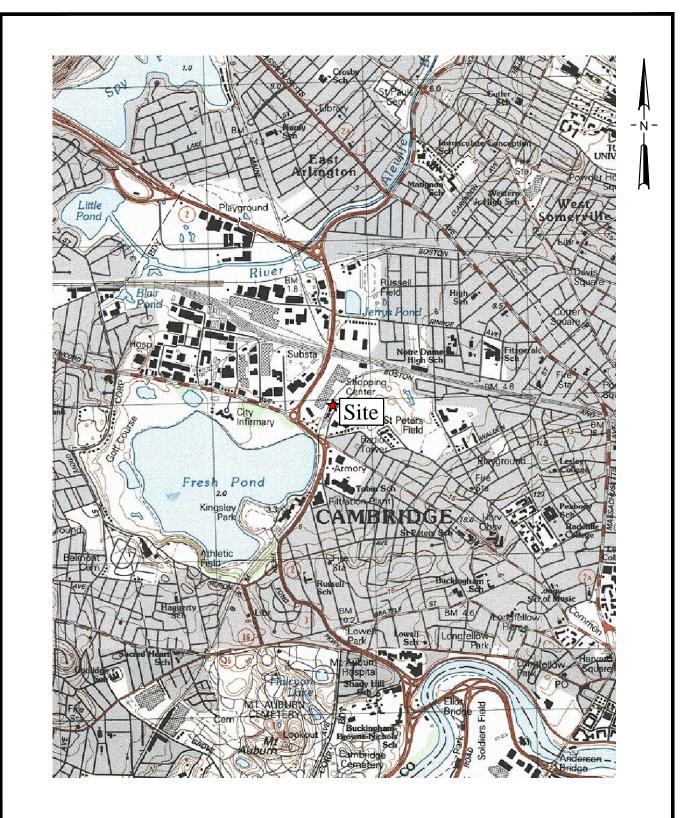
- Attachment D Receiving Water Hydrologic Information
- Attachment E Laboratory Reports
- Attachment F MADEP Correspondence

Attachment G – USEPA Appendix V Dilution Factor and WQBEL Spreadsheet



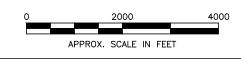
-

FIGURES

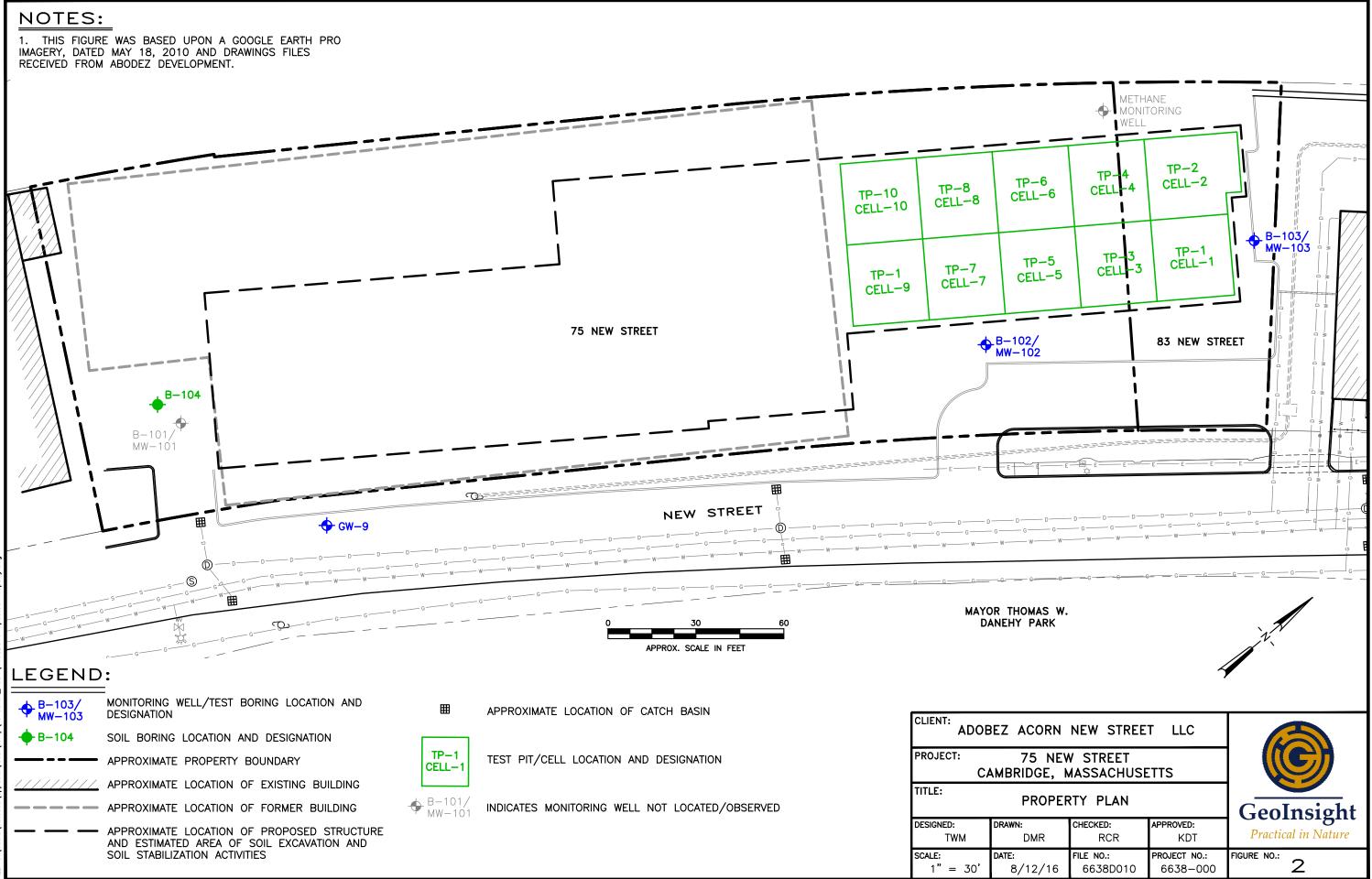


SOURCE:

USGS BOSTON NORTH, MA 1979 TOPOGRAPHIC QUADRANGLE CONTOUR INTERVAL: 3 METERS



CLIENT: ADO	BEZ ACORN	NEW STREE	T LLC	
PROJECT:	75 NEV MBRIDGE, N	V STREET ASSACHUSE	TTS	
TITLE:	SITE	LOCUS		GeoInsight
DESIGNED: TJN	DRAWN: STM	CHECKED: KDT	APPROVED: MJW	Practical in Nature
SCALE: 1" = 2000'	DATE: 05/08/12	FILE NO.: 6638-LOCUS	PROJECT NO.: 6638-000	FIGURE NO.: 1



:: 3-22-17 |sers\autocad\appdata\local\temp\AcPublish_7384\6638D010 Updated

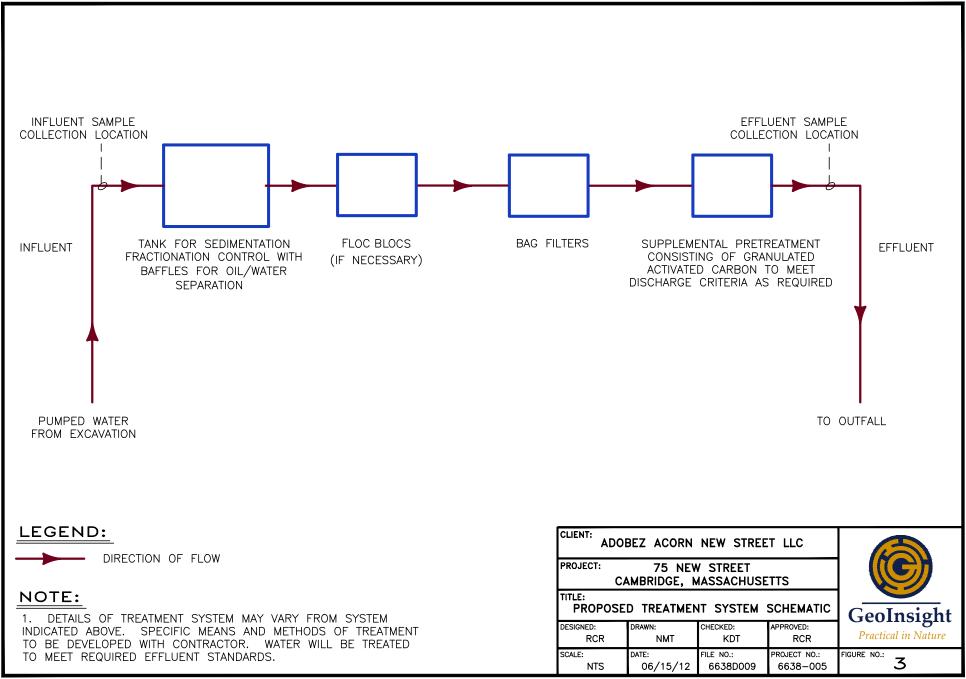
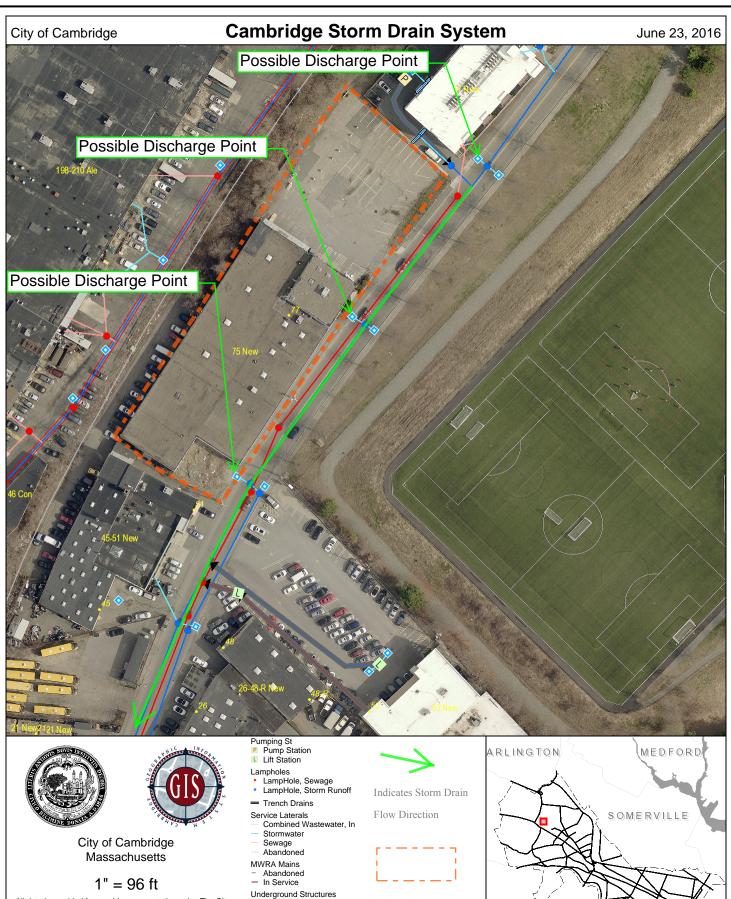


FIGURE 4A - PROPOSED DEWATERING DISCHARGE ROUTE (Part 1 of 6)



Stormwater
 Sewage
 Combined Sewage

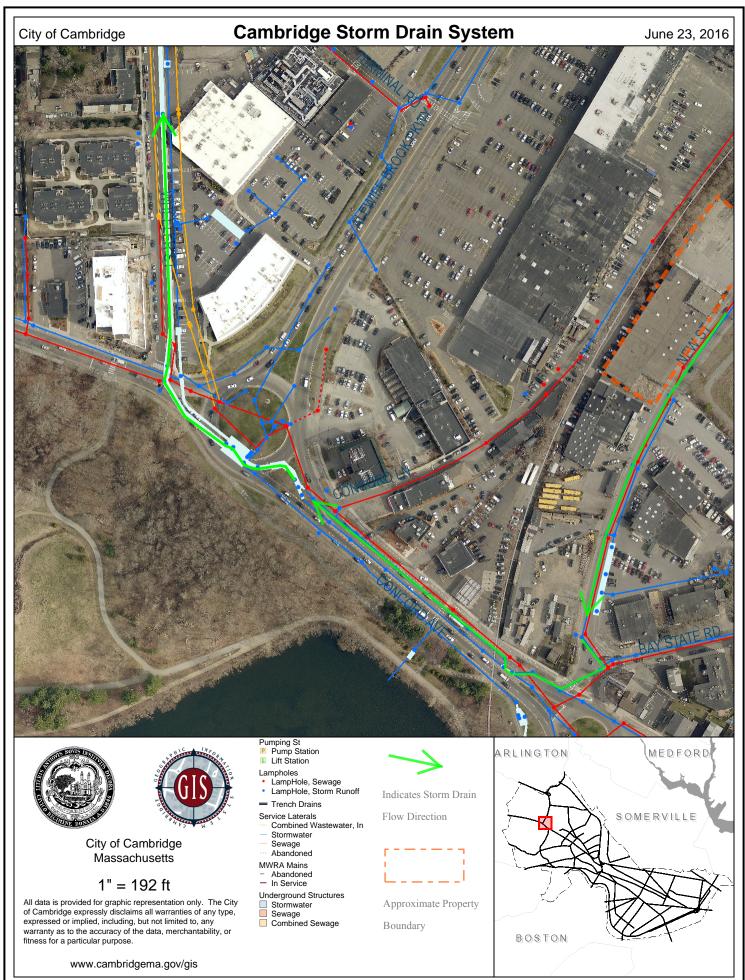
Approximate Property

BOSTON

Boundary

All data is provided for graphic representation only. The City of Cambridge expressly disclaims all warranties of any type, expressed or implied, including, but not limited to, any warranty as to the accuracy of the data, merchantability, or fitness for a particular purpose.

www.cambridgema.gov/gis



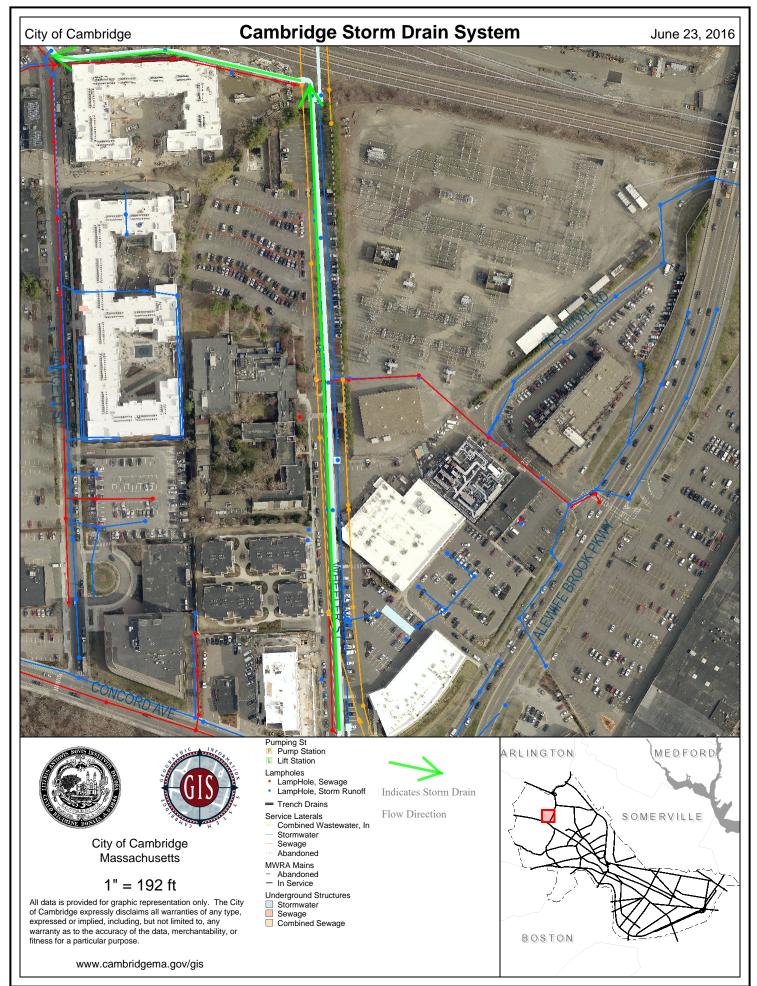


FIGURE 4D - PROPOSED DEWATERING DISCHARGE ROUTE (Part 4 of 6)

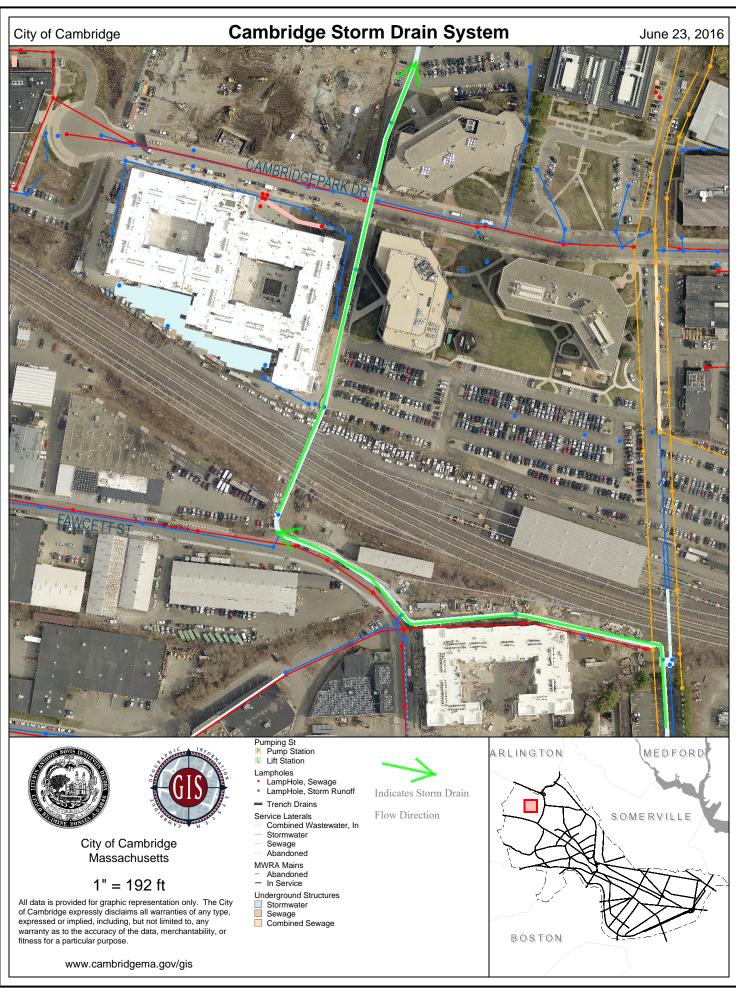
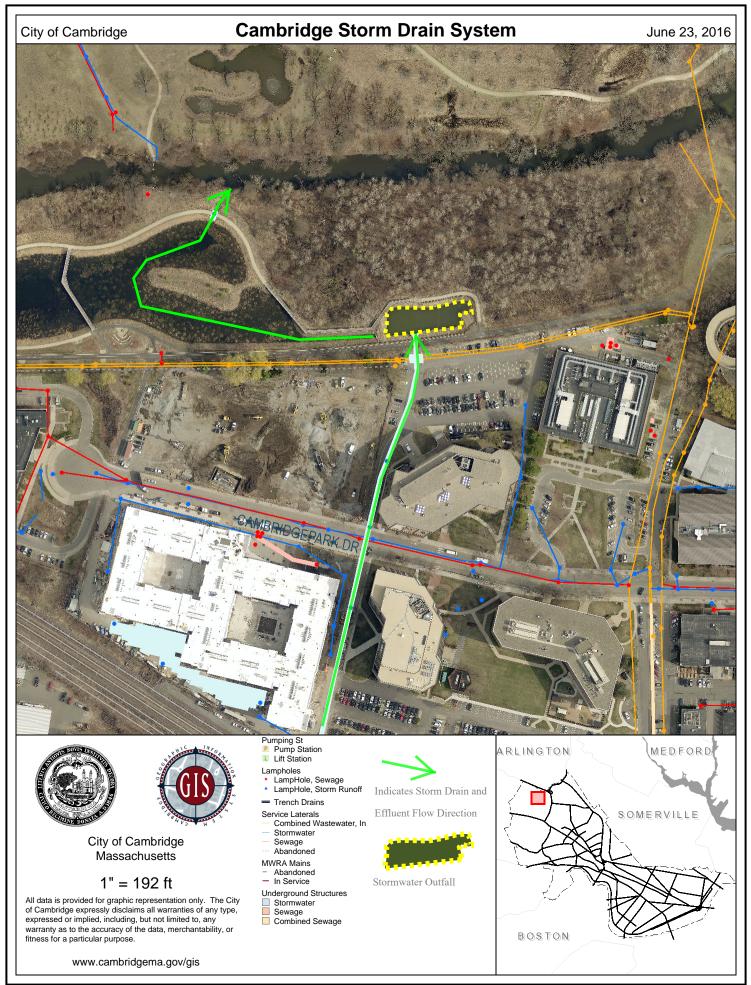
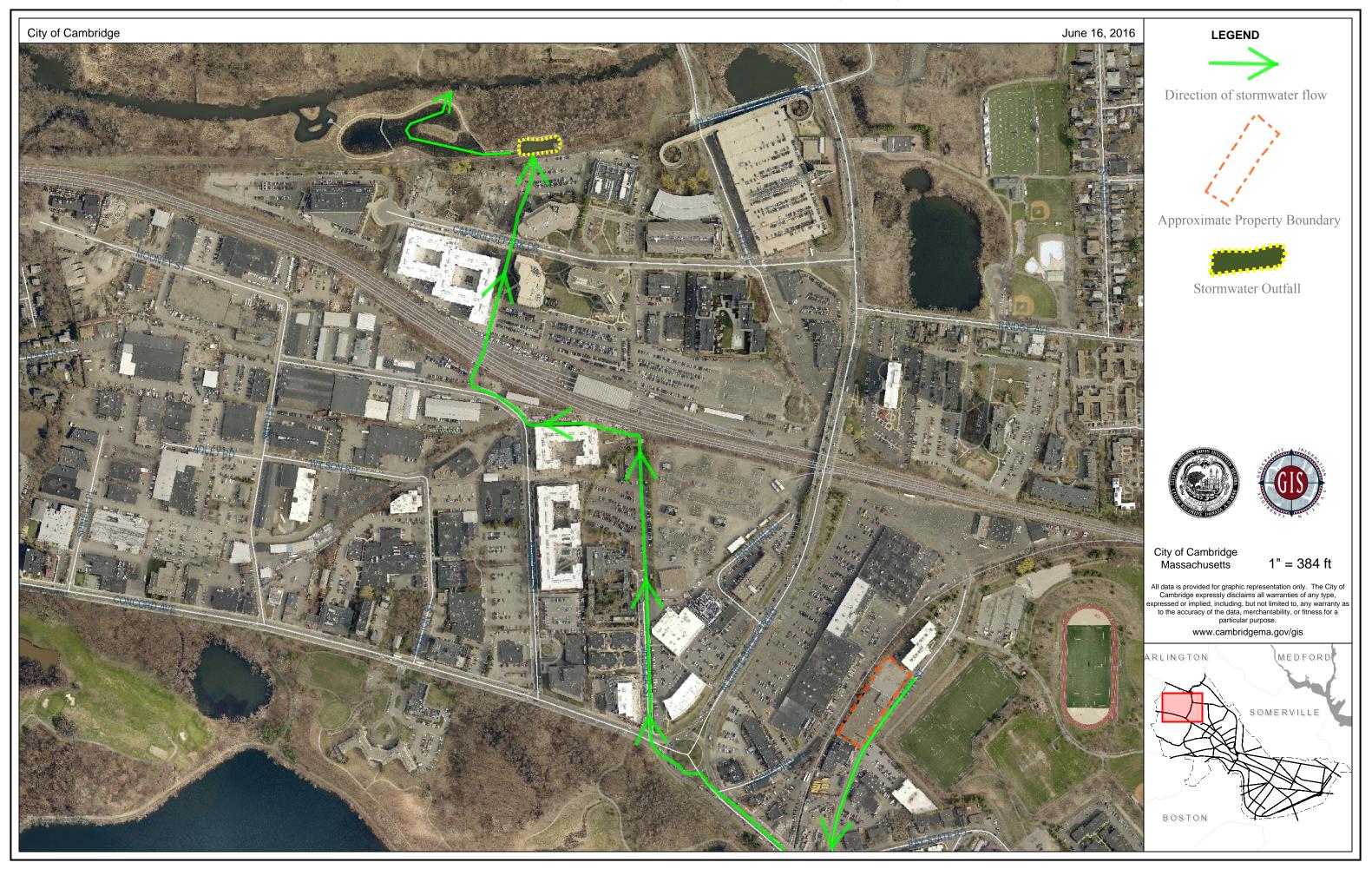
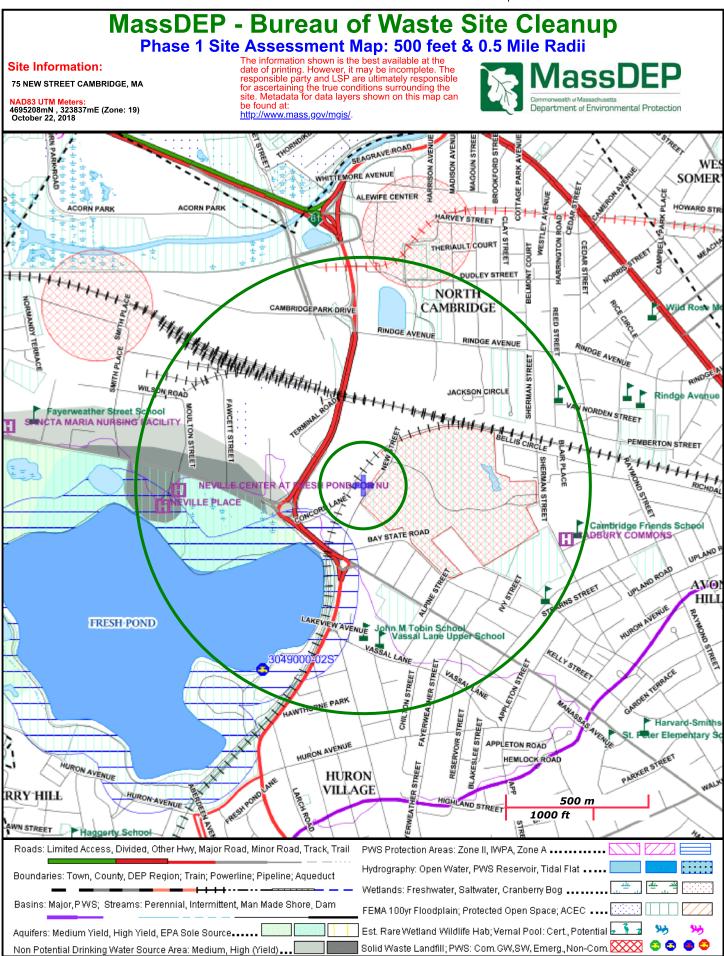


FIGURE 4E - PROPOSED DEWATERING DISCHARGE ROUTE (Part 5 of 6)









ATTACHMENTS

ATTACHMENT A

NOTICE OF INTENT FOR THE REMEDIATION GENERAL PERMIT

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

A. General site information:

1. Name of site: Park 77	Site address: 75 and 83 Street: New Street				
	^{City:} Cambridge		State: MA	Zip: 02138	
2. Site owner Abodez Acorn New Street LLC	Contact Person: Phil Terzis	1			
	Telephone: 617-453-9700 Mailing address: 300 Street: Washington Street	Email: pte	erzis@acorr	h.com	
Owner is (check one): □ Federal □ State/Tribal ■ Private □ Other; if so, specify:	City: Newton		State: MA	Zip: 02458	
3. Site operator, if different than owner	Contact Person: Robert Leach				
Nauset Construction	Telephone: 781-453-2220 Email: bleach@nauset.com Mailing address: 10 Kearney Road #307 Street: 10 Kearney Road #307				
	City: Needham Heights		State: MA	Zip: 02494	
 4. NPDES permit number assigned by EPA: NA NPDES permit is (check all that apply: ■ RGP □ DGP □ CGP □ MSGP □ Individual NPDES permit □ Other; if so, specify: 	 5. Other regulatory program(s) that apply to the site MA Chapter 21e; list RTN(s): 3-32213 NH Groundwater Management Permit or Groundwater Release Detection Permit: 	□ CERCI □ UIC Pro □ POTW	LA	t	

٦

B. Receiving water information:

1. Name of receiving water(s):	Waterbody identification of receiving water(s):	Classification of receiving water(s):
Alewife Brook	Segment MA71-04	В
Receiving water is (check any that apply): Outstanding	Resource Water \Box Ocean Sanctuary \Box territorial sea \Box W	Wild and Scenic River
2. Has the operator attached a location map in accordance	with the instructions in B, above? (check one): \blacksquare Yes \Box	No
Are sensitive receptors present near the site? (check one):	■ Yes □ No	
If yes, specify: Fresh Pond Reservoir, Zone A Public Wate	er Supply Protection Area, and wetlands associated with F	Fresh Pond and Alewife Brook.
3. Indicate if the receiving water(s) is listed in the State's I pollutants indicated. Also, indicate if a final TMDL is avai 4.6 of the RGP. Alewife Brk is 303(d) listed. Impaired de	lable for any of the indicated pollutants. For more inform	nation, contact the appropriate State as noted in Part
4. Indicate the seven day-ten-year low flow (7Q10) of the Appendix V for sites located in Massachusetts and Append		o.1997 MGD
5. Indicate the requested dilution factor for the calculation accordance with the instructions in Appendix V for sites in	1 5	
6. Has the operator received confirmation from the approp If yes, indicate date confirmation received:	riate State for the 7Q10and dilution factor indicated? (che	eck one): ■ Yes □ No
7. Has the operator attached a summary of receiving water	sampling results as required in Part 4.2 of the RGP in acc	cordance 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	□ Contaminated surface water	□ The receiving water	□ Potable water; if so, indicate municipality or origin:						
Has the operator attached a summary of influent sampling results as required in Part 4.2 of the RGP	Has the operator attached a summary of influent sampling results as required in Part 4.2 of the	A surface water other							
in accordance with the instruction in Appendix VIII? (check one):	RGP in accordance with the instruction in Appendix VIII? (check one):	than the receiving water; if so, indicate waterbody:	□ Other; if so, specify:						
■ Yes □ No	\Box Yes \Box No	Wetland of Alewife Brook							

2. Source water contaminants: Inorganics, Non-Halogenated SVOCs, and Total Petroleum Hydrocarbons from former landfill/filled area.

a. For source waters that are contaminated groundwater or contaminated surface water, indicate are any contaminants present that are not included in	b. For a source water that is a surface water other than the receiving water, potable water or other, indicate any contaminants present at the maximum concentration in accordance
the RGP? (check one): \Box Yes \blacksquare No If yes, indicate the contaminant(s) and the maximum concentration present in accordance with the instructions in Appendix VIII.	with the instructions in Appendix VIII? (check one): \Box Yes \Box No
3. Has the source water been previously chlorinated or otherwise contains resid	lual chlorine? (check one): □ Yes ■ No

D. Discharge information

1. The discharge(s) is $a(n)$ (check any that apply): \blacksquare Existing discharge \square New disc	harge New source
Outfall(s):	Outfall location(s): (Latitude, Longitude)
Treated water will be discharged to one of three catch basins located along New Street adjacent to the Property. Treated water will travel via municipal storm sewer system before discharging to the storm water outfall adjacent to Alewife Brook (Little River).	42.3906067 N 71.14605 W
Discharges enter the receiving water(s) via (check any that apply):	ge to the receiving water \Box Indirect discharge, if so, specify:
\Box A private storm sewer system \blacksquare A municipal storm sewer system If the discharge enters the receiving water via a private or municipal storm sewer system	stem:
Has notification been provided to the owner of this system? (check one): \blacksquare Yes \Box N	No
Has the operator has received permission from the owner to use such system for disc obtaining permission:	sharges? (check one): \blacksquare Yes \Box No, if so, explain, with an estimated timeframe for
Has the operator attached a summary of any additional requirements the owner of the	is system has specified? (check one): □ Yes ■ No
Provide the expected start and end dates of discharge(s) (month/year): June 2019 to	o December 2019
Indicate if the discharge is expected to occur over a duration of: 🔳 less than 12 mor	ths \Box 12 months or more \Box is an emergency discharge
Has the operator attached a site plan in accordance with the instructions in D, above	? (check one): \blacksquare Yes \Box No

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

4. Influent and Effluent Characteristics

	Known	Known				In	fluent	Effluent L	imitations
Parameter	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
A. Inorganics									
Ammonia		√	1	SM 4500	750	22,300	22,300	Report mg/L	
Chloride		√	1	300	12,500	332,000	332,000	Report µg/l	
Total Residual Chlorine		√	1	SM4500-C	20	<20	0	0.2 mg/L	26 µg/L
Total Suspended Solids		√	1	SM2540D	5,000	57,000	57,000	30 mg/L	
Antimony		√	1	6010A-B	4.0	<4.0	0.0	206 µg/L	1,528 μg/L
Arsenic		√	1	6010A-B	1.0	8.25	8.25	104 µg/L	20 µg/L
Cadmium	√		1	6010A-B	0.20	< 0.20	0.00	10.2 µg/L	0.5179 μg/L
Chromium III	√		1	Calculatio+	10	<10	0	323 µg/L	421.5 μg/L
Chromium VI		√	1	3500CrB	10	<10	0	323 µg/L	27.3 μg/L
Copper		√	1	6010A-B	1.0	8.65	8.65	242 µg/L	44.5 μg/L
Iron		√	1	6010C-D	50	40,900	40,900	5,000 μg/L	1,000 µg/L
Lead		√	1	6010A-B	1.0	4.2	4.2	160 µg/L	20.16 µg/L
Mercury	√		1	7470A	0.2	<0.2	0.0	0.739 μg/L	2.16 µg/L
Nickel		√	1	6010A-B	2.0	8.44	8.44	1,450 µg/L	261.2 µg/L
Selenium	√		1	6010A-B	5.0	<5.0	0.0	235.8 µg/L	11.9 μg/L
Silver	√		1	6010A-B	0.40	<0.40	0.00	35.1 μg/L	40.7 µg/L
Zinc		√	1	6010A-B	10.0	11.64	11.64	420 μg/L	600.7 μg/L
Cyanide	√		1	SM4500C+	5	<5	0	178 mg/L	12.4 μg/L
B. Non-Halogenated VOC	s								
Total BTEX		√	1	624.1	6.0	23.3	23.3	100 µg/L	
Benzene		√	1	624.1	1.0	3.4	3.4	5.0 μg/L	
1,4 Dioxane	√		1	624.1 SIM	50	<50	0	200 µg/L	
Acetone	√		1	624.1	10	<10	0	7.97 mg/L	
Phenol	√		1	625.1	5	<5	0	1,080 µg/L	716 μg/L

	Known	Known		_		In	fluent	Effluent Limitations	
Parameter	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
C. Halogenated VOCs									
Carbon Tetrachloride	√		1	624.1	1.0	<1.0	0.0	4.4 μg/L	3.8 µg/L
1,2 Dichlorobenzene	√		1	624.1	5.0	<5.0	0.0	600 µg/L	
1,3 Dichlorobenzene	√		1	624.1	5.0	<5.0	0.0	320 μg/L	
1,4 Dichlorobenzene	1		1	624.1	5.0	<5.0	0.0	5.0 µg/L	
Total dichlorobenzene	1		1	624.1	5.0	<5.0	0.0	763 µg/L in NH	
1,1 Dichloroethane	√		1	624.1	1.5	<1.5	0.0	70 μg/L	
1,2 Dichloroethane	√		1	624.1	1.5	<1.5	0.0	5.0 µg/L	
1,1 Dichloroethylene	√		1	624.1	1.0	<1.0	0.0	3.2 µg/L	
Ethylene Dibromide	√		1	504.1	0.01	< 0.01	0.0	0.05 µg/L	
Methylene Chloride	√		1	624.1	1.0	<1.0	0.0	4.6 μg/L	
1,1,1 Trichloroethane	1		1	624.1	2.0	<2.0	0.0	200 μg/L	
1,1,2 Trichloroethane	√		1	624.1	1.5	<1.5	0.0	5.0 µg/L	
Trichloroethylene	√		1	624.1	1.0	<1.0	0.0	5.0 μg/L	
Tetrachloroethylene	1		1	624.1	1.0	<1.0	0.0	5.0 µg/L	7.9 μg/L
cis-1,2 Dichloroethylene	√		1	624.1	1.0	<1.0	0.0	70 μg/L	
Vinyl Chloride	√		1	624.1	2.0	<1.0	0.0	2.0 µg/L	
D. Non-Halogenated SVOC	Cs								
Total Phthalates		√	1	625.1	5	5.0	5.0	190 µg/L	
Diethylhexyl phthalate	√		1	625.1	2.2	<2.2	0.0	101 µg/L	5.3 μg/L
Total Group I PAHs		√	1	625.1 SIM	0.10	< 0.10	0.0	1.0 µg/L	
Benzo(a)anthracene		√	1	625.1 SIM	0.10	< 0.10	0.0		0.0091 µg/L
Benzo(a)pyrene		√	1	625.1 SIM	0.10	< 0.10	0.0	1	0.0091 µg/L
Benzo(b)fluoranthene		√	1	625.1 SIM	0.10	< 0.10	0.0	1	0.0091 µg/L
Benzo(k)fluoranthene		√	1	625.1 SIM	0.10	< 0.10	0.0	As Total PAHs	0.0091 µg/L
Chrysene		√	1	625.1 SIM	0.10	< 0.10	0.0	1	0.0091 µg/L
Dibenzo(a,h)anthracene	√		1	625.1 SIM	0.10	< 0.10	0.0	1	0.0091 µg/L
Indeno(1,2,3-cd)pyrene		√	1	625.1 SIM	0.10	< 0.10	0.0	1	00.0091 µg/L

Parameter	Known	10wn Known			Influent		Effluent Limitations		
	or believed absent	or believed present	# of samples	Test method (#)	Detection limit (µg/l)	Daily maximum (µg/l)	Daily average (µg/l)	TBEL	WQBEL
Total Group II PAHs		√	1	625.1 SIM	0.10	5.89	5.89	100 µg/L	
Naphthalene		√	1	625.1 SIM	0.10	2.7	2.7	20 µg/L	
E. Halogenated SVOCs									
Total PCBs	√		1	608.3	0.250	< 0.250	0.000	0.000064 µg/L	
Pentachlorophenol	√		1	625.1 SIM	1.0	<1.0	0.0	1.0 µg/L	
F. Fuels Parameters									
Total Petroleum Hydrocarbons	✓		1	1664A	4,000	<4,000	0	5.0 mg/L	
Ethanol	√		1	1671A	2,000	<2,000	0	Report mg/L	
Methyl-tert-Butyl Ether	√		1	624.1	10	<10	0	70 µg/L	48 µg/L
tert-Butyl Alcohol	~		1	624.1	100	<100	0	120 μg/L in MA 40 μg/L in NH	
tert-Amyl Methyl Ether	~		1	624.1	20	<20	0	90 μg/L in MA 140 μg/L in NH	
			addition]]]	te procont).	if so specify.			
Other (i.e., pH, temperatur Chromium (Total)	re, hardness,	salinity, LC	1	200.8	1	1.5	1.5		
Other (i.e., pH, temperatur Chromium (Total) pH	re, hardness,		1 1		1 NA		1.5 7.4		
Chromium (Total)	re, hardness,	1	1	200.8	1	1.5			
Chromium (Total)	re, hardness,	1	1	200.8	1	1.5			
Chromium (Total)	re, hardness,	1	1	200.8	1	1.5			
Chromium (Total)	re, hardness,	1	1	200.8	1	1.5			
Chromium (Total)		1	1	200.8	1	1.5			
Chromium (Total)		1	1	200.8	1	1.5			
Chromium (Total)		1	1	200.8	1	1.5			
Chromium (Total)		1	1	200.8	1	1.5			
Chromium (Total)		1	1	200.8	1	1.5			

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 Adsorpt	ion				
🗆 Ion Exchange 🗆 Precipitation/Coagulation/Flocculation 🔳 Separation/Filtration 🗏 Other; if so, specify: Flocculation via Floc Blocs, if necessary.					
2. Provide a written description of all treatment system(s) or processes that will be applied to the effluent prior to discharge.					
The dewatering system consists of pumps to remove the water, a settling tank, and bag filters. Additional treatment will be conducted as necessary to meet the RGP di requirements. See attached Figures for schematic of treatment system.	scharge				
Identify each major treatment component (check any that apply):					
Eractionation 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 Filter					
Is use of a flow meter feasible? (check one): ■ Yes □ No, if so, provide justification:					
Provide the proposed maximum effluent flow in gpm.	100				
Provide the average effluent flow in gpm.	75				
If Activity Category IV applies, indicate the estimated total volume of water that will be discharged:	NA				
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 \Box pH conditioners \Box Bioremedial agents, including microbes \Box Chlorine or chemicals containing chlorine \Box Other; if so, specify:

NA

2. Provide the following information for each chemical/additive, using attachments, if necessary:

NA

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

J. Certification requirement

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I have no personal knowledge that the information submitted is other than true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

A BMPP meeting the requirements of the Remediation General Permit will be developed and BMPP certification statement: implemented upon 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 ore): $\Box RGP \Box DGP \Box CGP \Box MSGP \Box$ Individual NPDES permit \Box Other, if so, specify:	Check one: Yes 🗆 No 🗆 NA 🛢
	ate: 6-25-19
int Name and Title: Rob NUNE?	

ATTACHMENT B

ENDANGERED SPECIES ACT DOCUMENTATION



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 <u>http://www.fws.gov/newengland</u>



In Reply Refer To: Consultation Code: 05E1NE00-2019-SLI-1785 Event Code: 05E1NE00-2019-E-04392 Project Name: Park 77 EPA RGP Discharge May 23, 2019

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:	05E1NE00-2019-SLI-1785
Event Code:	05E1NE00-2019-E-04392
Project Name:	Park 77 EPA RGP Discharge
Project Type:	DEVELOPMENT
Project Description:	Discharge activities associated with residential building construction on New Street in Cambridge, MA. Treated effluent to be discharged under EPA RGP.

Project Location:

Approximate location of the project can be viewed in Google Maps: <u>https://www.google.com/maps/place/42.39699916924387N71.14578988580347W</u>



Counties: Middlesex, MA

Endangered Species Act Species

There is a total of 0 threatened, endangered, or candidate species on this species list.

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

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

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

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

Critical habitats

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

IPaC Information for Planning and Consultation U.S. Fish & Wildlife Service

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as trust resources) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional sitespecific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional CONSULT information applicable to the trust resources addressed in that section.

Project information

NAME

Park 77 EPA RGP Discharge

LOCATION

Middlesex County, Massachusetts



DESCRIPTION

Discharge

activities associated with residential building construction on New Street in Cambridge, MA. Treated effluent to be discharged under EPA RGP.

Local office

New England Ecological Services Field Office

(603) 223-2541
(603) 223-0104

70 Commercial Street, Suite 300 Concord, NH 03301-5094

http://www.fws.gov/newengland

NOTFORCONSULTATION

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population, even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

- 1. Log in to IPaC.
- 2. Go to your My Projects list.
- 3. Click PROJECT HOME for this project.
- 4. Click REQUEST SPECIES LIST.

Listed species

¹ and their critical habitats are managed by the <u>Ecological Services Program</u> of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact <u>NOAA Fisheries</u> for <u>species under their jurisdiction</u>.

- 1. Species listed under the <u>Endangered Species Act</u> are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the <u>listing status page</u> for more information.
- 2. <u>NOAA Fisheries</u>, also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

THERE ARE NO ENDANGERED SPECIES EXPECTED TO OCCUR AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act

¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described <u>below</u>.

- 1. The <u>Migratory Birds Treaty Act</u> of 1918.
- 2. The <u>Bald and Golden Eagle Protection Act</u> of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <u>http://www.fws.gov/birds/management/managed-species/</u> birds-of-conservation-concern.php
- Measures for avoiding and minimizing impacts to birds <u>http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/</u> <u>conservation-measures.php</u>
- Nationwide conservation measures for birds http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf

The birds listed below are birds of particular concern either because they occur on the <u>USFWS Birds of</u> <u>Conservation Concern</u> (BCC) list or warrant special attention in your project location. To learn more about the levels of concern for birds on your list and how this list is generated, see the FAQ <u>below</u>. This is not a list of every bird you may find in this location, nor a guarantee that every bird on this list will be found in your project area. To see exact locations of where birders and the general public have sighted birds in and around your project area, visit the <u>E-bird data mapping tool</u> (Tip: enter your location, desired date range and a species on your list). For projects that occur off the Atlantic Coast, additional maps and models detailing the relative occurrence and abundance of bird species on your list are available. Links to additional information about Atlantic Coast birds, and other important information about your migratory bird list, including how to properly interpret and use your migratory bird report, can be found <u>below</u>.

For guidance on when to schedule activities or implement avoidance and minimization measures to reduce impacts to migratory birds on your list, click on the PROBABILITY OF PRESENCE SUMMARY at the top of your list to see when these birds are most likely to be present and breeding in your project area.

NAME

BREEDING SEASON (IF A BREEDING SEASON IS INDICATED FOR A BIRD ON YOUR LIST, THE BIRD MAY BREED IN YOUR PROJECT AREA SOMETIME WITHIN THE TIMEFRAME SPECIFIED, WHICH IS A VERY LIBERAL ESTIMATE OF THE DATES INSIDE WHICH THE BIRD BREEDS ACROSS ITS ENTIRE RANGE. "BREEDS ELSEWHERE" INDICATES THAT THE BIRD DOES

	NOT LIKELY BREED IN YOUR PROJECT AREA.)
Bald Eagle Haliaeetus leucocephalus This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities. https://ecos.fws.gov/ecp/species/1626	Breeds Oct 15 to Aug 31
Black-billed Cuckoo Coccyzus erythropthalmus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9399</u>	Breeds May 15 to Oct 10
Bobolink Dolichonyx oryzivorus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Jul 31
Canada Warbler Cardellina canadensis This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 20 to Aug 10
Cerulean Warbler Dendroica cerulea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/2974</u>	Breeds Apr 29 to Jul 20
Dunlin Calidris alpina arcticola This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA	Breeds elsewhere
Evening Grosbeak Coccothraustes vespertinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Kentucky Warbler Oporornis formosus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 20 to Aug 20
Lesser Yellowlegs Tringa flavipes This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska. <u>https://ecos.fws.gov/ecp/species/9679</u>	Breeds elsewhere
Nelson's Sparrow Ammodramus nelsoni This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 15 to Sep 5

Prairie Warbler Dendroica discolor This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 1 to Jul 31
Prothonotary Warbler Protonotaria citrea This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds Apr 1 to Jul 31
Red-headed Woodpecker Melanerpes erythrocephalus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Sep 10
Red-throated Loon Gavia stellata This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Rusty Blackbird Euphagus carolinus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Semipalmated Sandpiper Calidris pusilla This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Snowy Owl Bubo scandiacus This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds elsewhere
Wood Thrush Hylocichla mustelina This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.	Breeds May 10 to Aug 31

Probability of Presence Summary

The graphs below provide our best understanding of when birds of concern are most likely to be present in your project area. This information can be used to tailor and schedule your project activities to avoid or minimize impacts to birds. Please make sure you read and understand the FAQ "Proper Interpretation and Use of Your Migratory Bird Report" before using or attempting to interpret this report.

Probability of Presence (

Each green bar represents the bird's relative probability of presence in the 10km grid cell(s) your project overlaps during a particular week of the year. (A year is represented as 12 4-week months.) A taller bar indicates a higher probability of species presence. The survey effort (see below) can be used to establish a level of confidence in the presence score. One can have higher confidence in the presence score if the corresponding survey effort is also high.

How is the probability of presence score calculated? The calculation is done in three steps:

- 1. The probability of presence for each week is calculated as the number of survey events in the week where the species was detected divided by the total number of survey events for that week. For example, if in week 12 there were 20 survey events and the Spotted Towhee was found in 5 of them, the probability of presence of the Spotted Towhee in week 12 is 0.25.
- 2. To properly present the pattern of presence across the year, the relative probability of presence is calculated. This is the probability of presence divided by the maximum probability of presence across all weeks. For example, imagine the probability of presence in week 20 for the Spotted Towhee is 0.05, and that the probability of presence at week 12 (0.25) is the maximum of any week of the year. The relative probability of presence on week 12 is 0.25/0.25 = 1; at week 20 it is 0.05/0.25 = 0.2.
- 3. The relative probability of presence calculated in the previous step undergoes a statistical conversion so that all possible values fall between 0 and 10, inclusive. This is the probability of presence score.

To see a bar's probability of presence score, simply hover your mouse cursor over the bar.

Breeding Season (=)

Yellow bars denote a very liberal estimate of the time-frame inside which the bird breeds across its entire range. If there are no yellow bars shown for a bird, it does not breed in your project area.

Survey Effort (I)

Vertical black lines superimposed on probability of presence bars indicate the number of surveys performed for that species in the 10km grid cell(s) your project area overlaps. The number of surveys is expressed as a range, for example, 33 to 64 surveys.

To see a bar's survey effort range, simply hover your mouse cursor over the bar.

No Data (--)

A week is marked as having no data if there were no survey events for that week.

Survey Timeframe

Surveys from only the last 10 years are used in order to ensure delivery of currently relevant information. The exception to this is areas off the Atlantic coast, where bird returns are based on all years of available data, since data in these areas is currently much more sparse.

				🔳 proł	oability o	of presen	ice <mark>=</mark> b	reeding	season	survey	effort	— no data
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Bald Eagle Non-BCC Vulnerable (This is not a Bird of Conservation Concern (BCC) in this area, but warrants attention because of the Eagle Act or for potential susceptibilities in offshore areas from certain types of development or activities.)	++++	1111	H HHH	++++	 	****	1111	****	++++	+++	++++	

Page 8 of 13

Black-billed Cuckoo BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.) Bobolink BCC Rangewide (CON) (This is a Bird of **Conservation Concern** (BCC) throughout its range in the continental USA and Alaska.) Canada Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.) Cerulean Warbler ++++ ++++ ++++BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.) Dunlin BCC - BCR (This is a Bird of Conservation Concern (BCC) only in particular Bird Conservation Regions (BCRs) in the continental USA) **Evening Grosbeak** BCC Rangewide (CON) (This is a Bird of **Conservation Concern** (BCC) throughout its range in the continental USA and Alaska.) Kentucky Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.) Lesser Yellowlegs BCC Rangewide (CON) (This is a Bird of **Conservation Concern** (BCC) throughout its range in the continental USA and Alaska.)

┼┼┼┼ ┼┼┼┼ ┼┼┼╪ ┿╪╪╪ ╂╂╂╂ ╋╋ ┼┼┼┼╶┼┼┼┼╶┼┼┼┿╺<mark>┿╪</mark>┼╴╏╏╿╿ <u>++++</u> ++++ ++++ +++++ +******** ++++ ++++ ++++ ++++ ++++ ++++ · +++++ ++++++ ┼┼┼┼╶┼┼┼┼╶┼┼┟┼╺╪╪┟┼╶┟┼╂╂╶╂╂╂╂╶┟┟╢┼╴┼┼┼┼╶┼┼┼┤╶┼┼┼╴┼┼┼┼

Nelson's Sparrow BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++++	┼╂╂╂	 	 	₩₩	<mark>┨</mark> ┼┿┼	++++	++++	++++
Prairie Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++ + #	₩ ₩₩	 	++++	+++++	++++	₩ <u>+</u> +++	++++	++++
Prothonotary Warbler BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	<u>+</u> +++	₩ <u></u>	++++	++++	++++	++++	++++ 5	0	++++ /
SPECIES	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Red-headed Woodpecker BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	***+	# <u>+</u> <u>+</u> <u>+</u> <u>+</u>		++++ C			- MI	MH	<mark>+]</mark> ++	++++	++++	++ # #
Red-throated Loon BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++ <	JHF	HH.	+ +++	++++	++++	++++	++++	++++	++++	+++	∳ +++
Rusty Blackbird BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	┼┿┼┿	++++	+ +++	++++	++++	++++	+++#	++++	\$ \$	++++
Semipalmated Sandpiper BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)	++++	++++	++++	++++	++++	++++	+++#	****	₩ <u>+</u> +++	++++	++++	++++

Snowy Owl BCC Rangewide (CON) (This is a Bird of Conservation Concern (BCC) throughout its range in the continental USA and Alaska.)

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

<u>Nationwide Conservation Measures</u> describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. <u>Additional measures</u> and/or <u>permits</u> may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS <u>Birds of Conservation Concern (BCC)</u> and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the <u>Avian Knowledge Network</u> (<u>AKN</u>). The AKN data is based on a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science datasets</u> and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle (<u>Eagle Act</u> requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the <u>AKN Phenology Tool</u>.

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the <u>Avian</u> <u>Knowledge Network (AKN)</u>. This data is derived from a growing collection of <u>survey</u>, <u>banding</u>, <u>and citizen science</u> <u>datasets</u>.

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or yearround), you may refer to the following resources: <u>The Cornell Lab of Ornithology All About Birds Bird Guide</u>, or (if you are unsuccessful in locating the bird of interest there), the <u>Cornell Lab of Ornithology Neotropical Birds guide</u>. If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

- 1. "BCC Rangewide" birds are <u>Birds of Conservation Concern</u> (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
- 2. "BCC BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
- 3. "Non-BCC Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the <u>Eagle Act</u> requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the <u>Northeast Ocean Data Portal</u>. The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the <u>NOAA NCCOS</u> <u>Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf</u> project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the <u>Diving Bird Study</u> and the <u>nanotag studies</u> or contact <u>Caleb Spiegel</u> or <u>Pam Loring</u>.

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to <u>obtain a permit</u> to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in

knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the National Wildlife Refuge system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to ULTATION discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

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

NS

For more information please contact the Regulatory Program of the local U.S. Army Corps of Engineers District.

Please note that the NWI data being shown may be out of date. We are currently working to update our NWI data set. We recommend you verify these results with a site visit to determine the actual extent of wetlands on site.

This location overlaps the following wetlands:

FRESHWATER EMERGENT WETLAND PEM1C

RIVERINE

R2UBHx

A full description for each wetland code can be found at the National Wetlands Inventory website

Data limitations

https://ecos.fws.gov/ipac/project/DTG2QLUJBRFDVGL7QBAS7QIRBU/resources

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

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

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

Data exclusions

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

Data precautions

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

ATTACHMENT C

NATIONAL HISTORIC PRESERVATION ACT DOCUMENTATION

Massachusetts Cultural Resource Information System

MACRIS Search Results

Search Criteria: Town(s): Cambridge; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
CAM.A	Cambridge Common Historic District		Cambridge	
CAM.B	Lockhart, William L. and Company Coffin Factory		Cambridge	
CAM.C	Blake and Knowles Steam Pump Company		Cambridge	
CAM.D	Fort Washington Historic District		Cambridge	
CAM.E	East Cambridge Historic District		Cambridge	
CAM.F	Winter Street Historic District		Cambridge	
CAM.G	Cambridge Multiple Resource Area		Cambridge	
CAM.H	Lechmere Point Corporation Houses		Cambridge	
CAM.I	Sacred Heart Church, Rectory, School and Convent		Cambridge	
CAM.J	Upper Magazine Street Historic District		Cambridge	
CAM.K	Hastings Square Historic District		Cambridge	
CAM.L	Salem - Auburn Streets Historic District		Cambridge	
CAM.M	Inman Square Historic District		Cambridge	
CAM.N	Old Cambridgeport Historic District		Cambridge	
CAM.O	Norfolk Street Historic District		Cambridge	
CAM.P	Massachusetts Institute of Technology		Cambridge	
CAM.Q	Central Square Historic District		Cambridge	
CAM.R	Bigelow Street Historic District		Cambridge	
CAM.S	Garfield Street Historic District		Cambridge	
CAM.T	Harvard Street Historic District		Cambridge	
CAM.U	Kirkland Place Historic District		Cambridge	
CAM.V	Maple Avenue Historic District		Cambridge	
CAM.W	City Hall Historic District		Cambridge	
CAM.X	Shady Hill Historic District		Cambridge	
CAM.Y	Ash Street Historic District		Cambridge	
CAM.Z	Avon Hill Historic District		Cambridge	

Inv. No.	Property Name	Street	Town	Year
CAM.AA	Berkeley Street Historic District		Cambridge	
CAM.AB	Harvard Square Historic District		Cambridge	
CAM.AC	Harvard Houses Historic District		Cambridge	
CAM.AD	Harvard Yard Historic District		Cambridge	
CAM.AE	Old Cambridge Historic District		Cambridge	
CAM.AF	Gray Gardens East and West Historic District		Cambridge	
CAM.AG	Memorial Drive Apartments Historic District		Cambridge	
CAM.AH	Follen Street Historic District		Cambridge	
CAM.AI	Bennink - Douglas Cottages		Cambridge	
CAM.AJ	Charles River Basin Historic District		Cambridge	
CAM.AK	Boston Woven Hose and Rubber Complex		Cambridge	
CAM.AL	Fresh Pond		Cambridge	
CAM.AM	Old Cambridge Historic District		Cambridge	
CAM.AN	Harvard Riverfront		Cambridge	
CAM.AO	East Cambridge		Cambridge	
CAM.AP	Hubbard Park Historic District		Cambridge	
CAM.AQ	Davenport - Allen and Endicott Factory		Cambridge	
CAM.AR	Mount Auburn Cemetery		Cambridge	
CAM.AS	Metropolitan Park System of Greater Boston		Cambridge	
CAM.AT	Elmwood (James Russell Lowell House)		Cambridge	
CAM.AU	Christ Church		Cambridge	
CAM.AV	Blake and Knowles Steam Pump Company		Cambridge	
CAM.AW	Alewife Brook Parkway		Cambridge	
CAM.AX	Fresh Pond Parkway		Cambridge	
CAM.AY	Church of the Blessed Sacrament Catholic Church		Cambridge	
CAM.AZ	Immaculate Conception Roman Catholic Church		Cambridge	
CAM.BA	Immaculate Conception (Lithuanian) Catholic Church		Cambridge	
CAM.BB	Orchard Street Area		Cambridge	
CAM.BC	Central Square Historic District		Cambridge	
CAM.BD	Cambridge Common Historic District		Cambridge	
CAM.BE	Old Harvard Yard		Cambridge	
CAM.BF	Berkeley Street Historic District		Cambridge	
CAM.BG	Harvard Square Historic District		Cambridge	
CAM.BH	Volpe Center		Cambridge	
CAM.1	Wyeth, John House	56 Aberdeen Ave	Cambridge	1841
CAM.1009		24 Agassiz St	Cambridge	1889

Inv. No.	Property Name	Street	Town	Year
CAM.1010	Shaw, Edward L. House	30 Agassiz St	Cambridge	1890
CAM.1011	Sands, M. Winslow House	32 Agassiz St	Cambridge	1891
CAM.1012	Blackman, Horace House	33 Agassiz St	Cambridge	1890
CAM.1353	Standard Plate Glass Company Building	270 Albany St	Cambridge	1920
CAM.902	Alewife Brook Parkway Bridge over B & M Railroad	Alewife Brook Pkwy	Cambridge	1929
CAM.903	Alewife Brook Parkway Bridge over B & M Railroad	Alewife Brook Pkwy	Cambridge	1929
CAM.9012	Alewife Brook Parkway - Northern Segment	Alewife Brook Pkwy	Cambridge	1908
CAM.9013	Alewife Brook Parkway Tree Border	Alewife Brook Pkwy	Cambridge	r 1920
CAM.1372	Immaculate Conception Roman Catholic Church	45 Alewife Brook Pkwy	Cambridge	1929
CAM.1373	Immaculate Conception Catholic Church Rectory	45 Alewife Brook Pkwy	Cambridge	1935
CAM.359		6-24 Allston St	Cambridge	1946
CAM.2	Fay, Isaac House	125 Antrim St	Cambridge	1843
CAM.3	Withey, S. B. House	10 Appian Way	Cambridge	1855
CAM.4	Howe, Lois Lilly House	6 Appleton St	Cambridge	1887
CAM.5	Cook, William House	71 Appleton St	Cambridge	1876
CAM.1016		8-10 Arlington St	Cambridge	1864
CAM.1027	Aldrich, Frank A. House	11 Arlington St	Cambridge	1899
CAM.1017		12-14 Arlington St	Cambridge	1864
CAM.1028	Graustein, Adolph H. House	19 Arlington St	Cambridge	1902
CAM.1018		22 Arlington St	Cambridge	1862
CAM.1019	Fillmore, Wellington House	24 Arlington St	Cambridge	1869
CAM.1347		25 Arlington St	Cambridge	
CAM.1020	Moor, Rev. Clark House	26 Arlington St	Cambridge	1869
CAM.1021	Blackman, Horace P. House	28 Arlington St	Cambridge	1876
CAM.1022		30 Arlington St	Cambridge	1876
CAM.1023	Jameson, Edwin A. L. House	32 Arlington St	Cambridge	1872
CAM.1029	Davis, John House	33 Arlington St	Cambridge	1869
CAM.1024		36 Arlington St	Cambridge	1872
CAM.1030	Kelsey, Albert House	37 Arlington St	Cambridge	1875
CAM.1025	Moor, Rev. Clark Double House	38-40 Arlington St	Cambridge	1874
CAM.1026	Boardman, Charles House	42 Arlington St	Cambridge	1871
CAM.1061	Harvard Catholic Student Center	20 Arrow St	Cambridge	c 1890
CAM.1062	Saint Paul's Church	24 Arrow St	Cambridge	r 1920
CAM.784	Brooks, John House	5 Ash St	Cambridge	1887
CAM.6	Johnson, Philip House	9 Ash St	Cambridge	1942
CAM.785	Ela, Lucia House	13 Ash St	Cambridge	1869

Inv. No.	Property Name	Street	Town	Year
CAM.787	Eliot, T. S. House	16 Ash St	Cambridge	1855
CAM.786	Nowell, Henry House	19 Ash St	Cambridge	1825
CAM.788	Hunnewell, James A. House	6 Ash Street Pl	Cambridge	1848
CAM.522		107 Auburn St	Cambridge	1803
CAM.523		108-110 Auburn St	Cambridge	1803
CAM.524		114 Auburn St	Cambridge	c 1844
CAM.525		119 Auburn St	Cambridge	c 1829
CAM.526		122 Auburn St	Cambridge	c 1840
CAM.527		131 Auburn St	Cambridge	c 1830
CAM.528		134 Auburn St	Cambridge	c 1845
CAM.7	Ellis, Asa House	158 Auburn St	Cambridge	1805
CAM.564	Hotel Eliot	66 Austin St	Cambridge	c 1885
CAM.565	Hotel Austin	70 Austin St	Cambridge	c 1885
CAM.8	Brabrook, Ezra H. House	42-44 Avon St	Cambridge	1849
CAM.352	Blake and Knowles Main Foundry	180 Bent St	Cambridge	c 1895
CAM.1035		1 Berkeley Pl	Cambridge	1892
CAM.1036		2 Berkeley Pl	Cambridge	1892
CAM.1037		3 Berkeley Pl	Cambridge	1892
CAM.1038		4 Berkeley Pl	Cambridge	1910
CAM.1039		5 Berkeley Pl	Cambridge	1900
CAM.1040		6 Berkeley Pl	Cambridge	1914
CAM.1041		7 Berkeley Pl	Cambridge	1913
CAM.1042		8 Berkeley Pl	Cambridge	1931
CAM.1043	Pryor - Brown House	1 Berkeley St	Cambridge	1852
CAM.10	Thayer, Prof. Studio	2 1/2 Berkeley St	Cambridge	1894
CAM.1044	Pryor - Howells House	3 Berkeley St	Cambridge	1856
CAM.1045	Dana, Richard H. House	4 Berkeley St	Cambridge	1851
CAM.1046	Wyeth - Allen House	5-7R Berkeley St	Cambridge	1852
CAM.1047		6 Berkeley St	Cambridge	1853
CAM.1048	Ware, Henry House	8 Berkeley St	Cambridge	1859
CAM.1049	Allyn, John House	11 Berkeley St	Cambridge	1886
CAM.1050		12 Berkeley St	Cambridge	1881
CAM.1051		13 Berkeley St	Cambridge	1898
CAM.1052	Williston, Lyman House	15 Berkeley St	Cambridge	1863
CAM.1053		16 Berkeley St	Cambridge	1905
CAM.1054		17 Berkeley St	Cambridge	1863
CAM.1055		19 Berkeley St	Cambridge	1854
CAM.1056	Newell, William House	20 Berkeley St	Cambridge	1856
Thursday, Ma	ay 23, 2019			Page 4 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1057		21 Berkeley St	Cambridge	1854
CAM.1058	Fiske, John House	22 Berkeley St	Cambridge	1877
CAM.1059		23 Berkeley St	Cambridge	1854
CAM.1060		24 Berkeley St	Cambridge	1936
CAM.1355	Craft, William House	5 Bigelow St	Cambridge	1869
CAM.1356	Sharry, William J. House	5A Bigelow St	Cambridge	1940
CAM.663	Montague, Charles House	6 Bigelow St	Cambridge	1873
CAM.655	Snow, Simeon House	7 Bigelow St	Cambridge	1869
CAM.1360	Rhodes, Silas Jr. House	8 Bigelow St	Cambridge	1871
CAM.656	Pollard, John Double House	9-11 Bigelow St	Cambridge	1874
CAM.664	Hurd, Theodore House	10-12 Bigelow St	Cambridge	1884
CAM.657	Bird, Henry House	13 Bigelow St	Cambridge	1874
CAM.1361	Pike, Walter House	14 Bigelow St	Cambridge	1888
CAM.658	Davis, Curtis House	15 Bigelow St	Cambridge	1873
CAM.1362	Brazier, Abbie House	16 Bigelow St	Cambridge	1874
CAM.659	Whitely, Hiram House	17 Bigelow St	Cambridge	1873
CAM.1363	Sawyer - Dole House	18 Bigelow St	Cambridge	1876
CAM.1357	Oxford, Charles House	19 Bigelow St	Cambridge	1871
CAM.660	Snow - Twitchell Double House	21-23 Bigelow St	Cambridge	1873
CAM.665	Hyde, Edward House	22 Bigelow St	Cambridge	1870
CAM.1348	Robbins Block	24-46 Bigelow St	Cambridge	1871
CAM.661	Jessop, Joseph House	25 Bigelow St	Cambridge	1872
CAM.1358	Jessop Tenement House	29 Bigelow St	Cambridge	1891
CAM.1359	Whitcomb, Peter Double House	31-33 Bigelow St	Cambridge	1872
CAM.662	Davis, John W. House	35 Bigelow St	Cambridge	1870
CAM.1406	Volpe Center - Shipping and Receiving	182 Binney St	Cambridge	1965
CAM.357	Blake and Knowles Machine Shop #2	195 Binney St	Cambridge	1917
CAM.358	Blake and Knowles Machine Shop #3	199 Binney St	Cambridge	1918
CAM.356	Blake and Knowles Erecting and Assembling Building	201 Binney St	Cambridge	1903
CAM.1388		39 Bishop Allen Dr	Cambridge	
CAM.1397	Hotel Greyburn	77 Bishop Allen Dr	Cambridge	1891
CAM.577	Young Women's Christian Association Building	146 Bishop Allen Dr	Cambridge	c 1954
CAM.1386	Squirrel Brand Company Building	8 Boardman St	Cambridge	1915
CAM.11	Slowey, Patrick House	73 Bolton St	Cambridge	1852
CAM.1063	Bicycle Exchange Building	3-7 Bow St	Cambridge	1901
CAM.1064		9 Bow St	Cambridge	1884
CAM.1065	Farwell - Russell, Thomas Store	12 Bow St	Cambridge	c 1830

Inv. No.	Property Name	Street	Town	Year
CAM.1066	Westmorly Court - Harvard University	15-29 Bow St	Cambridge	c 1898
CAM.12	Harvard Lampoon Building	44 Bow St	Cambridge	1909
CAM.1067	Randolph Hall - Harvard University	47-57 Bow St	Cambridge	1897
CAM.13	Frost, Elizabeth Tenant House	35 Bowdoin St	Cambridge	1812
CAM.926	Anderson, Larz Bridge	Boylston St	Cambridge	1915
CAM.14	Hicks, John House	64 Boylston St	Cambridge	c 1761
CAM.294	Radcliffe College Graduate Center	Brattle St	Cambridge	1955
CAM.918	Longfellow Park	Brattle St	Cambridge	1887
CAM.987	Lowell Park	Brattle St	Cambridge	
CAM.1068	Brattle Building	4 Brattle St	Cambridge	1913
CAM.1069	Atrium Building	9-11 Brattle St	Cambridge	1979
CAM.1071		12-16 Brattle St	Cambridge	1887
CAM.1070	Estes Block	13-15 Brattle St	Cambridge	1875
CAM.1072	Dow Block	17-35 Brattle St	Cambridge	c 1936
CAM.1073		18 Brattle St	Cambridge	1922
CAM.1074		26 Brattle St	Cambridge	1909
CAM.1075	Hadley Building	28-36 Brattle St	Cambridge	1974
CAM.1076	Cambridge Federal Savings Bank	38A Brattle St	Cambridge	1937
CAM.1077		39-41 Brattle St	Cambridge	1925
CAM.15	Brattle Hall	40 Brattle St	Cambridge	1889
CAM.1078		40A Brattle St	Cambridge	c 1925
CAM.16	Brattle, William House	42 Brattle St	Cambridge	c 1727
CAM.1079	Sage Building	43-45 Brattle St	Cambridge	1926
CAM.1080		44 Brattle St	Cambridge	1970
CAM.1081		46R Brattle St	Cambridge	1966
CAM.1082		47-49 Brattle St	Cambridge	c 1926
CAM.1083	Design Research Building	48 Brattle St	Cambridge	1969
CAM.1084	Washington Court	51 Brattle St	Cambridge	1905
CAM.17	Pratt, Dexter House	54 Brattle St	Cambridge	1808
CAM.1229	Warland, John House	69 Brattle St	Cambridge	1838
CAM.1230	Greenleaf, James House	76 Brattle St	Cambridge	1859
CAM.1228	Chamberlin, John House	77 Brattle St	Cambridge	1821
CAM.18	Radcliffe College Alumnae House	79 Brattle St	Cambridge	1836
CAM.19	Wadsworth Chambers	81-83 Brattle St	Cambridge	1908
CAM.20	Burleigh House	85 Brattle St	Cambridge	1847
CAM.21	Stoughton, Mary Fisk House	90 Brattle St	Cambridge	1882
CAM.22		92 Brattle St	Cambridge	1882
CAM.23	Vassall, Henry House	94 Brattle St	Cambridge	1635
Thursday, Ma	ny 23, 2019			Page 6 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.24	Episcopal Divinity School - Washburn Hall	99 Brattle St	Cambridge	1960
CAM.25	Saint John's Chapel	99 Brattle St	Cambridge	1868
CAM.26	Episcopal Divinity School Library - Sherrill Hall	99 Brattle St	Cambridge	1965
CAM.27	Episcopal Divinity School - Wright Hall	99 Brattle St	Cambridge	1911
CAM.28	Episcopal Divinity School - Reed Hall	99 Brattle St	Cambridge	1873
CAM.29	Episcopal Divinity School - Lawrence Hall	99 Brattle St	Cambridge	1873
CAM.30	Episcopal Divinity School - Burnham Hall	99 Brattle St	Cambridge	1879
CAM.31	Hastings, Oliver House	101 Brattle St	Cambridge	1844
CAM.32	Longfellow National Historic Site	105 Brattle St	Cambridge	c 1759
CAM.33	Dana, Edith Longfellow House	113 Brattle St	Cambridge	1887
CAM.34		114 Brattle St	Cambridge	1903
CAM.35	Thorp, Annie Longfellow House	115 Brattle St	Cambridge	1887
CAM.36	Worcester, Joseph House	121 Brattle St	Cambridge	1843
CAM.37		121A Brattle St	Cambridge	1941
CAM.38		123 Brattle St	Cambridge	
CAM.39		124 Brattle St	Cambridge	1915
CAM.40		125 Brattle St	Cambridge	1939
CAM.41		126 Brattle St	Cambridge	1890
CAM.1235		127 Brattle St	Cambridge	1970
CAM.42		128 Brattle St	Cambridge	1892
CAM.43		130-130R Brattle St	Cambridge	1886
CAM.44		132 Brattle St	Cambridge	1886
CAM.45	Falxa, Dr. Martin House	133 Brattle St	Cambridge	1970
CAM.46		134-136 Brattle St	Cambridge	1857
CAM.47		138 Brattle St	Cambridge	1930
CAM.48		140 Brattle St	Cambridge	1930
CAM.49		142 Brattle St	Cambridge	1915
CAM.50	Cambridge Armenian Church	143 Brattle St	Cambridge	1959
CAM.51		144 Brattle St	Cambridge	1915
CAM.52	Brewster, William House	145 Brattle St	Cambridge	1887
CAM.53		146 Brattle St	Cambridge	1939
CAM.54		147 Brattle St	Cambridge	1887
CAM.55		148 Brattle St	Cambridge	1914
CAM.56	Lechmere, Richard House	149 Brattle St	Cambridge	c 1762
CAM.57		150 Brattle St	Cambridge	1908
CAM.58		152 Brattle St	Cambridge	1887
CAM.59	Lee, Thomas House	153 Brattle St	Cambridge	1803
CAM.60		154 Brattle St	Cambridge	r 1865
Thursday, Ma	ay 23, 2019			Page 7 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1236		155 Brattle St	Cambridge	1889
CAM.61		156 Brattle St	Cambridge	1867
CAM.62		158 Brattle St	Cambridge	1884
CAM.63	Hooper - Lee - Nichols House	159 Brattle St	Cambridge	c 1685
CAM.64		160 Brattle St	Cambridge	1884
CAM.65		164 Brattle St	Cambridge	1868
CAM.1237	Bartlett, John House	165 Brattle St	Cambridge	1873
CAM.66	Van Brunt, Henry House	167 Brattle St	Cambridge	1883
CAM.67		168 Brattle St	Cambridge	1888
CAM.68	Wells, Judge Daniel House	170 Brattle St	Cambridge	1852
CAM.69		174 Brattle St	Cambridge	1885
CAM.70	Marrett - Ruggles - Fayerweather House	175 Brattle St	Cambridge	r 1765
CAM.1238	Fayerweather House Squash Court and Garage	177 Brattle St	Cambridge	1915
CAM.71		180 Brattle St	Cambridge	1888
CAM.72	Richards, R. A. House	182 Brattle St	Cambridge	1895
CAM.73		190 Brattle St	Cambridge	1898
CAM.74	Frankfurter, Justice Felix House	192 Brattle St	Cambridge	1907
CAM.75		193 Brattle St	Cambridge	1893
CAM.76		194 Brattle St	Cambridge	1917
CAM.77		195 Brattle St	Cambridge	1896
CAM.78		198 Brattle St	Cambridge	1912
CAM.79	Stubbins, Hugh House	199 Brattle St	Cambridge	1966
CAM.80		200 Brattle St	Cambridge	1901
CAM.81		202 Brattle St	Cambridge	1903
CAM.82		205 Brattle St	Cambridge	r 1925
CAM.83		209 Brattle St	Cambridge	r 1925
CAM.84		213-215 Brattle St	Cambridge	1896
CAM.85	Frost, Robert House	29-35 Brewster St	Cambridge	1884
CAM.1402	Volpe Center - Auditorium	33 Broadway	Cambridge	c 1965
CAM.1409	Close, George Candy Manufacturing Company Building	243 Broadway	Cambridge	1910
CAM.86	Cambridge Public Library	449 Broadway	Cambridge	1888
CAM.515		301 Brookline Ave	Cambridge	1869
CAM.516		302 Brookline Ave	Cambridge	1887
CAM.517		308 Brookline Ave	Cambridge	1870
CAM.623	Southwick Block	11-19 Brookline St	Cambridge	1911
CAM.88	Brown, Daniel House	7 Brown St	Cambridge	1845
CAM.89	Hill, Aaron House	17 Brown St	Cambridge	c 1754

Page 8 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.708		1 Bryant St	Cambridge	1911
CAM.709		5 Bryant St	Cambridge	1916
CAM.710		7 Bryant St	Cambridge	1915
CAM.711		20-24 Bryant St	Cambridge	1916
CAM.712		21 Bryant St	Cambridge	1932
CAM.90	Bridgman, Percy House	10 Buckingham Pl	Cambridge	c 1920
CAM.91	Koch, Carl House	4 Buckingham St	Cambridge	1939
CAM.92	Higginson, Col. Thomas Wentworth House	29 Buckingham St	Cambridge	1880
CAM.941	Bridge, John Statue	Cambridge Common	Cambridge	1882
CAM.942	Memorial Gateway	Cambridge Common	Cambridge	1906
CAM.943	Revolutionary War Cannons	Cambridge Common	Cambridge	c 1770
CAM.944	Soldiers Monument	Cambridge Common	Cambridge	1869
CAM.906	Cambridge Parkway Bridge over Broad Canal	Cambridge Pkwy	Cambridge	1957
CAM.931	Cambridge Parkway	Cambridge Pkwy	Cambridge	1900
CAM.97	Memorial Hall	Cambridge St	Cambridge	r 1875
CAM.379	Middlesex County Registry of Deeds Building	Cambridge St	Cambridge	1896
CAM.380	Middlesex County Clerk of Courts Building	Cambridge St	Cambridge	1889
CAM.912	Longfellow Bridge - West Boston Bridge	Cambridge St	Cambridge	c 1907
CAM.914	Lechmere Square Streetcar Station	Cambridge St	Cambridge	1922
CAM.372		82-84 Cambridge St	Cambridge	1937
CAM.373	Davenport, A. H Irving and Casson Company	88-134 Cambridge St	Cambridge	1866
CAM.378		160 Cambridge St	Cambridge	1965
CAM.93	East Cambridge Savings Bank	292 Cambridge St	Cambridge	1931
CAM.94	Union Railway Car Barn	613-621 Cambridge St	Cambridge	1869
CAM.535		1353-1369 Cambridge St	Cambridge	1894
CAM.532	Waite Building	1368 Cambridge St	Cambridge	1855
CAM.533	Middlesex Bank Building	1374-1385 Cambridge St	Cambridge	1874
CAM.95		1707-1709 Cambridge St	Cambridge	1845
CAM.96		1715-1717 Cambridge St	Cambridge	1845
CAM.635	Holmes Block II - Green Block	2-14 Central Sq	Cambridge	1798
CAM.636	Home Realty Building	14 Central Sq	Cambridge	1970
CAM.639	Southwick Building I	15-16 Central Sq	Cambridge	1896
CAM.640	Southwick Building II	17-24 Central Sq	Cambridge	c 1860
CAM.641	White Tower Restaurant	25 Central Sq	Cambridge	1932
CAM.98	Melvin, Isaac House	19 Centre St	Cambridge	1842
CAM.99	Boston and Maine Railroad Signal Tower A	Charles River	Cambridge	1931
CAM.911	Charles River Railroad Draw Bridge #1	Charles River	Cambridge	1931
CAM.920	Charles River Dam	Charles River	Cambridge	r 1905
Thursday, M	av 23 2010			Page 9 of 37

Page 9 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.925	Weeks, John Wingate Foot Bridge	Charles River	Cambridge	1927
CAM.928	Lechmere Canal	Charles River	Cambridge	1909
CAM.929	Broad Canal	Charles River	Cambridge	1805
CAM.932	Charles River Basin Granite Seawall and Iron Fence	Charles River	Cambridge	
CAM.935	Metropolitan District Commission Swimming Pool	Charles River	Cambridge	
CAM.1320	Metropolitan District Commission Clorination Plant	Charles River	Cambridge	
CAM.1325	M. I. T Pierce, Harold Whitworth Boat House	Charles River	Cambridge	1965
CAM.1326	M. I. T Wood, Walter C. Sailing Pavilion	Charles River	Cambridge	1976
CAM.1328	Riverside Boat Club	Charles River	Cambridge	r 1910
CAM.543	Boardman, James Double House	Cherry St	Cambridge	1843
CAM.100	Fuller, Margaret House	71 Cherry St	Cambridge	1806
CAM.546		87 Cherry St	Cambridge	c 1845
CAM.545		116-120 Cherry St	Cambridge	c 1845
CAM.544	Eaton, Jacob House	128 Cherry St	Cambridge	c 1844
CAM.542		137-139 Cherry St	Cambridge	c 1840
CAM.537		149-151 Cherry St	Cambridge	c 1830
CAM.538		159-161 Cherry St	Cambridge	c 1830
CAM.547		167 Cherry St	Cambridge	1850
CAM.548		169 Cherry St	Cambridge	1850
CAM.101	Kingsley, Chester House	10 Chester St	Cambridge	1866
CAM.518		105 Chestnut St	Cambridge	1875
CAM.519		111 Chestnut St	Cambridge	1875
CAM.102	First Parish Church, Unitarian	1-3 Church St	Cambridge	1833
CAM.103		23-25 Church St	Cambridge	1936
CAM.1085		26-28 Church St	Cambridge	1857
CAM.104		27-29 Church St	Cambridge	1922
CAM.105	Cambridge Police Station	31-33 Church St	Cambridge	1864
CAM.1086	Oxford Grill	32-42 Church St	Cambridge	1931
CAM.1087	Hancock - Torrey House	53 Church St	Cambridge	1827
CAM.1088		54-56 Church St	Cambridge	1925
CAM.1089		59-63 Church St	Cambridge	1949
CAM.1377	Cambridge Almshouse Caretaker's House	36 Churchill Ave	Cambridge	c 1886
CAM.106	Gale, George House	14-16 Clinton St	Cambridge	c 1853
CAM.1387	-	41-43 Columbia St	Cambridge	
CAM.107	Beth Israel Synagogue	238 Columbia St	Cambridge	1901
CAM.908	Commercial Avenue Bridge over Lechmere Canal	Commercial Ave	Cambridge	1907

nv. No.	Property Name	Street	Town	Year
CAM.1318	Metropolitan District Commission Stables	Commercial Ave	Cambridge	
CAM.336		3 Concord Ave	Cambridge	1915
CAM.337		5 Concord Ave	Cambridge	c 1917
CAM.108	Howells, William Dean House	37 Concord Ave	Cambridge	1873
CAM.1365	Cambridge Home for the Aged and Infirm	650 Concord Ave	Cambridge	1928
CAM.111	Holmes, Joseph House	144 Coolidge Hill	Cambridge	1801
CAM.109	Orne, Sarah House	10 Coolidge Hill Rd	Cambridge	1807
CAM.110	Coolidge, Josiah House	24 Coolidge Hill Rd	Cambridge	c 1822
CAM.600	Coolidge, Flavel House	2 Coolidge Pl	Cambridge	1834
CAM.1369	Blessed Sacrament Roman Catholic Parish School	12 Corporal McTernan St	Cambridge	1924
CAM.112	Valentine Soap Workers' Cottage	5-7 Cottage St	Cambridge	1835
CAM.1212	Mather House - Harvard University	Cowperthwaite St	Cambridge	1967
CAM.113	Birkhoff, George D. House	22 Craigie St	Cambridge	r 1870
CAM.114	Ross, Denman House	24-26 Craigie St	Cambridge	1869
CAM.115		25 Craigie St	Cambridge	1856
CAM.116	Horsford, Eben House	27 Craigie St	Cambridge	1854
CAM.333	Day, Anna House	139 Cushing St	Cambridge	1856
CAM.117	Colburn, Sara Foster House	7 Dana St	Cambridge	1841
CAM.118	University Museum	11-25 Divinity Ave	Cambridge	1859
CAM.119	Divinity Hall	12 Divinity Ave	Cambridge	1825
CAM.120	Biological Laboratory	16 Divinity Ave	Cambridge	1930
CAM.121	Second Cambridge Savings Bank Building	11-21 Dunster St	Cambridge	1897
CAM.1090	Union Railway Carbarn	25-33 Dunster St	Cambridge	1860
CAM.1091	Second D. U. Club	45 Dunster St	Cambridge	1930
CAM.1092	Metcalf, Eliab Wight House	46 Dunster St	Cambridge	1820
CAM.1093	Edwards, Abraham - Moore, Mary House	53 Dunster St	Cambridge	1841
CAM.1094	Alpha Sigma Phi Club	54 Dunster St	Cambridge	1900
CAM.122	Wyeth, Augustus House	69 Dunster St	Cambridge	1829
CAM.1095		71-77 Dunster St	Cambridge	1894
CAM.123		42 Edward J. Lopez Ave	Cambridge	c 1830
CAM.1096	Hotel Packard	10-14 Eliot St	Cambridge	1869
CAM.1097		14A Eliot St	Cambridge	1900
CAM.1098		16-18 Eliot St	Cambridge	1898
CAM.124	Sands, Ivory House	145 Elm St	Cambridge	1839
CAM.125	Foster, Dr. House	8 Elmwood Ave	Cambridge	1893
CAM.126	Greenough, J. J. House	9 Elmwood Ave	Cambridge	1903
CAM.127	Smyth, Herbert House	11-15 Elmwood Ave	Cambridge	1903

Page 11 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.128	Kempton, John House	14 Elmwood Ave	Cambridge	1895
CAM.129		20 Elmwood Ave	Cambridge	1892
CAM.130	Benson, Ruth House	26 Elmwood Ave	Cambridge	1899
CAM.131	Watson House	30 Elmwood Ave	Cambridge	c 1750
CAM.132	Elmwood - Lowell, James Russell House	33 Elmwood Ave	Cambridge	c 1767
CAM.133	Reardon, Edmund House	195 Erie St	Cambridge	1884
CAM.1371	Blessed Sacrament Roman Catholic Church Convent	203 Erie St	Cambridge	1954
CAM.134	Harvard Graduate Center	10-26 Everett St	Cambridge	1949
CAM.135	Jarvis, The	27 Everett St	Cambridge	1890
CAM.136	Newman, Andrew House	23 Fairmont St	Cambridge	1823
CAM.713		2-4 Farrar St	Cambridge	1927
CAM.714		9 Farrar St	Cambridge	1890
CAM.715		15 Farrar St	Cambridge	1898
CAM.716		16 Farrar St	Cambridge	1931
CAM.717		17 Farrar St	Cambridge	1897
CAM.718		18-20 Farrar St	Cambridge	1923
CAM.719		22 Farrar St	Cambridge	1928
CAM.720		26 Farrar St	Cambridge	1928
CAM.137		10-12 Farwell Pl	Cambridge	r 1870
CAM.138	Nichols House	11 Farwell Pl	Cambridge	1827
CAM.139		14-16 Farwell Pl	Cambridge	c 1855
CAM.140	Read, James House	15 Farwell Pl	Cambridge	c 1772
CAM.141	Child, N. K. House	17 Farwell Pl	Cambridge	1835
CAM.142		18-20 Farwell Pl	Cambridge	c 1855
CAM.143	Christ Church Parish House	19 Farwell Pl	Cambridge	1948
CAM.144	Toppan House	22-24 Farwell Pl	Cambridge	c 1900
CAM.1408	Carey, Agnes Whiteside House	50 Fayerweather St	Cambridge	
CAM.145	Deane, Ezra - Williams, George House	21-23 Fayette St	Cambridge	1848
CAM.146		26-28 Fayette St	Cambridge	1857
CAM.430	Cambridge Public Library - O'Connell Branch	Fifth St	Cambridge	1938
CAM.441		69-71 Fifth St	Cambridge	
CAM.452	Hall, Jesse House	75 Fifth St	Cambridge	1837
CAM.428		82 Fifth St	Cambridge	
CAM.429		83 Fifth St	Cambridge	
CAM.1405	Volpe Center - Center Service Building	259 Fifth St	Cambridge	c 1965
CAM.907	First Street Bridge over Broad Canal	First St	Cambridge	1924
CAM.147	Athenaeum Press Building	215 First St	Cambridge	1895

Inv. No.	Property Name	Street	Town	Year
CAM.910	Fitchburg Railroad Signal Bridge	Fitchburg Railroad	Cambridge	c 1930
CAM.148	Abbot, Edwin House	1 Follen St	Cambridge	1889
CAM.1271		5 Follen St	Cambridge	1853
CAM.1273		6 Follen St	Cambridge	1868
CAM.1338		8 Follen St	Cambridge	1871
CAM.149	Second Waterhouse House	9 Follen St	Cambridge	1844
CAM.150		10 Follen St	Cambridge	1875
CAM.1274		13 Follen St	Cambridge	1900
CAM.151	Richards, Theodore W. House	15 Follen St	Cambridge	1900
CAM.1275		19 Follen St	Cambridge	1844
CAM.1276		20 Follen St	Cambridge	1949
CAM.1277		21 Follen St	Cambridge	1841
CAM.1278		22 Follen St	Cambridge	1951
CAM.1279		25 Follen St	Cambridge	1889
CAM.152	Clover Den - Mann, Mary House	29 Follen St	Cambridge	1837
CAM.1280		34 Follen St	Cambridge	1946
CAM.1281		36 Follen St	Cambridge	1847
CAM.1282		44 Follen St	Cambridge	1862
CAM.338	Puritan Arms	46-50 Follen St	Cambridge	1940
CAM.1331	Homer - Lovell House	11 Forest St	Cambridge	1867
CAM.153	Francis, Ebenezer Houuse	1 Francis Ave	Cambridge	1836
CAM.721		6 Francis Ave	Cambridge	1940
CAM.722		7 Francis Ave	Cambridge	1894
CAM.723		8 Francis Ave	Cambridge	1940
CAM.724		9 Francis Ave	Cambridge	c 1875
CAM.725		10 Francis Ave	Cambridge	1894
CAM.726		11 Francis Ave	Cambridge	1894
CAM.1337		12-14 Francis Ave	Cambridge	1895
CAM.727		16 Francis Ave	Cambridge	1906
CAM.154	Davis, William Morris House	17 Francis Ave	Cambridge	r 1895
CAM.728		18 Francis Ave	Cambridge	1911
CAM.155	Hyatt, Prof. Alpheus - Durant, Prof. Will B. House	19 Francis Ave	Cambridge	1889
CAM.729		21 Francis Ave	Cambridge	1925
CAM.730		22 Francis Ave	Cambridge	1912
CAM.731		23 Francis Ave	Cambridge	1902
CAM.732		24 Francis Ave	Cambridge	1906
CAM.733		30 Francis Ave	Cambridge	1905
CAM.734		32 Francis Ave	Cambridge	1903
Thursday, Ma	y 23, 2019			Page 13 of 37

lnv. No.	Property Name	Street	Town	Year
CAM.735	Center for the Study of World Religions	42 Francis Ave	Cambridge	1959
CAM.736		44 Francis Ave	Cambridge	1913
CAM.737		53 Francis Ave	Cambridge	1913
CAM.738		56 Francis Ave	Cambridge	1914
CAM.739		57 Francis Ave	Cambridge	1913
CAM.740		59 Francis Ave	Cambridge	1916
CAM.741		60 Francis Ave	Cambridge	1961
CAM.742		63 Francis Ave	Cambridge	1913
CAM.743	Sert, Jose Luis House	64 Francis Ave	Cambridge	1957
CAM.744		65 Francis Ave	Cambridge	1916
CAM.745		67 Francis Ave	Cambridge	1926
CAM.746		68 Francis Ave	Cambridge	1921
CAM.747		70 Francis Ave	Cambridge	1879
CAM.748		73 Francis Ave	Cambridge	1926
CAM.749		75-77 Francis Ave	Cambridge	1925
CAM.1329	Kennedy, F. A. Steam Bakery	129 Franklin St	Cambridge	1875
CAM.919	Fresh Pond Lane over B & M Railroad	Fresh Pond Ln	Cambridge	1926
CAM.9014	Fresh Pond Parkway	Fresh Pond Pkwy	Cambridge	1899
CAM.9015	Fresh Pond Parkway - Concord Avenue Rotary Islands	Fresh Pond Pkwy	Cambridge	1928
AM.9016	Fresh Pond Parkway - New Street Rotary	Fresh Pond Pkwy	Cambridge	1928
CAM.9017	Fresh Pond Parkway Tree Canopy	Fresh Pond Pkwy	Cambridge	r 1920
CAM.9018	Fresh Pond Parkway Median System	Fresh Pond Pkwy	Cambridge	c 1958
CAM.156	Wyeth - Eliot, Charles House	17 Fresh Pond Pkwy	Cambridge	1838
CAM.157	Frost, Walter House	10 Frost St	Cambridge	1807
CAM.800	Old Burying Ground	Garden St	Cambridge	r 1750
CAM.940	Milestone, 1767	Garden St	Cambridge	1734
CAM.158	Christ Church	0 Garden St	Cambridge	1760
CAM.159	Saunders, William House	1 Garden St	Cambridge	1821
CAM.339		2 Garden St	Cambridge	1835
CAM.340	Howe, Sarah House	3 Garden St	Cambridge	1851
CAM.160	First Church in Cambridge Congregational	11 Garden St	Cambridge	1870
AM.341		17-19 Garden St	Cambridge	1926
CAM.161	Sears Tower - Harvard Observatory	60 Garden St	Cambridge	1843
CAM.162	Warner House	63 Garden St	Cambridge	1855
CAM.163	Gray, Asa House	88 Garden St	Cambridge	1810
AM.1240		91 Garden St	Cambridge	1922
CAM.164	Taylor Square Firehouse	113 Garden St	Cambridge	1904

Inv. No.	Property Name	Street	Town	Year
CAM.165	Warren, H. Langford House	6 Garden Terr	Cambridge	1904
CAM.671	Rollins, John House	16 Garfield St	Cambridge	1891
CAM.672	Wood, Edward House	18 Garfield St	Cambridge	1886
CAM.1336	Shepherd, Herbert House	31-33 Garfield St	Cambridge	1886
CAM.673	Farquhar, Robert House	34 Garfield St	Cambridge	1890
CAM.674	Coon, Sarah House	36 Garfield St	Cambridge	1887
CAM.666	Shepherd, Edward House	39 Garfield St	Cambridge	1885
CAM.675	Thayer, Bertha House	44 Garfield St	Cambridge	1888
CAM.667	Estabrook, J. W. House	45 Garfield St	Cambridge	1886
CAM.668	Bartlett, A. S. House	49 Garfield St	Cambridge	1888
CAM.676	Green, Roscoe House	54 Garfield St	Cambridge	1890
CAM.669	Dewey House	55 Garfield St	Cambridge	1889
CAM.677	Worcester, George House	58 Garfield St	Cambridge	1890
CAM.678	Allen, Frank House	64 Garfield St	Cambridge	1891
CAM.670	Sullivan, Cornelius House	67 Garfield St	Cambridge	1889
CAM.679	Farnsworth, Charles House	74 Garfield St	Cambridge	1897
CAM.680	Ball, Elijah House	80 Garfield St	Cambridge	1887
CAM.502	Lechmere Point Corporation Row House	47 Gore St	Cambridge	c 1821
CAM.503	Lechmere Point Corporation Row House	49 Gore St	Cambridge	c 1821
CAM.504	Lechmere Point Corporation Row House	51 Gore St	Cambridge	c 1821
CAM.1407	Carr, M. W. and Company Factory - Building #4	63 Gorham St	Cambridge	r 1920
CAM.1241		1 Gray Gardens East	Cambridge	1925
CAM.1242		2 Gray Gardens East	Cambridge	1930
CAM.1243		3 Gray Gardens East	Cambridge	1923
CAM.1244		8 Gray Gardens East	Cambridge	1923
CAM.1245		9 Gray Gardens East	Cambridge	1922
CAM.1246		11 Gray Gardens East	Cambridge	1924
CAM.1247		12 Gray Gardens East	Cambridge	1922
CAM.1248		13 Gray Gardens East	Cambridge	1925
CAM.1249		16 Gray Gardens East	Cambridge	1922
CAM.1250		17 Gray Gardens East	Cambridge	1958
CAM.1251		19 Gray Gardens East	Cambridge	1927
CAM.1252		22 Gray Gardens East	Cambridge	1962
CAM.1253		25 Gray Gardens East	Cambridge	1926
CAM.1254		26 Gray Gardens East	Cambridge	1922
CAM.1255		27 Gray Gardens East	Cambridge	1923
CAM.1256		30 Gray Gardens East	Cambridge	1928
CAM.1257		31 Gray Gardens East	Cambridge	1924
Thursday, Ma	y 23, 2019			Page 15 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1258		37 Gray Gardens East	Cambridge	1923
CAM.1259		3 Gray Gardens West	Cambridge	1923
CAM.1260		4 Gray Gardens West	Cambridge	1922
CAM.1261		11 Gray Gardens West	Cambridge	1923
CAM.1262		14 Gray Gardens West	Cambridge	1924
CAM.1263		15 Gray Gardens West	Cambridge	1929
CAM.1264		16 Gray Gardens West	Cambridge	1925
CAM.167	Hall Tavern	20 Gray Gardens West	Cambridge	r 1800
CAM.1265		24 Gray Gardens West	Cambridge	1928
CAM.166	Frost, David House	26 Gray St	Cambridge	1815
CAM.618		133 Green St	Cambridge	c 1894
CAM.624	Raymond, T. H. Warehouse	175 Green St	Cambridge	1908
CAM.1389		205-207 Green St	Cambridge	
CAM.534	Inman Square Fire Station	Hampshire St	Cambridge	1912
CAM.168	Lamson, Rufus House	72-74 Hampshire St	Cambridge	1854
CAM.1367	Massachusetts Avenue Baptist Church	146 Hampshire St	Cambridge	1902
CAM.169	Opposition House	2-4 Hancock Pl	Cambridge	1807
CAM.170		104-106 Hancock St	Cambridge	1839
CAM.171	Atwood, Ephraim House	110 Hancock St	Cambridge	1839
CAM.536	Fay, Samuel P. P. House	172 Harvard St	Cambridge	1805
CAM.549	Allen Block	177-183 Harvard St	Cambridge	r 1875
CAM.1354	Courtney, Benjamin House	273 Harvard St	Cambridge	1867
CAM.172	Jones, William R. House	307 Harvard St	Cambridge	1865
CAM.173	Vinal, Albert House	325 Harvard St	Cambridge	1853
CAM.681	Melledge, James P. House	335 Harvard St	Cambridge	1850
CAM.684	Warner, Caleb House	336 Harvard St	Cambridge	1858
CAM.682		337 Harvard St	Cambridge	1887
CAM.685	Frothingham, Amos House	338 Harvard St	Cambridge	1859
CAM.686	Goepper, William House	340 Harvard St	Cambridge	1897
CAM.683		341-343 Harvard St	Cambridge	1855
CAM.687	Rindge, Samuel Baker House	342-344 Harvard St	Cambridge	1857
CAM.174	Bradbury, William F. House	369 Harvard St	Cambridge	1877
CAM.175	Hapgood, Richard House	382-392 Harvard St	Cambridge	1889
CAM.176	Ware Hall	383 Harvard St	Cambridge	1893
CAM.1099	Delta Upsilon Club	396 Harvard St	Cambridge	1914
CAM.177	Old Cambridge Baptist Church	398 Harvard St	Cambridge	1867
CAM.193	Austin Hall	Harvard University	Cambridge	1881
CAM.178	Holden Chapel - Harvard University	Harvard Yard	Cambridge	1764
Thursday, Ma	av 23. 2019			Page 16 of 37

Page 16 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.179	Sever Hall	Harvard Yard	Cambridge	1880
CAM.180	University Hall	Harvard Yard	Cambridge	1812
CAM.181	Harvard Hall - Harvard University	Harvard Yard	Cambridge	1764
CAM.182	Hollis Hall - Harvard University	Harvard Yard	Cambridge	1762
CAM.183	Massachusetts Hall	Harvard Yard	Cambridge	1718
CAM.184	Weld Hall - Harvard University	Harvard Yard	Cambridge	1870
CAM.185	Boylston Hall - Harvard University	Harvard Yard	Cambridge	1857
CAM.186	Holworthy Hall - Harvard University	Harvard Yard	Cambridge	1811
CAM.187	Grays Hall - Harvard University	Harvard Yard	Cambridge	1862
CAM.188	Lehman Hall - Harvard University	Harvard Yard	Cambridge	1924
CAM.189	Matthews House - Harvard University	Harvard Yard	Cambridge	1871
CAM.190	Straus Hall - Harvard University	Harvard Yard	Cambridge	1926
CAM.191	Thayer Hall - Harvard University	Harvard Yard	Cambridge	1869
CAM.192	Wigglesworth Hall - Harvard University	Harvard Yard	Cambridge	1930
CAM.953	Harvard University - 1857 Gate	Harvard Yard	Cambridge	1901
CAM.954	Harvard University - 1870 Gate	Harvard Yard	Cambridge	1901
CAM.955	Harvard University - 1873 Tablet	Harvard Yard	Cambridge	1901
CAM.956	Harvard University - 1874 Gate	Harvard Yard	Cambridge	1901
CAM.957	Harvard University - 1875 Gate	Harvard Yard	Cambridge	1901
CAM.958	Harvard University - 1881 Gate	Harvard Yard	Cambridge	1906
CAM.959	Harvard University - 1885 Gate	Harvard Yard	Cambridge	1904
CAM.960	Harvard University - 1886 Gate	Harvard Yard	Cambridge	1901
CAM.961	Harvard University - 1887 Gate	Harvard Yard	Cambridge	1906
CAM.962	Harvard University - 1888 Gate	Harvard Yard	Cambridge	1906
CAM.963	Harvard University - 1889 Gate	Harvard Yard	Cambridge	1901
CAM.964	Harvard University - 1890 Gate	Harvard Yard	Cambridge	1901
CAM.965	Harvard University - 1880 Gate	Harvard Yard	Cambridge	1902
CAM.966	Harvard University - Bradley Fountain	Harvard Yard	Cambridge	1910
CAM.967	Harvard University - Chinese Steel	Harvard Yard	Cambridge	r 1810
CAM.968	Harvard University - Delivery Gate	Harvard Yard	Cambridge	1948
CAM.969	Harvard University - Driveway Gate	Harvard Yard	Cambridge	1948
CAM.970	Harvard University - 1908 Gate	Harvard Yard	Cambridge	1936
CAM.971	Harvard University - Emerson Gate	Harvard Yard	Cambridge	1936
CAM.972	Harvard University - Fire Station Gate	Harvard Yard	Cambridge	1970
CAM.973	Harvard University - Hollis Pump	Harvard Yard	Cambridge	1936
CAM.974	Harvard University - 1876 Gate	Harvard Yard	Cambridge	1901
CAM.975	Harvard University - Harvard, John Statue	Harvard Yard	Cambridge	1884
CAM.976	Harvard University - Johnston Gate	Harvard Yard	Cambridge	1889
Thursdav. M	av 23 2019			Page 17 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.977	Harvard University - Lamont Gate	Harvard Yard	Cambridge	1948
CAM.978	Harvard University - Gatehouse	Harvard Yard	Cambridge	1983
CAM.979	Harvard University - 1879 Gate	Harvard Yard	Cambridge	1891
CAM.980	Harvard University - Onion	Harvard Yard	Cambridge	1965
CAM.981	Harvard University - Porcellian Gate	Harvard Yard	Cambridge	1901
CAM.982	Harvard University - Reclining Figure	Harvard Yard	Cambridge	1972
CAM.983	Harvard University - Robinson Gate	Harvard Yard	Cambridge	1936
CAM.984	Harvard University - 1870 Sundial	Harvard Yard	Cambridge	1901
CAM.985	Harvard University - 1877 Gate	Harvard Yard	Cambridge	1901
CAM.1214	Harvard University - Canaday Hall	Harvard Yard	Cambridge	1973
CAM.1215	Harvard University - Emerson Hall	Harvard Yard	Cambridge	1904
CAM.1216	Harvard University - Houghton Library	Harvard Yard	Cambridge	1941
CAM.1217	Harvard University - Lamont Library	Harvard Yard	Cambridge	1947
CAM.1218	Harvard University - Lionel Hall	Harvard Yard	Cambridge	1924
CAM.1219	Harvard University - Memorial Church	Harvard Yard	Cambridge	1931
CAM.1220	Harvard University - Mower Hall	Harvard Yard	Cambridge	1924
CAM.1221	Brooks, Phillips House - Harvard Univsersity	Harvard Yard	Cambridge	1898
CAM.1222	Harvard University - Pusey Library	Harvard Yard	Cambridge	1973
CAM.1223	Harvard University - Robinson Hall	Harvard Yard	Cambridge	1900
CAM.1224	Harvard University - Stoughton Hall	Harvard Yard	Cambridge	1804
CAM.1227	Harvard University - Widener Library	Harvard Yard	Cambridge	1913
CAM.520		6 Hastings Sq	Cambridge	1884
CAM.1231	Bates, Jacob H. House	11 Hawthorn St	Cambridge	1813
CAM.194	Daly, Reginald A. House	23 Hawthorn St	Cambridge	c 1885
CAM.195	Wadsworth House	31 Hawthorn St	Cambridge	r 1935
CAM.196		35 Hawthorn St	Cambridge	r 1935
CAM.197	Glaser, Dorothy Merriless House	37 Hawthorn St	Cambridge	1937
CAM.198		41 Hawthorn St	Cambridge	1911
CAM.199	Maynardier, G. B. House	43 Hawthorn St	Cambridge	1900
CAM.1232		49 Hawthorn St	Cambridge	1900
CAM.521		75 Henry St	Cambridge	1892
CAM.1343		82-84 Henry St	Cambridge	
CAM.200	Noyes, J. A. House	1 Highland St	Cambridge	1894
CAM.796	Usher, Samuel House	11 Hillside Ave	Cambridge	1887
CAM.750		11 Holden St	Cambridge	1928
CAM.751		41 Holden St	Cambridge	1840
CAM.752		45 Holden St	Cambridge	1928
CAM.1383	Chadwick, Samuel E. House	10 Hollis St	Cambridge	1853
Thursday, Ma	y 23, 2019			Page 18 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1100	Alpha Delta Phi Club - Fly Club	2 Holyoke Pl	Cambridge	1896
CAM.1101		9 Holyoke Pl	Cambridge	c 1930
CAM.1197	Lowell House - Harvard University	10 Holyoke Pl	Cambridge	1929
CAM.1198	Indoor Athletic Building - Harvard University	35-41 Holyoke Pl	Cambridge	1929
CAM.1102		8-10 Holyoke St	Cambridge	1927
CAM.201	Hasty Pudding Club	12 Holyoke St	Cambridge	1887
CAM.1103	Apley Court	16 Holyoke St	Cambridge	1897
CAM.1104	Sawyer, Samuel F. House	20 Holyoke St	Cambridge	1818
CAM.1105		22 Holyoke St	Cambridge	1956
CAM.1106		24 Holyoke St	Cambridge	1963
CAM.1107	Owl Club	30 Holyoke St	Cambridge	1905
CAM.1302		2 Hubbard Pk	Cambridge	1909
CAM.1293		3 Hubbard Pk	Cambridge	1887
CAM.1306	Warren, John L. House	5 Hubbard Pk	Cambridge	1922
CAM.1305	Paine, George House	6 Hubbard Pk	Cambridge	c 1918
CAM.1295		8 Hubbard Pk	Cambridge	1888
CAM.1301	Nutting, Lillian House	12 Hubbard Pk	Cambridge	1908
CAM.1297		14 Hubbard Pk	Cambridge	1892
CAM.1304		15 Hubbard Pk	Cambridge	1914
CAM.1303	Beach, Revel W. House	19 Hubbard Pk	Cambridge	1913
CAM.1298		20 Hubbard Pk	Cambridge	1892
CAM.1299		26 Hubbard Pk	Cambridge	1894
CAM.1296		32 Hubbard Pk	Cambridge	1890
CAM.1346		15 Humboldt St	Cambridge	
CAM.904	Huron Avenue Bridge over B & M Railroad	Huron Ave	Cambridge	1892
CAM.202	Syrian Orthodox Catholic Church of Saint Mary	8 Inman St	Cambridge	1822
CAM.576	Matthews Apartments	12 Inman St	Cambridge	1966
CAM.1364	Bennett, James House	17 Inman St	Cambridge	1871
CAM.1349	Luke Rowhouse	19 Inman St	Cambridge	1877
CAM.1350	Luke Rowhouse	21 Inman St	Cambridge	1877
CAM.1351	Luke Rowhouse	21 1/2 Inman St	Cambridge	1877
CAM.203		102-104 Inman St	Cambridge	1845
CAM.204		106-108 Inman St	Cambridge	1845
CAM.205		110-112 Inman St	Cambridge	1845
CAM.753		80-82 Irving St	Cambridge	1927
CAM.754		81 Irving St	Cambridge	1916
CAM.755		84-86 Irving St	Cambridge	1927
CAM.756		89 Irving St	Cambridge	1916
Thursday, Ma	y 23, 2019			Page 19 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.206	James, William House	95 Irving St	Cambridge	1889
CAM.757		99 Irving St	Cambridge	1889
CAM.758		103-103A Irving St	Cambridge	1889
CAM.207	cummings, e. e. House	104 Irving St	Cambridge	1893
CAM.759	Van Dael - DeSola Pool House	105 Irving St	Cambridge	1890
CAM.760		107 Irving St	Cambridge	1891
CAM.761		109 Irving St	Cambridge	1893
CAM.762	Davis, Robert House	110 Irving St	Cambridge	1889
CAM.763		114 Irving St	Cambridge	1911
CAM.764		133 Irving St	Cambridge	1963
CAM.765	American Academy of Arts and Sciences	136 Irving St	Cambridge	1980
CAM.766		138 Irving St	Cambridge	1912
CAM.297	Radcliffe College - Schlesinger Library	James St	Cambridge	1907
CAM.950	Winthrop Square Park	Kennedy St	Cambridge	1631
CAM.1108	Abbott Building	5 Kennedy St	Cambridge	1908
CAM.1109		9-25 Kennedy St	Cambridge	1887
CAM.1110	Farwell, Levi Tenant House	10-14 Kennedy St	Cambridge	c 1820
CAM.1111	Read Block	18-28 Kennedy St	Cambridge	1885
CAM.1112		29-41 Kennedy St	Cambridge	1971
CAM.1113		30 Kennedy St	Cambridge	1936
CAM.1114	Garage, The	34-42 Kennedy St	Cambridge	1924
CAM.1115	Fox Club	44 Kennedy St	Cambridge	1906
CAM.1116	Drayton Hall	48 Kennedy St	Cambridge	1901
CAM.1117		50 Kennedy St	Cambridge	1892
CAM.1118		52-54 Kennedy St	Cambridge	1884
CAM.1119	Galeria	55-57 Kennedy St	Cambridge	1974
CAM.1120		56 Kennedy St	Cambridge	1903
CAM.1121	S. A. E. Club	60 Kennedy St	Cambridge	1929
CAM.1122		63-65 Kennedy St	Cambridge	1984
CAM.1200	Hicks, John House - Harvard University	64 Kennedy St	Cambridge	1762
CAM.1199	Smith Hall - Harvard University	70-78 Kennedy St	Cambridge	1913
CAM.208	Loring, Judge Edward - Peirce, Benjamin House	4 Kirkland Pl	Cambridge	1856
CAM.688	Merrill, John House	9 Kirkland Pl	Cambridge	1855
CAM.689	Shaw, Southworth House	10 Kirkland Pl	Cambridge	1856
CAM.690	Green, Louise House	11 Kirkland Pl	Cambridge	1921
CAM.691	Cutler, Isaac House	12 Kirkland Pl	Cambridge	1857
CAM.692	Cutler, George House	13 Kirkland Pl	Cambridge	1857
CAM.693	Ware House	14 Kirkland Pl	Cambridge	1839
Thursday, Ma	ny 23, 2019			Page 20 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.209	Treadwell - Sparks House	21 Kirkland St	Cambridge	1838
CAM.210	Brooks, Luther House	34 Kirkland St	Cambridge	1840
CAM.211	Lovering, Joseph House	38 Kirkland St	Cambridge	1839
CAM.767		49 Kirkland St	Cambridge	1886
CAM.768		55 Kirkland St	Cambridge	1927
CAM.769		57-59 Kirkland St	Cambridge	1927
CAM.212	Eliot, Charles W. House	61 Kirkland St	Cambridge	1858
CAM.213	Child, Francis J. House	67 Kirkland St	Cambridge	1861
CAM.9019	Brown-Rhone, Jill Park	Lafayette Sq	Cambridge	2007
CAM.214	Fresh Pond Hotel	234 Lakeview Ave	Cambridge	1796
CAM.1013		13 Lancaster St	Cambridge	c 1880
CAM.1005		16 Lancaster St	Cambridge	1892
CAM.1006		18 Lancaster St	Cambridge	1885
CAM.1007		24 Lancaster St	Cambridge	1883
CAM.1014	Sawyer, Chester House	27 Lancaster St	Cambridge	1886
CAM.1015	Hovey, William B. House	29 Lancaster St	Cambridge	1887
CAM.1008		36 Lancaster St	Cambridge	1886
CAM.215	Yerxa House and Carriage House	37 Lancaster St	Cambridge	1887
CAM.216	Larches, The	22 Larch Rd	Cambridge	c 1808
CAM.1317	Metropolitan District Commission Boat House	Lechmere Canal	Cambridge	1910
CAM.217		15-17 Lee St	Cambridge	1856
CAM.218	Lowell, The	33 Lexington Ave	Cambridge	1900
CAM.1123		5-7 Linden St	Cambridge	c 1867
CAM.1124	Harvard Square Squash Court	8-10 Linden St	Cambridge	1908
CAM.1125	Delphic Club	9 Linden St	Cambridge	1902
CAM.219	Apthorp, Rev. East House	10 Linden St	Cambridge	c 1760
CAM.220	Cooper - Frost - Austin House	21 Linnaean St	Cambridge	1681
CAM.221	Peabody Court Apartments	41-43 Linnaean St	Cambridge	1922
CAM.1234	Cambridge Friends Meetinghouse and Center	5 Longfellow Pk	Cambridge	1914
CAM.1233		6 Longfellow Pk	Cambridge	1901
CAM.222	Lowell School	25 Lowell St	Cambridge	1883
CAM.1319	Magazine Beach Bath House	Magazine Beach	Cambridge	1899
CAM.223	First Baptist Church, Cambridge	5 Magazine St	Cambridge	1881
CAM.637	Church Corners Apartments	8-12 Magazine St	Cambridge	1985
CAM.510	Pilgrim Congregational Church	35 Magazine St	Cambridge	1871
CAM.511	Hinman, Joseph House	48 Magazine St	Cambridge	1875
CAM.512	Brewer, Isaac D Pulsifer, William Double House	50-52 Magazine St	Cambridge	1852

Inv. No.	Property Name	Street	Town	Year
CAM.513	Grace Methodist Church	56 Magazine St	Cambridge	1886
CAM.224	Flentje, Ernst House	129 Magazine St	Cambridge	1866
CAM.991	Shell Sign	187 Magazine St	Cambridge	1933
CAM.87	Kendall Square Subway Station	Main St	Cambridge	1912
CAM.225	Kendall Square Substation	Main St	Cambridge	1911
CAM.1308	Davenport - Allen and Endicott Factory Headhouse	Main St	Cambridge	1882
CAM.1309	Davenport - Allen and Endicott Factory East Wing	Main St	Cambridge	1848
CAM.1335	Luke Building	135-145 Main St	Cambridge	1874
CAM.1384	Engine House No. 7	350 Main St	Cambridge	c 1895
CAM.328	Union #2 Engine House	787-789 Main St	Cambridge	1852
CAM.609	Bright Building	853 Main St	Cambridge	1898
CAM.608	Wentworth Building	859-863 Main St	Cambridge	1897
CAM.610	Union Baptist Church	872 Main St	Cambridge	1882
CAM.607	Mellen Building	875 Main St	Cambridge	1897
CAM.606	Andelman, Ezra Building	877-881 Main St	Cambridge	1941
CAM.611	Sawyer, Charles Tenement	882-884 Main St	Cambridge	c 1873
CAM.605	Whitney, Lucretia and Henry Building	893-907 Main St	Cambridge	1870
CAM.703		6 Maple Ave	Cambridge	
CAM.694	Stevens, Charles B. House	8 Maple Ave	Cambridge	1873
CAM.704		12 Maple Ave	Cambridge	
CAM.705		14-16 Maple Ave	Cambridge	
CAM.702		15 Maple Ave	Cambridge	
CAM.701		19 Maple Ave	Cambridge	
CAM.697	Webster, Francis B. House	20 Maple Ave	Cambridge	1861
CAM.695	Hall, Lewis House	23 Maple Ave	Cambridge	1867
CAM.706		24 Maple Ave	Cambridge	
CAM.700		25 Maple Ave	Cambridge	r 1920
CAM.707		26 Maple Ave	Cambridge	
CAM.699		27 Maple Ave	Cambridge	
CAM.698		29 Maple Ave	Cambridge	
CAM.696	Munroe, Philip House	31 Maple Ave	Cambridge	1887
CAM.226	Mason, Josiah Jr. House	11 Market St	Cambridge	1831
CAM.295	Radcliffe College Gymnasium	Mason St	Cambridge	1898
CAM.296	Radcliffe College - Agassiz House	Mason St	Cambridge	1904
CAM.227	Norton House Ell	4 Mason St	Cambridge	1847
CAM.228		6-12 Mason St	Cambridge	

nv. No.	Property Name	Street	Town	Year
CAM.260	M. I. T. Alumni Swimming Pool Building	Massachusetts Ave	Cambridge	1940
CAM.261	Kresge Auditorium	Massachusetts Ave	Cambridge	1953
CAM.262	M. I. T. Chapel	Massachusetts Ave	Cambridge	1954
CAM.901	Harvard Square Subway Kiosk	Massachusetts Ave	Cambridge	1928
CAM.905	Massachusetts Avenue Bridge over Conrail	Massachusetts Ave	Cambridge	1900
CAM.916	Central Square Subway Station	Massachusetts Ave	Cambridge	1912
CAM.921	Harvard Bridge	Massachusetts Ave	Cambridge	r 1890
CAM.938	Cambridge Common	Massachusetts Ave	Cambridge	1631
CAM.939	Cambridge Common South Traffic Island	Massachusetts Ave	Cambridge	1976
CAM.945	Burying Ground Fence	Massachusetts Ave	Cambridge	1891
CAM.946	Flagstaff Park	Massachusetts Ave	Cambridge	1913
CAM.947	North Little Common	Massachusetts Ave	Cambridge	c 1858
CAM.949	Central Square Street Pattern	Massachusetts Ave	Cambridge	c 1630
CAM.334	Cambridge Armory	120 Massachusetts Ave	Cambridge	1902
CAM.332	Metropolitan Storage Warehouse	134 Massachusetts Ave	Cambridge	1895
CAM.1366	New England Confectionery Company Factory	250 Massachusetts Ave	Cambridge	1927
CAM.612	Lamson, The	351-355 Massachusetts Ave	Cambridge	1907
CAM.614	Lafayette Square Fire Station	378 Massachusetts Ave	Cambridge	1893
CAM.613	Shell Gas Station	385 Massachusetts Ave	Cambridge	1948
CAM.615	Salvation Army - Cambridge Citadel	400-402 Massachusetts Ave	Cambridge	1968
CAM.604		401-409 Massachusetts Ave	Cambridge	1966
CAM.603	Taylor, William A. House and Shop	411-413 Massachusetts Ave	Cambridge	1887
CAM.602	Barkin and Gorfinkle Building	415-429 Massachusetts Ave	Cambridge	1925
CAM.616	Kennedy, Frank A. Store	424 Massachusetts Ave	Cambridge	1896
CAM.617	Kutz, Issac Store	428 Massachusetts Ave	Cambridge	c 1910
CAM.229	Kennedy, The	430-442 Massachusetts Ave	Cambridge	1890
CAM.601	Robbins Building	433-447 Massachusetts Ave	Cambridge	1923
CAM.619	Blanchard Building	448-450 Massachusetts Ave	Cambridge	c 1886
CAM.324	South Row	452-458 Massachusetts Ave	Cambridge	1807
CAM.1393	Dana Row - South Row	452-458 Massachusetts Ave	Cambridge	2003
CAM.599	Rogers, F. W. and G. M. Building	453-457 Massachusetts Ave	Cambridge	1885
CAM.620	Freedman Building	460-464 Massachusetts Ave	Cambridge	1933
CAM.598	McDonald's Restaurant	463-467 Massachusetts Ave	Cambridge	1974
CAM.621	Central Square Realty Trust Building	468-480 Massachusetts Ave	Cambridge	1929
CAM.597	Moller's Furniture Store	485 Massachusetts Ave	Cambridge	1926
CAM.622	Longfellow, The	492-498 Massachusetts Ave	Cambridge	1893
CAM.596	Kane's Furniture Store	493-507 Massachusetts Ave	Cambridge	1916
CAM.625	Burger King Restaraunt	506 Massachusetts Ave	Cambridge	1970

Page 23 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1394	Hovey, Phineas Building	512-514 Massachusetts Ave	Cambridge	1842
CAM.595	Central Trust Building	515-527 Massachusetts Ave	Cambridge	1927
CAM.627	Miller Store	520 Massachusetts Ave	Cambridge	1924
CAM.628	Rosenwald Realty Corporation Building	522-526 Massachusetts Ave	Cambridge	1928
CAM.230	Odd Fellows Hall	536 Massachusetts Ave	Cambridge	1884
CAM.629	Clark - Lamb Building	546-550 Massachusetts Ave	Cambridge	c 1873
CAM.630	Albani Building	552-566 Massachusetts Ave	Cambridge	1925
CAM.592	Bullock, Charles Building	567-569 Massachusetts Ave	Cambridge	1859
CAM.591	Central Square Theater	571-577 Massachusetts Ave	Cambridge	1917
CAM.631	Ginsberg Building - Harvard Bazar	572-590 Massachusetts Ave	Cambridge	1913
CAM.590	Morse, Asa P. Building	579-587 Massachusetts Ave	Cambridge	1893
CAM.589	Cambridgeport National Bank Building	593-597 Massachusetts Ave	Cambridge	1869
CAM.632	Manhattan Market - Purity Supreme Super Market	596-610 Massachusetts Ave	Cambridge	1899
CAM.588	Morse, Asa Second Building	599-601 Massachusetts Ave	Cambridge	1905
CAM.587	Fisk and Coleman Building	603-605 Massachusetts Ave	Cambridge	1892
CAM.633	Prospect House	614-620 Massachusetts Ave	Cambridge	1869
CAM.586	Corcoran, John H. Building	615-627 Massachusetts Ave	Cambridge	1927
CAM.634	Holmes Block I	624-638 Massachusetts Ave	Cambridge	1915
CAM.1395	New Holmes Block	624-638 Massachusetts Ave	Cambridge	1998
CAM.585	Woolworth, F. W. Building	633-641 Massachusetts Ave	Cambridge	1950
CAM.584	Watriss Building	643-649 Massachusetts Ave	Cambridge	1880
CAM.583	Dowse, Thomas House	653-655 Massachusetts Ave	Cambridge	1814
CAM.581	New England Gas and Electric Association II Bldg	671-675 Massachusetts Ave	Cambridge	1966
CAM.642	Central Square Building	674 Massachusetts Ave	Cambridge	1926
CAM.643	Chamberlain - Hyde Building	684-688 Massachusetts Ave	Cambridge	1869
CAM.580	Cambridgeport Savings Bank	689 Massachusetts Ave	Cambridge	1904
CAM.644	Dana Building	692-698 Massachusetts Ave	Cambridge	1872
CAM.645	Southwick Building	700-706 Massachusetts Ave	Cambridge	1908
CAM.646	Norris Building	710-720 Massachusetts Ave	Cambridge	1916
CAM.579	Cambridge Electric Light Building	719 Massachusetts Ave	Cambridge	1912
CAM.647	Thayer Building I	722-724 Massachusetts Ave	Cambridge	1863
CAM.648	Thayer Building II	728-730 Massachusetts Ave	Cambridge	1868
CAM.578	Southwick Building	731-751 Massachusetts Ave	Cambridge	1896
CAM.649	Dobbins and Draper Store	736-750 Massachusetts Ave	Cambridge	1922
CAM.650	Dobbins and Draper Store	736-750 Massachusetts Ave	Cambridge	1922
CAM.231	Cambridge Mutual Fire Insurance Company Building	763 Massachusetts Ave	Cambridge	1888

Inv. No.	Property Name	Street	Town	Year
CAM.232	Central Square Post Office	770 Massachusetts Ave	Cambridge	1933
CAM.233	Cambridge City Hall	795 Massachusetts Ave	Cambridge	1889
CAM.651	Cambridge Senior Center	800-806 Massachusetts Ave	Cambridge	1925
CAM.652	Young Men's Christian Association Building	820-830 Massachusetts Ave	Cambridge	1896
CAM.1396	Brusch Medical Center	825-831 Massachusetts Ave	Cambridge	1951
CAM.653	Saint Peter's Episcopal Church	834 Massachusetts Ave	Cambridge	1867
CAM.654	Modern Manor Apartments	842-864 Massachusetts Ave	Cambridge	1925
CAM.900	Houghton Beech Tree	1000 Massachusetts Ave	Cambridge	
CAM.1127	Brentford Hall	1137 Massachusetts Ave	Cambridge	1899
CAM.1128	Dunham, Israel Houses	1156-1166 Massachusetts Ave	Cambridge	1858
CAM.1129		1168 Massachusetts Ave	Cambridge	c 1892
CAM.1130		1170-1174 Massachusetts Ave	Cambridge	c 1849
CAM.1131	Longfellow Court	1200 Massachusetts Ave	Cambridge	1916
CAM.1132	Gulf Gas Station	1201 Massachusetts Ave	Cambridge	1940
CAM.1133		1206 Massachusetts Ave	Cambridge	1965
CAM.1134		1208-1210 Massachusetts Ave	Cambridge	1842
CAM.1135	Quincy Hall	1218 Massachusetts Ave	Cambridge	1891
CAM.1136		1230 Massachusetts Ave	Cambridge	1907
CAM.1137		1234-1238 Massachusetts Ave	Cambridge	c 1894
CAM.1138	Hamden Hall	1246-1260 Massachusetts Ave	Cambridge	1902
CAM.1139	A. D. Club	1268-1270 Massachusetts Ave	Cambridge	1899
CAM.1140	Niles Building	1280 Massachusetts Ave	Cambridge	1984
CAM.234	Fairfax, The	1300-1306 Massachusetts Ave	Cambridge	1869
CAM.1141	Fairfax - Hilton Block	1310-1312 Massachusetts Ave	Cambridge	1883
CAM.1142	Fairfax - Hilton Block	1316 Massachusetts Ave	Cambridge	1885
CAM.235	Porcellian Club	1320-1324 Massachusetts Ave	Cambridge	1890
CAM.1143	Manter Hall	1325 Massachusetts Ave	Cambridge	1885
CAM.236	Wadsworth House	1341 Massachusetts Ave	Cambridge	1726
CAM.237	Holyoke Center	1350 Massachusetts Ave	Cambridge	1961
CAM.1144	Cambridge Savings Bank	1372-1376 Massachusetts Ave	Cambridge	1923
CAM.1145	Read, Joseph Stacey House	1380-1382 Massachusetts Ave	Cambridge	c 1783
CAM.1146	Bartlett, Joseph House	1384-1392 Massachusetts Ave	Cambridge	c 1800
CAM.1147	Harvard Coop Society	1400 Massachusetts Ave	Cambridge	1924
CAM.1148	Harvard Coop Society	1408-1410 Massachusetts Ave	Cambridge	1956
CAM.1149	Harvard Trust Company	1414 Massachusetts Ave	Cambridge	1923
CAM.1150	College House	1420-1442 Massachusetts Ave	Cambridge	1832
CAM.342	Gannett House	1511 Massachusetts Ave	Cambridge	1838
CAM.343	Hemenway Gymnasium	1517 Massachusetts Ave	Cambridge	1938
Thursday, Ma	av 23. 2019			Page 25 of 3

Page 25 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.344	Hastings Hall	1519 Massachusetts Ave	Cambridge	1888
CAM.345	Harvard Epworth Methodist Church	1555 Massachusetts Ave	Cambridge	1891
CAM.1334	Francis - Allyn House	1564 Massachusetts Ave	Cambridge	1831
CAM.1333	Sawin - Cobb - Wilson House	1626 Massachusetts Ave	Cambridge	1868
CAM.238	Saunders, Charles Hicks House	1627 Massachusetts Ave	Cambridge	1862
CAM.239	Montrose, The	1648 Massachusetts Ave	Cambridge	1898
CAM.240	Dunvegan, The	1654 Massachusetts Ave	Cambridge	1898
CAM.241	Worcester, Frederick House	1734 Massachusetts Ave	Cambridge	1886
CAM.242	North Avenue Congregational Church	1803 Massachusetts Ave	Cambridge	1845
CAM.243	Lovell Block	1853 Massachusetts Ave	Cambridge	1882
CAM.1385	Cambridge Masonic Temple	1950 Massachusetts Ave	Cambridge	1910
CAM.244	Saint James Episcopal Church	1991 Massachusetts Ave	Cambridge	1888
CAM.245	Henderson Carriage Repository	2067-2089 Massachusetts Ave	Cambridge	1892
CAM.246	Cornerstone Baptist Church	2114 Massachusetts Ave	Cambridge	1854
CAM.247	Mead, Alpheus House	2200 Massachusetts Ave	Cambridge	1867
CAM.248	Snow, Daniel House	2210 Massachusetts Ave	Cambridge	1868
CAM.249	McLean, Isaac House	2218 Massachusetts Ave	Cambridge	1894
CAM.250	Farwell, R. H. Double House	2222-2224 Massachusetts Ave	Cambridge	1891
CAM.251	Saint John's Roman Catholic Church	2270 Massachusetts Ave	Cambridge	1904
CAM.1390		2557 Massachusetts Ave	Cambridge	
CAM.1376	Matignon Central Catholic High School	1 Matignon Rd	Cambridge	1946
CAM.1375	Immaculate Conception Catholic Church Convent	33 Matignon Rd	Cambridge	1954
CAM.252	Cambridge Almshouse	45 Matignon Rd	Cambridge	1850
CAM.1374	Cambridge Almshouse Dormitory	45 Matignon Rd	Cambridge	c 1887
CAM.566	M. I. T Pierce, Henry L. Engineering Laboratory	Memorial Dr	Cambridge	1913
CAM.567	M. I. T Buildings #2 and #8	Memorial Dr	Cambridge	1913
CAM.568	M. I. T Pratt School of Naval Architecture	Memorial Dr	Cambridge	1919
CAM.569	M. I. T Homburg Infirmary	Memorial Dr	Cambridge	1927
CAM.570	M. I. T Eastman, George Research Laboratories	Memorial Dr	Cambridge	1931
CAM.571	M. I. T Rogers, William Barton Building	Memorial Dr	Cambridge	1937
CAM.572	M. I. T Walker Memorial	Memorial Dr	Cambridge	1913
CAM.573	M. I. T President's House	Memorial Dr	Cambridge	1913
CAM.574	M. I. T Senior House	Memorial Dr	Cambridge	1913
CAM.575	M. I. T Hayden Library	Memorial Dr	Cambridge	1949
CAM.930	Memorial Drive	Memorial Dr	Cambridge	1896
CAM.933	M. I. T. Memorial Underpass	Memorial Dr	Cambridge	1931

Inv. No.	Property Name	Street	Town	Year
CAM.934	Reid, William J. Overpass	Memorial Dr	Cambridge	1939
CAM.1332	Little, Arthur D. Inc. Building	Memorial Dr	Cambridge	1917
CAM.1398	Lever Brothers Company Administration Building	50 Memorial Dr	Cambridge	1938
CAM.253		100 Memorial Dr	Cambridge	1950
CAM.254	M. I. T. Main Courtyard	182-226 Memorial Dr	Cambridge	1913
CAM.255	Riverbank Court Hotel	305 Memorial Dr	Cambridge	1900
CAM.256	Baker House	362 Memorial Dr	Cambridge	1947
CAM.1327	Boston University Boat House	619 Memorial Dr	Cambridge	1913
CAM.257	B & B Chemical Company	780 Memorial Dr	Cambridge	1937
CAM.258	Peabody Terrace	900 Memorial Dr	Cambridge	1958
CAM.1201	Dunster House - Harvard University	945 Memorial Dr	Cambridge	1929
CAM.1202	Gore Hall - Harvard University	960 Memorial Dr	Cambridge	1913
CAM.1203	Standish Hall - Harvard University	966 Memorial Dr	Cambridge	1913
CAM.1204	Eliot House - Harvard University	967 Memorial Dr	Cambridge	1930
CAM.1324	Harvard University - Weld Boat House	971 Memorial Dr	Cambridge	1906
CAM.259	Conventual Church of Saint Mary and Saint John	980 Memorial Dr	Cambridge	1936
CAM.1267	Radnor Hall	983-984 Memorial Dr	Cambridge	1916
CAM.1268	Hampstead Hall	985-986 Memorial Dr	Cambridge	1916
CAM.1269	Barrington Court	987-989 Memorial Dr	Cambridge	1924
CAM.1270	Strathcona-on-the-Charles	992-993 Memorial Dr	Cambridge	1914
CAM.1300		2 Mercer Cir	Cambridge	1894
CAM.1287		3 Mercer Cir	Cambridge	1885
CAM.1288		4 Mercer Cir	Cambridge	1885
CAM.1294		5 Mercer Cir	Cambridge	1887
CAM.1291		6 Mercer Cir	Cambridge	1886
CAM.1307	Harris, William F. House	7 Mercer Cir	Cambridge	1922
CAM.1289		8 Mercer Cir	Cambridge	1885
CAM.1292		9 Mercer Cir	Cambridge	1886
CAM.1151		11-15 Mifflin Pl	Cambridge	1901
CAM.1152		12-14 Mifflin Pl	Cambridge	1913
CAM.1153		17-19 Mifflin Pl	Cambridge	1972
CAM.1205	McKinlock Hall - Harvard University	8 Mill St	Cambridge	1926
CAM.1206	Leverett House Library and Towers - Harvard Univ.	14-18 Mill St	Cambridge	1958
CAM.263	Cambridge Neighborhood House	79 Moore St	Cambridge	c 1821
CAM.264	Reversible Collar Company Building	25-27 Mount Auburn St	Cambridge	1860
CAM.1154	Saint Paul's Rectory	32-36 Mount Auburn St	Cambridge	1924
CAM.1155	Speakers Club	43-45 Mount Auburn St	Cambridge	1845

Page 27 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1156		45 1/2 Mount Auburn St	Cambridge	1971
CAM.1157		47-49 Mount Auburn St	Cambridge	1926
CAM.1158	Claverly Hall	63 Mount Auburn St	Cambridge	1892
CAM.1159		65R Mount Auburn St	Cambridge	1957
CAM.1160	Ridgely Hall	65 Mount Auburn St	Cambridge	1904
CAM.1161	Manter Hall School	71-77 Mount Auburn St	Cambridge	1927
CAM.1162	Phoenix - S. K. Club	72 Mount Auburn St	Cambridge	1915
CAM.1163	Iroquois Club	74 Mount Auburn St	Cambridge	1916
CAM.1164	Spee Club	76 Mount Auburn St	Cambridge	1931
CAM.1165	Willard, Lucy House	78 Mount Auburn St	Cambridge	1839
CAM.1166		90 Mount Auburn St	Cambridge	1971
CAM.1167		92-96 Mount Auburn St	Cambridge	1895
CAM.1168		95-97 Mount Auburn St	Cambridge	1920
CAM.1169		99 Mount Auburn St	Cambridge	c 1919
CAM.1170	Cantabrigia Club	100 Mount Auburn St	Cambridge	c 1919
CAM.1171		102 Mount Auburn St	Cambridge	1869
CAM.1172		104 Mount Auburn St	Cambridge	1983
CAM.1173		110 Mount Auburn St	Cambridge	1959
CAM.9	Boston Elevated Railway Division 7 Headquarters	112 Mount Auburn St	Cambridge	c 1911
CAM.1175	Trinity Hall	114-120 Mount Auburn St	Cambridge	1892
CAM.1177	Waverly Hall	115 Mount Auburn St	Cambridge	1902
CAM.1178		119-123 Mount Auburn St	Cambridge	1988
CAM.1176		120R Mount Auburn St	Cambridge	1982
CAM.1126	U. S. Post Office - Cambridge Branch	125 Mount Auburn St	Cambridge	1953
CAM.791		151 Mount Auburn St	Cambridge	1853
CAM.792		153 Mount Auburn St	Cambridge	1874
CAM.789		154 Mount Auburn St	Cambridge	1852
CAM.790		156-158 Mount Auburn St	Cambridge	1856
CAM.265		173 Mount Auburn St	Cambridge	r 1905
CAM.266		175 Mount Auburn St	Cambridge	r 1895
CAM.267		259 Mount Auburn St	Cambridge	c 1850
CAM.268	Mount Auburn Hospital - Surgical Building	330 Mount Auburn St	Cambridge	1897
CAM.269	Mount Auburn Hospital - Main Building	330 Mount Auburn St	Cambridge	1886
CAM.801	Mount Auburn Cemetery	580 Mount Auburn St	Cambridge	1831
CAM.936	Mount Auburn Cemetery Fence and Gates	580 Mount Auburn St	Cambridge	1843
CAM.992	Mount Auburn Cemetery - Copenhagen, Maria Angel	580 Mount Auburn St	Cambridge	1872

Inv. No.	Property Name	Street	Town	Year
CAM.270	Mount Auburn Cemetery Reception House	583 Mount Auburn St	Cambridge	1870
CAM.1330	DeRosay - McNamee House	50 Mount Vernon St	Cambridge	1896
CAM.557		1-2 Norfolk Pl	Cambridge	1844
CAM.558		3 Norfolk Pl	Cambridge	1846
CAM.593	Powers, Hannah - Ginsberg, Harris Building	7-15 Norfolk St	Cambridge	c 1894
CAM.562	Hotel Norfolk	30 Norfolk St	Cambridge	1886
CAM.560		51 Norfolk St	Cambridge	c 1885
CAM.561		59 Norfolk St	Cambridge	1886
CAM.554		65-67 Norfolk St	Cambridge	1844
CAM.559	Pollard, John House	68-72 Norfolk St	Cambridge	1859
CAM.552		69 Norfolk St	Cambridge	1843
CAM.555		71-73 Norfolk St	Cambridge	1844
CAM.556		75-77 Norfolk St	Cambridge	1844
CAM.551	Fuller, Robert House	79 Norfolk St	Cambridge	1843
CAM.553		87 Norfolk St	Cambridge	1843
CAM.563	Hotel Franklin	90 Norfolk St	Cambridge	1886
CAM.1392	Saint Mary of the Annunciation Catholic Church	134 Norfolk St	Cambridge	r 1865
CAM.550		1-2 Norfolk Terr	Cambridge	1839
CAM.913	East Cambridge Viaduct - Lechmere Viaduct	O'Brien Hwy	Cambridge	1910
CAM.9020	Boston and Lowell Railroad Retaining Wall	O'Brien Hwy	Cambridge	c 1857
CAM.349	Lockhart, William L. Coffin Factory Warehouse	195-199 O'Brien Hwy	Cambridge	1873
CAM.271	Barnes, James B. House	200 O'Brien Hwy	Cambridge	1824
CAM.348	Lockhart, William L. Coffin Factory Main Building	201 O'Brien Hwy	Cambridge	r 1870
CAM.272	Lockart, William L. Company Building	209 O'Brien Hwy	Cambridge	c 1859
CAM.1400	Morrell, John and Company Branch House	221 O'Brien Hwy	Cambridge	1929
CAM.1399	Whitehead Metal Products Company	225 O'Brien Hwy	Cambridge	1929
CAM.273	Aborn, John House	41 Orchard St	Cambridge	1846
CAM.274	Billings, Frederick House	45 Orchard St	Cambridge	1846
CAM.1310	Davenport - Allen and Endicott Factory West Wing	Osborn St	Cambridge	1848
CAM.1311	Davenport - Allen Factory West Wing Extension	Osborn St	Cambridge	1848
CAM.1312	Allen and Endicott Factory Extension	Osborn St	Cambridge	1896
CAM.1313	Allen and Endicott Factory Extension	Osborn St	Cambridge	1896
CAM.461	Putnam School	Otis St	Cambridge	1889
CAM.465	Saint Hedwig's Parish Church	Otis St	Cambridge	1939
CAM.468	Otis Hospital	Otis St	Cambridge	
CAM.371	Woodbury, James A Geldowsky, Ferdinand Building	2-28 Otis St	Cambridge	1869

Inv. No.	Property Name	Street	Town	Year
CAM.374		31 Otis St	Cambridge	1900
CAM.473	Hall, Lewis and William A. Rowhouse	55 Otis St	Cambridge	1851
CAM.474	Hall, Lewis and William A. Rowhouse	57 Otis St	Cambridge	1851
CAM.475	Hall, Lewis and William A. Rowhouse	59 Otis St	Cambridge	1851
CAM.485	Hazard, Samuel L. House	60 Otis St	Cambridge	1871
CAM.476	Hall, Lewis and William A. Rowhouse	61 Otis St	Cambridge	1851
CAM.484		62 Otis St	Cambridge	
CAM.472	Sortwell, Daniel R. Double House	63-65 Otis St	Cambridge	1871
CAM.483		64 Otis St	Cambridge	
CAM.471		65 1/2 Otis St	Cambridge	
CAM.482	Jones, Andrew - Hall, William A. Double House	66-68 Otis St	Cambridge	1846
CAM.470	Goss, Abiel Double House	67-69 Otis St	Cambridge	1839
CAM.481		70 Otis St	Cambridge	
CAM.469		73-75 Otis St	Cambridge	
CAM.480		74 Otis St	Cambridge	
CAM.479		78 Otis St	Cambridge	
CAM.477	Clark, Josias - Cummings, Daniel P. Rowhouse	80 Otis St	Cambridge	1861
CAM.478	Clark, Josias - Cummings, Daniel P. Rowhouse	82 Otis St	Cambridge	1861
CAM.467	Deshon, Royal P. House	93 Otis St	Cambridge	1842
CAM.460		94 Otis St	Cambridge	
CAM.466		95-97 Otis St	Cambridge	
CAM.459		96 Otis St	Cambridge	
CAM.458		98 Otis St	Cambridge	
CAM.457	Taylor, Oliver House	100 Otis St	Cambridge	1848
CAM.455	Adams, Jabez F Atwood, Samuel S. Rowhouse	102 Otis St	Cambridge	1848
CAM.464	Bridgeman, John L. Double House	103-105 Otis St	Cambridge	1843
CAM.456	Adams, Jabez F Atwood, Samuel S. Rowhouse	104 Otis St	Cambridge	1848
CAM.454		106-108 Otis St	Cambridge	
CAM.463		107-109 Otis St	Cambridge	
CAM.453		110 Otis St	Cambridge	
CAM.462		113 Otis St	Cambridge	
CAM.439		117 1/2 Otis St	Cambridge	
CAM.440		117-119 Otis St	Cambridge	
CAM.451		118 Otis St	Cambridge	
CAM.450		120 Otis St	Cambridge	
CAM.448	Dennison, James Double House	122-124 Otis St	Cambridge	1870
CAM.449		122 1/2-124 1/2 Otis St	Cambridge	
CAM.438		123 Otis St	Cambridge	
Thursday, Ma	av 23 2019			Page 30 of 37

Page 30 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.437		125-127 Otis St	Cambridge	
CAM.447		126-128 Otis St	Cambridge	
CAM.436		129-131 Otis St	Cambridge	
CAM.446		130 Otis St	Cambridge	
CAM.445		132 Otis St	Cambridge	
CAM.435		133-135 Otis St	Cambridge	
CAM.275	Hoyt, Benjamin House	134 Otis St	Cambridge	1868
CAM.443		136-138 Otis St	Cambridge	
CAM.434	Warren, Moses - Smith, Benjamin G. Rowhouse	137 Otis St	Cambridge	1852
CAM.1339	Warren, Moses - Smith, Benjamin G. Rowhouse	139 Otis St	Cambridge	1852
CAM.442		140 Otis St	Cambridge	1895
CAM.1340	Warren, Moses - Smith, Benjamin G. Rowhouse	141 Otis St	Cambridge	1852
CAM.1341	Warren, Moses - Smith, Benjamin G. Rowhouse	143 Otis St	Cambridge	1852
CAM.1342	Warren, Moses - Smith, Benjamin G. Rowhouse	145 Otis St	Cambridge	1852
CAM.433	Fraser, John B. Double House	147-149 Otis St	Cambridge	1846
CAM.432		151 Otis St	Cambridge	
CAM.1179	Coop Annex	18 Palmer St	Cambridge	1964
CAM.276	Urban Rowhouse	30-38 Pearl St	Cambridge	1874
CAM.277	Urban Rowhouse	40-50 Pearl St	Cambridge	1875
CAM.278	Valentine Soap Workers' Cottage	101 Pearl St	Cambridge	1835
CAM.1368	Blessed Sacrament Roman Catholic Church	175 Pearl St	Cambridge	1907
CAM.1370	Blessed Sacrament Roman Catholic Church Rectory	189 Pearl St	Cambridge	1868
CAM.279		3 Phillips Pl	Cambridge	
CAM.280		5 Phillips Pl	Cambridge	c 1845
CAM.281		7 Phillips Pl	Cambridge	1898
CAM.282		9 Phillips Pl	Cambridge	r 1870
CAM.1180	Harvard Crimson Newspaper Office	14-18 Plympton St	Cambridge	1915
CAM.1181	Crimson Building Annex	22 Plympton St	Cambridge	1961
CAM.1182	Adams House Dining Hall	28 Plympton St	Cambridge	1930
CAM.1183	Russell Hall	28 Plympton St	Cambridge	1931
CAM.1184	Russell Hall	30-30A Plympton St	Cambridge	1887
CAM.1207	Quincy House - Harvard University	58 Plympton St	Cambridge	1958
CAM.1208	Mather Hall - Harvard University	68-88 Plympton St	Cambridge	1930
CAM.1209		101-103 Plympton St	Cambridge	1870
CAM.1382	Brooks Apartments - Winthrop, John Chambers	78-80 Porter Rd	Cambridge	1915
CAM.283	Willis, Stillman House	1 Potter Pk	Cambridge	1839
CAM.1401	Volpe Center - High Rise Laboratory	2 Potter St	Cambridge	c 1965

Inv. No.	Property Name	Street	Town	Year
CAM.1403	Volpe Center - Space Guidance Building	2 Potter St	Cambridge	c 1965
CAM.1404	Volpe Center - Space Optics Building	2 Potter St	Cambridge	c 1965
CAM.284	Saunders, William House	6 Prentiss St	Cambridge	1843
CAM.1352	Beck - Warren House	1 Prescott St	Cambridge	1833
CAM.285		16 Prescott St	Cambridge	1873
CAM.291	Carpenter Center for the Visual Arts	19 Prescott St	Cambridge	1963
CAM.582	New England Gas and Electric Association I Bldg	45 Prospect St	Cambridge	1960
CAM.286	Prospect Congregational Church	99 Prospect St	Cambridge	1851
CAM.287	Baldwin, Maria House	196 Prospect St	Cambridge	r 1845
CAM.288	Sands, Hiram House	22 Putnam Ave	Cambridge	1848
CAM.293	Harvard Union	Quincy St	Cambridge	1900
CAM.986	Harvard University - Hallowell Gate	10 Quincy St	Cambridge	1928
CAM.289	Dana, Richard Henry - Palmer, George Herbert House	12-16 Quincy St	Cambridge	1822
CAM.952	Harvard University - Quincy Street Gate	17 Quincy St	Cambridge	1936
CAM.1213	Harvard University - President's House	17 Quincy St	Cambridge	1911
CAM.290	Fogg Art Museum	26-32 Quincy St	Cambridge	1925
CAM.292	Church of the New Jerusalem	50 Quincy St	Cambridge	1903
CAM.1266		60 Raymond St	Cambridge	1927
CAM.298	Mason, W. A. House	87 Raymond St	Cambridge	1846
CAM.299	Stickney, N. U Shepard, S. P. Double House	11-13 Remington St	Cambridge	1846
CAM.300	Hooper, Edward W Eliot, Rev. Samuel A. House	25-27 Reservoir Rd	Cambridge	1872
CAM.301		59 Rice St	Cambridge	1847
CAM.327	Hews Pottery Company Carriage House	202 Richdale Ave	Cambridge	1897
CAM.302	Kidder - Sargent - McCrehan House	146 Rindge Ave	Cambridge	1792
CAM.303	Wyeth Brickyard Superintendent's House	336 Rindge Ave	Cambridge	c 1848
CAM.923	River Street Bridge	River St	Cambridge	1926
CAM.304	Urban Rowhouse	26-32 River St	Cambridge	1860
CAM.330	Ricker, George and Jerediah House	109-113 River St	Cambridge	1844
CAM.305	River Street Firehouse	176 River St	Cambridge	1890
CAM.1211		11 Riverview Ave	Cambridge	1899
CAM.922	Boston University Bridge	Rt 2	Cambridge	1928
CAM.306	Soule, Lawrence Porter House	11 Russell St	Cambridge	1879
CAM.307	Wood, James A. House	3 Sacramento St	Cambridge	1888
CAM.1239	Winthrop Hall - Episcopal Theological School	Saint John's Rd	Cambridge	1892
CAM.529		6-8 Salem St	Cambridge	c 1829
CAM.530		10 Salem St	Cambridge	c 1840

nv. No.	Property Name	Street	Town	Year
CAM.531		15 Salem St	Cambridge	c 1841
CAM.415	Hastings, Deborah House	72 Sciarappa St	Cambridge	1823
CAM.416		74 Sciarappa St	Cambridge	
CAM.401	Pendexter, Charles House	80-82 Sciarappa St	Cambridge	1847
CAM.1321	Boston Museum of Science	Science Park	Cambridge	1951
CAM.1322	Hayden Planetarium	Science Park	Cambridge	1958
CAM.770		2 Scott St	Cambridge	1889
CAM.771	Thaxter, Roland House	7 Scott St	Cambridge	1891
CAM.772		8 Scott St	Cambridge	1889
CAM.773		11 Scott St	Cambridge	1893
CAM.774		12 Scott St	Cambridge	1894
CAM.775		14 Scott St	Cambridge	1927
CAM.776		18 Scott St	Cambridge	1928
CAM.375	Roby, Ebenezer Rowhouse	30 Second St	Cambridge	1836
CAM.376	Roby, Ebenezer Rowhouse	32 Second St	Cambridge	1836
CAM.377	Roby, Ebenezer Rowhouse	34 Second St	Cambridge	1836
CAM.364	Hall, Jesse Rowhouse	36 Second St	Cambridge	1842
CAM.365	Hall, Jesse Rowhouse	38 Second St	Cambridge	1842
CAM.366	Hall, Jesse Rowhouse	40 Second St	Cambridge	1842
CAM.367	Hall, Jesse Rowhouse	42 Second St	Cambridge	1842
CAM.368	Hall, Jesse Rowhouse	44 Second St	Cambridge	1842
CAM.369	Hall, Jesse Rowhouse	46 Second St	Cambridge	1842
CAM.370		50 Second St	Cambridge	
CAM.308	American Net and Twine Company Factory	155R Second St	Cambridge	1875
CAM.777		1 Shady Hill Sq	Cambridge	1915
CAM.778		2-3 Shady Hill Sq	Cambridge	1915
CAM.779		4-5 Shady Hill Sq	Cambridge	1915
CAM.780		6-7 Shady Hill Sq	Cambridge	1915
CAM.781		8-9 Shady Hill Sq	Cambridge	1915
CAM.782		10-11 Shady Hill Sq	Cambridge	1915
CAM.783		12 Shady Hill Sq	Cambridge	1915
CAM.309	Eliot Hall	51 Shepard St	Cambridge	1907
CAM.310	Bertram Hall	53 Shepard St	Cambridge	1901
CAM.311	Watson, Abraham Jr. House	181-183 Sherman St	Cambridge	c 1750
CAM.506	Sacred Heart Roman Catholic Church	39 Sixth St	Cambridge	1874
CAM.431		40 Sixth St	Cambridge	
CAM.508	Sacred Heart Roman Catholic Church Rectory	49 Sixth St	Cambridge	1885
CAM.927	Eliot Bridge	Soldier's Field Rd	Cambridge	1950

Page 33 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1210	Bryan Hall - Harvard University	14-24 South St	Cambridge	1930
CAM.312	Stedman, Samuel House	17 South St	Cambridge	1826
CAM.1185	Harvard Advocate Building	21 South St	Cambridge	1956
CAM.313	Dodge, Edward House	70 Sparks St	Cambridge	1878
CAM.325	Harugari Hall	154 Spring St	Cambridge	1873
CAM.1186		4-6 Story St	Cambridge	1966
CAM.1187		8-12 Story St	Cambridge	1969
CAM.1188		14-16 Story St	Cambridge	1970
CAM.353	Blake and Knowles Core Shop #1	Third St	Cambridge	c 1889
CAM.354	Blake and Knowles Core Shop #2	Third St	Cambridge	c 1890
CAM.505	Lechmere Point Corporation Row House	25 Third St	Cambridge	c 1821
CAM.381	Rollins, John W. Rowhouse	83 Third St	Cambridge	1860
CAM.382	Rollins, John W. Rowhouse	85 Third St	Cambridge	1860
CAM.383	Rollins, John W. Rowhouse	87 Third St	Cambridge	1860
CAM.384	Rollins, John W. Rowhouse	89 Third St	Cambridge	1860
CAM.331	Old Middlesex County Superior Courthouse	90 Third St	Cambridge	1814
CAM.385	Rollins, John W. Rowhouse	91 Third St	Cambridge	1860
CAM.386	Rollins, John W. Rowhouse	93 Third St	Cambridge	1860
CAM.387	Rollins, John W. Rowhouse	95 Third St	Cambridge	1860
CAM.314	Holy Cross Polish National Catholic Church	99 Third St	Cambridge	1827
CAM.315	Bottle House Block	204-214 Third St	Cambridge	1826
CAM.350	Blake and Knowles Machine Shop #1	265 Third St	Cambridge	1889
CAM.351	Blake and Knowles Office Headhouse	265 Third St	Cambridge	1892
CAM.355	Blake and Knowles Smith Shop and Brass Foundry	275 Third St	Cambridge	c 1890
CAM.326	Cambridge Gas Light Company Purifying Plant	354 Third St	Cambridge	1908
CAM.388	Stevens, Atherton H. Rowhouse	59 Thorndike St	Cambridge	1827
CAM.395	Smallidge, Samuel House	66 Thorndike St	Cambridge	1827
CAM.389	Bates, Moses Jr. House	69 Thorndike St	Cambridge	1844
CAM.396	Buck, Silas B. House	70 Thorndike St	Cambridge	1845
CAM.390	Tufts, Sophia Kimball Double House	71-73 Thorndike St	Cambridge	1857
CAM.397	Wellington, Peter House	74 Thorndike St	Cambridge	1843
CAM.391		75 Thorndike St	Cambridge	
CAM.398		76 Thorndike St	Cambridge	
CAM.392		77 Thorndike St	Cambridge	
CAM.399		78 Thorndike St	Cambridge	
CAM.393		79-81 Thorndike St	Cambridge	
CAM.400		80 Thorndike St	Cambridge	

Inv. No.	Property Name	Street	Town	Year
CAM.394		83 Thorndike St	Cambridge	
CAM.402	Stickney, Francis H Davies, Benjamin Rowhouse	84 Thorndike St	Cambridge	1867
CAM.417	Clark, Cornelius - Kneeland, W. W. House	85 Thorndike St	Cambridge	1822
CAM.403	Stickney, Francis H Davies, Benjamin Rowhouse	86 Thorndike St	Cambridge	1867
CAM.404	Stickney, Francis H Davies, Benjamin Rowhouse	88 Thorndike St	Cambridge	1867
CAM.418		89-91 Thorndike St	Cambridge	
CAM.405	Stickney, Francis H Davies, Benjamin Rowhouse	90 Thorndike St	Cambridge	1867
CAM.406	Stickney, Francis H Davies, Benjamin Rowhouse	92 Thorndike St	Cambridge	1867
CAM.419	Whitacre, Celeste I. Rowhouse	93 Thorndike St	Cambridge	1885
CAM.407	Stickney, Francis H Davies, Benjamin Rowhouse	94 Thorndike St	Cambridge	1867
CAM.420	Whitacre, Celeste I. Rowhouse	95 Thorndike St	Cambridge	1885
CAM.408	Train, Isaac House	96 Thorndike St	Cambridge	1826
CAM.421	Whitacre, Celeste I. Rowhouse	97 Thorndike St	Cambridge	1885
CAM.422	Davies, Daniel House	97 1/2 Thorndike St	Cambridge	1843
CAM.409		98 Thorndike St	Cambridge	
CAM.423		99 Thorndike St	Cambridge	
CAM.424	Daniels, Granville W. House	101 Thorndike St	Cambridge	1868
CAM.410		102 Thorndike St	Cambridge	
CAM.411	Spare, Elijah Jr. Double House	104-106 Thorndike St	Cambridge	1846
CAM.425	Eaton, Charles House	109 Thorndike St	Cambridge	1857
CAM.412	Quimby, Amos House	110 Thorndike St	Cambridge	1857
CAM.426		111-113 Thorndike St	Cambridge	
CAM.413	Stickney, Francis H. Double House	112-114 Thorndike St	Cambridge	1863
CAM.427		113 1/2 Thorndike St	Cambridge	
CAM.414	Bacon, Henry A. House	116 Thorndike St	Cambridge	1865
CAM.507	Sacred Heart Roman Catholic School and Convent	163 Thorndike St	Cambridge	1902
CAM.316	Craigie Arms	2-6 University Rd	Cambridge	1897
CAM.317	Wyeth, Jacob - Smith, Ebenezer House	152 Vassal Ln	Cambridge	1820
CAM.360	Metropolitan Supply Company Warehouse	269 Vassar St	Cambridge	1948
CAM.361	Hovey, F. A. and Company Warehouse	271-275 Vassar St	Cambridge	c 1940
CAM.362	Metropolitan Supply Company Warehouse	277-287 Vassar St	Cambridge	1939
CAM.363	Metropolitan Supply Company Warehouse	289-293 Vassar St	Cambridge	1939
CAM.989	Walden Street Cattle Pass	Walden St	Cambridge	1857

Page 35 of 37

Inv. No.	Property Name	Street	Town	Year
CAM.1283	Bennink - Douglas Double Cottage	35-37 Walker St	Cambridge	1874
CAM.1284	Bennink - Douglas Double Cottage	39-41 Walker St	Cambridge	1874
CAM.1285	Bennink - Douglas Double Cottage	43-45 Walker St	Cambridge	1874
CAM.1286	Bennink - Douglas Double Cottage	49-51 Walker St	Cambridge	1874
CAM.1034	Sands, Orrin E. House	2 Walnut Ave	Cambridge	1911
CAM.1032		4 Walnut Ave	Cambridge	1878
CAM.1033	Niles, Jacob Harris House	6 Walnut Ave	Cambridge	1884
CAM.1031	Niles, Eugene M. House	9 Walnut Ave	Cambridge	1887
CAM.318	Stanstead, The	19 Ware St	Cambridge	1887
CAM.799	Ritchie, David House	26 Washington Ave	Cambridge	1889
CAM.793	Brown, Laura House	27 Washington Ave	Cambridge	1908
CAM.794	Mellen, James House	33 Washington Ave	Cambridge	1887
CAM.795	Kelley, Stillman F. House	49 Washington Ave	Cambridge	1887
CAM.1000	Boardman, Charles House	58 Washington Ave	Cambridge	1880
CAM.797	Mansfield, Gardiner House	63 Washington Ave	Cambridge	1873
CAM.798	Green, Charles G. House	71 Washington Ave	Cambridge	1877
CAM.1001	Boynton, Morris House	78 Washington Ave	Cambridge	c 1874
CAM.319	Melendy, Henry J. House	81 Washington Ave	Cambridge	1871
CAM.1002		86-88 Washington Ave	Cambridge	1870
CAM.1003		92 Washington Ave	Cambridge	1876
CAM.1004	Hutchins, Elizabeth House	108 Washington Ave	Cambridge	1924
CAM.541	Whittemore, Rev. Thomas Double House	271-273 Washington St	Cambridge	1837
CAM.540	Whittemore, Rev. Thomas Double House	288 Washington St	Cambridge	1837
CAM.539	Paige, Rev. Lucius R. House	296 Washington St	Cambridge	1837
CAM.346		1 Waterhouse St	Cambridge	1916
CAM.320	Vassall - Waterhouse - Ware House	7 Waterhouse St	Cambridge	c 1753
CAM.347		9 Waterhouse St	Cambridge	1887
CAM.335	Christian Science Church	13 Waterhouse St	Cambridge	1923
CAM.988	Fort Washington	95 Waverly St	Cambridge	
CAM.924	Western Avenue Bridge	Western Ave	Cambridge	1924
CAM.638	Cambridge Police Headquarters	5 Western Ave	Cambridge	1933
CAM.948	Central Square Park	22 Western Ave	Cambridge	1987
CAM.321	Read, Cheney House	135 Western Ave	Cambridge	1846
CAM.323	Hasey, Abraham - Wheat, Dr. Samuel House	8 Willard St	Cambridge	c 1730
CAM.514	Hixon, Edward House	3 William St	Cambridge	1857
CAM.1378	Immaculate Conception (Lithuanian) Catholic Church	432 Windsor St	Cambridge	1910
CAM.1379	Immaculate Conception (Lithuanian) Church	432 Windsor St	Cambridge	1972

Inv. No.	Property Name	Street	Town	Year
	Rectory			
CAM.1380	Immaculate Conception Church Rectory Metal Garage	432 Windsor St	Cambridge	1941
CAM.1381	Immaculate Conception Church Rectory Wood Garage	432 Windsor St	Cambridge	1948
CAM.500		19 Winter St	Cambridge	r 1855
CAM.492		21 Winter St	Cambridge	c 1854
CAM.486	Leighton, Thomas H. House	22 Winter St	Cambridge	1833
CAM.491		24 Winter St	Cambridge	c 1854
CAM.493		25 Winter St	Cambridge	c 1854
CAM.494		27 Winter St	Cambridge	c 1854
CAM.496		28-30 Winter St	Cambridge	c 1854
CAM.495		29 Winter St	Cambridge	c 1854
CAM.497		31-33 Winter St	Cambridge	c 1854
CAM.501		34-42 Winter St	Cambridge	r 1875
CAM.498		61 Winter St	Cambridge	c 1854
CAM.499		65 Winter St	Cambridge	c 1854
CAM.489	Stevens, Atherton Haugh House	67 Winter St	Cambridge	1843
CAM.490	Stevens, Atherton Haugh House	71 Winter St	Cambridge	1843
CAM.487	Stevens, Atherton Haugh House	74 Winter St	Cambridge	1838
CAM.1344		75 Winter St	Cambridge	
CAM.1345	Stevens, Atherton Haugh House	77 Winter St	Cambridge	1838
CAM.488	Stevens, Atherton Haugh House	79 Winter St	Cambridge	1838
CAM.1189	Metcalf, Lydia House	41 Winthrop St	Cambridge	1845
CAM.1190		65-67 Winthrop St	Cambridge	1887
CAM.1191	University Lutheran Church	66 Winthrop St	Cambridge	1950
CAM.1192		69 Winthrop St	Cambridge	r 1835
CAM.1193	Pi Eta Club	89 Winthrop St	Cambridge	r 1908
CAM.1194	Pi Eta Hall	95 Winthrop St	Cambridge	r 1896
CAM.1195	Hyde, Isaac - Taylor House	96 Winthrop St	Cambridge	1845
CAM.329	Cox - Hicks House	98 Winthrop St	Cambridge	c 1806
CAM.951	Winthrop Street Retaining Wall	98 Winthrop St	Cambridge	c 1725
CAM.1196	Dame School	106 Winthrop St	Cambridge	c 1800
CAM.909	Yerxa Street Pedestrian Subway	Yerxa St	Cambridge	1904
CAM.1391	Saint Patrick's Roman Catholic Church	40-50 York St	Cambridge	

ATTACHMENT D

RECEIVING WATER HYDROLOGIC INFORMATION

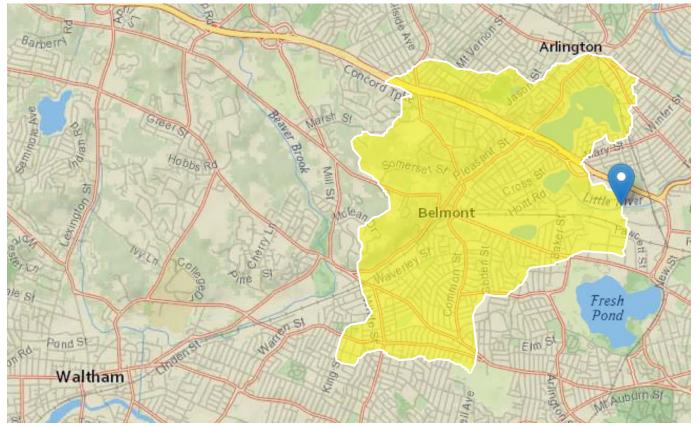
Park 77 - Segment MA71-04

 Region ID:
 MA

 Workspace ID:
 MA20190523163323386000

 Clicked Point (Latitude, Longitude):
 42.39693, -71.14849

 Time:
 2019-05-23 12:32:18 -0400



Basin Characteristics						
Parameter Code	Parameter Description	Value	Unit			
DRNAREA	Area that drains to a point on a stream	4.2	square miles			
ELEV	Mean Basin Elevation	103	feet			
LC06STOR	Percentage of water bodies and wetlands determined from the NLCD 2006	6.1	percent			
BSLDEM250	Mean basin slope computed from 1:250K DEM	2.593	percent			

Parameter Code	Parameter Description	Value	Unit
DRFTPERSTR	Area of stratified drift per unit of stream length	0.4	square mile per mile
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless
BSLDEM10M	Mean basin slope computed from 10 m DEM	5.586	percent
PCTSNDGRV	Percentage of land surface underlain by sand and gravel deposits	41.31	percent
FOREST	Percentage of area covered by forest	6.62	percent

Peak-Flow Statistics Parameters [Peak Statewide 2016 5156]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.2	square miles	0.16	512
ELEV	Mean Basin Elevation	103	feet	80.6	1948
LC06STOR	Percent Storage from NLCD2006	6.1	percent	0	32.3

Peak-Flow Statistics Flow Report [Peak Statewide 2016 5156]

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

Statistic	Value	Unit	PII	Plu	SEp
2 Year Peak Flood	120	ft^3/s	61.1	236	42.3
5 Year Peak Flood	197	ft^3/s	98.8	392	43.4
10 Year Peak Flood	257	ft^3/s	126	523	44.7
25 Year Peak Flood	343	ft^3/s	162	724	47.1
50 Year Peak Flood	414	ft^3/s	190	903	49.4
100 Year Peak Flood	489	ft^3/s	218	1100	51.8
200 Year Peak Flood	571	ft^3/s	246	1320	54.1
500 Year Peak Flood	688	ft^3/s	301	1570	57.6

Peak-Flow Statistics Citations

Zarriello, P.J.,2017, Magnitude of flood flows at selected annual exceedance probabilities for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2016–5156, 99 p. (https://dx.doi.org/10.3133/sir20165156)

Low-Flow Statistics Parameters [Statewide Low Flow WRIR00 4135]						
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit	
DRNAREA	Drainage Area	4.2	square miles	1.61	149	
BSLDEM250	Mean Basin Slope from 250K DEM	2.593	percent	0.32	24.6	
DRFTPERSTR	Stratified Drift per Stream Length	0.4	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, Plu: Prediction Interval-Upper, SEp: Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	SE	SEp
7 Day 2 Year Low Flow	0.626	ft^3/s	0.184	2.05	49.5	49.5
7 Day 10 Year Low Flow	0.309	ft^3/s	0.0728	1.22	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/)

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

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.2	square miles	1.61	149

StreamStats

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRFTPERSTR	Stratified Drift per Stream Length	0.4	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1
BSLDEM250	Mean Basin Slope from 250K DEM	2.593	percent	0.32	24.6

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

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

Statistic	Value	Unit	PII	Plu	SE	SEp
50 Percent Duration	4.13	ft^3/s	1.96	8.65	17.6	17.6
60 Percent Duration	3.16	ft^3/s	1.07	9.26	19.8	19.8
70 Percent Duration	2.2	ft^3/s	0.86	5.58	23.5	23.5
75 Percent Duration	1.78	ft^3/s	0.713	4.37	25.8	25.8
80 Percent Duration	1.72	ft^3/s	0.681	4.3	28.4	28.4
85 Percent Duration	1.31	ft^3/s	0.468	3.59	31.9	31.9
90 Percent Duration	1.14	ft^3/s	0.421	3.03	36.6	36.6
95 Percent Duration	0.66	ft^3/s	0.198	2.12	45.6	45.6
98 Percent Duration	0.426	ft^3/s	0.114	1.5	60.3	60.3
99 Percent Duration	0.314	ft^3/s	0.0786	1.18	65.1	65.1

Flow-Duration 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/)

August Flow-Duration Statistics Parameters [Statewide Low Flow WRIR00 4135]						
Parameter Code	Parameter Name	Value Units	Min Limit	Max Limit		
DRNAREA	Drainage Area	4.2 square mile	es 1.61	149		

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
BSLDEM250	Mean Basin Slope from 250K DEM	2.593	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.4	square mile per mile	0	1.29
MAREGION	Massachusetts Region	0	dimensionless	0	1

August Flow-Duration 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	Plu	SE	SEp
August 50 Percent Duration	1.39	ft^3/s	0.483	3.91	33.2	33.2

August Flow-Duration 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/)

Bankfull Statistics	Parameters [Bankfull Statewide SIR2013 5155]				
Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.2	square miles	0.6	329
BSLDEM10M	Mean Basin Slope from 10m DEM	5.586	percent	2.2	23.9

Bankfull Statistics Flow Report [Bankfull Statewide SIR2013 5155]

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

Statistic	Value	Unit	SEp
Bankfull Width	25.4	ft	21.3
Bankfull Depth	1.39	ft	19.8
Bankfull Area	34.9	ft^2	29

01	9	StreamStats			
	Statistic	Value	Unit	SEp	
	Bankfull Streamflow	91	ft^3/s	55	

Bankfull Statistics Citations

5/23/20

Bent, G.C., and Waite, A.M.,2013, Equations for estimating bankfull channel geometry and discharge for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2013–5155, 62 p., (http://pubs.usgs.gov/sir/2013/5155/)

Probability Statistics Parameters [Perennial Flow Probability]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	4.2	square miles	0.01	1.99
PCTSNDGRV	Percent Underlain By Sand And Gravel	41.31	percent	0	100
FOREST	Percent Forest	6.62	percent	0	100
MAREGION	Massachusetts Region	0	dimensionless	0	1

Probability Statistics Disclaimers [Perennial Flow Probability]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errorsOne or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors

Probability Statistics Flow Report [Perennial Flow Probability]

Statistic	Value	Unit
Probability Stream Flowing Perennially	0.989	dim

Probability Statistics Citations

Bent, G.C., and Steeves, P.A.,2006, A revised logistic regression equation and an automated procedure for mapping the probability of a stream flowing perennially in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2006–5031, 107 p. (http://pubs.usgs.gov/sir/2006/5031/pdfs/SIR_2006-5031rev.pdf)

StreamStats

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.3.0



ATTACHMENT E

LABORATORY REPORTS



ANALYTICAL REPORT

Lab Number:L1922546Client:GeoInsight One Monarch Drive Littleton, MA 01460ATTN:Robert ReynoldsPhone:(978) 679-1600Project Name:77 PARK-CAMBRIDGE
Client:GeoInsight One Monarch Drive Littleton, MA 01460ATTN:Robert Reynolds (978) 679-1600
One Monarch Drive Littleton, MA 01460ATTN:Robert ReynoldsPhone:(978) 679-1600
Phone: (978) 679-1600
Project Name: 77 PARK-CAMBRIDGE
Project Number: 6638-007
Report Date: 05/31/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:05311918:14

Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1922546

 Report Date:
 05/31/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1922546-01	INFLUENT	WATER	75 NEW ST., CAMBRIDGE	01/14/19 09:45	01/14/19

Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

Lab Number: L1922546 Report Date: 05/31/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

609 Standow Kelly Stenstrom

Authorized Signature:

Title: Technical Director/Representative

Date: 05/31/19



METALS



Serial_No:05311918:14

19,200.7

AB

Project Name: Project Number:	77 PA 6638-	RK-CAMB	RIDGE				Lab Nu Report		L1922 05/31/		
,	0000			SAMP	LE RES	ULTS			00,01,		
Lab ID:	L1922	546-01					Date Co	ollected:	01/14/1	9 09:45	
Client ID:	INFLU	JENT					Date Re	eceived:	01/14/1	9	
Sample Location:	75 NE	W ST., CA	MBRIDG	E			Field Pr	ep:	Not Sp	ecified	
Sample Depth:											
Matrix:	Water										
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Hardness by S	SM 2340E	3 - Mansfiel	ld Lab								

0.660

mg/l

Hardness

467

NA 1 01/15/19 12:14 01/15/19 22:33 EPA 3005A



Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1922546

 Report Date:
 05/31/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	
Total Hardness by SM 23	340B - Mansfield Lab	for samp	ole(s): 0'	1 Batc	h: WG124	3298-1			
Hardness	ND	mg/l	0.660	NA	1	01/15/19 12:14	01/15/19 22:23	19,200.7	AB

Prep Information

Digestion Method: EPA 3005A



Lab Control Sample Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

 Lab Number:
 L1922546

 Report Date:
 05/31/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Hardness by SM 2340B - Mansfield Lab	Associated sample	e(s): 01	Batch: WG124329	8-2				
Hardness	103		-		85-115	-		



		Matrix Spike Analysis Batch Quality Control		
Project Name:	77 PARK-CAMBRIDGE	Baton Quanty control	Lab Number:	L1922546
Project Number:	6638-007		Report Date:	05/31/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Hardness by SM 2340B	- Mansfield Lat	o Associate	d sample(s)	: 01 QC Bate	ch ID: W	G1243298-3	3 QC Samp	ole: L19	22546-01	Client I	D: INF	LUENT
Hardness	467	66.2	531	97		-	-		75-125	-		20



20

Project Name: Project Number:	77 PARK-CAMBRIDGE 6638-007		Lab Duplicate Analy Batch Quality Control	sis		ab Number eport Date:	
Parameter		Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Hardness by SM 2	340B - Mansfield Lab Assoc	iated sample(s): 01	QC Batch ID: WG1243298-4	QC Sample	e: L1922546	-01 Client	ID: INFLUENT

486

mg/l

4

467

ANALYTICAL

Hardness

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: L1922546

Report Date: 05/31/19

GLOSSARY

Acronyms

Acronyms	
DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.
Footnotes	

Footnotes

Report Format: Data Usability Report



Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number:	L1922546
Report Date:	05/31/19

1

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after

adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH. Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- B The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects (flag only applies to associated field samples that have detectable concentrations of the analyte which was detected above the reporting limit in the associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- **D** Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- J Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- **S** Analytical results are from modified screening analysis.



Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1922546

 Report Date:
 05/31/19

REFERENCES

19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene **EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene. **EPA 8270D:** <u>NPW</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil. Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. EPA 245.1 Hg. SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:05311918:14

L1922546 EO 5/29/19

	CHAIN O	F CUSTO	DY,	MAGE	_OF	- Date R	ec'd in	Lab:	,/	14		1	ALPH		-	1901	C
8 Walkup Drive		Project Informa					rt Infor	mation		-	and a set	s	Billir	ıg İnfe	ormal	tion	
Westboro, MA Tet 508-898-	9220 Tel: 508-822-9300	Project Name: 7	1 Pavik	- Can	. man	, YAD	Ex	YLE	MAIL			Support 1	Contraction of the	Course of the	10000	nfo PO#:	
Client Informati	on	Project Location: -7	SAUL	SL	C. h	Regu	latory f	Require	ments	8	Proje			1.0.0	CHE TO AL A	rements	1400
Client: GROIV	sight Inc.	Project Location: 7 Project #: (o (o 3)	8-00-		Cantra	V Yes	No M	AMCPA	nalytic	al Meth	ods		0	les D	No C	CT RCP Analytical	Metho
Address: 1 M	onarch Dr. Suiter	Project Manager.	2000	0.	1.0	Q Yes		atrix Spik W1 Stan				DG?	(Requir	red for	MCP	Inorganics)	
Littleton	MADIYGOD	ALPHA Quote #:	COBUT	heyn	10:92		No N	PDES R	GP		quica	in in	and a la		ria: 18	n'Aers)	
Phone: 978	-1079-1000	Turn-Around Ti	me	NOTE A	C.L.	U Othe	r State /	Fed Pro	-/H	ARD	U			Crite	7.1	er 11 1	_
Additional F 米 나セナ (-679-1000 Segenme.com Lolds Egenme.com Project Information: Cv. 24 hr HOLDA Harmed Table	Date Due:	Day T Vequ	AT		Dates Das.	METALS: D. ABN D. D. D. 224.2 METALS: D. D. P.A.H	HETALS: DACPAS DACP 14 DRCP.	Vinti DRanges & Targets D. p. DP13	D PCB D PEST Argents D Ranges Only	PTH Commony Bring	The second second	The second second		Fundamenta Such	SAMPLI Filtration Filtration Lab to Preserva	o do
ALPHA Lab ID (Lab Use Only)	Sample ID	Coll	ection Time	Sample Matrix	Sampler	NOC: D	ETALS	ETALS: PH: C.L	PH: DR.	PCB		T		1		Lab to	
01655-01	Influent	1/14/19			LCH	1	14/	*/4		x y	17	1	H.			Sample Com	ments
02	Effluent		9:15	1	1					×4	Į	K/	xX	k	1		
Container Type	Preservative								_								
P= Plastic A= Amber glass /= Vial I= Glass I= Bacteria cup	A= None B= HCI C= HNO, D= H ₂ SO, E= NaOH	//			iner Type servative				-	+		-	-				
e 14 of 14	F= MeOH G= NaHSO: H = Na ₂ S:O: I= Ascorbic Acid J = NH ₄ Cl K= Zn Acelate C= Other	Relinquished BY	th		/Time 19 12:30 5 /// 40	ÐÆ U	lee A	elved By	10		x(-2) +/10	Date/T	ime 7:50 4:40	Alt Se	oha's 1 ie reve	iles submitted are Terms and Conditi arse side. 01-01 (rev. 12-Mar-201	ions,



ANALYTICAL REPORT

Lab Number:L1901655Client:GeoInsight One Monarch Drive Littleton, MA 01460ATTN:Robert ReynoldsPhone:(978) 679-1600Project Name:77 PARK-CAMBRIDGEProject Number:6638-007Report Date:05/24/19		
Client:GeoInsight One Monarch Drive Littleton, MA 01460ATTN:Robert ReynoldsPhone:(978) 679-1600Project Name:77 PARK-CAMBRIDGEProject Number:6638-007		
One Monarch Drive Littleton, MA 01460ATTN:Robert ReynoldsPhone:(978) 679-1600Project Name:77 PARK-CAMBRIDGEProject Number:6638-007	Lab Number:	L1901655
Phone:(978) 679-1600Project Name:77 PARK-CAMBRIDGEProject Number:6638-007	Client:	One Monarch Drive
Project Number: 6638-007		•
	Project Name:	77 PARK-CAMBRIDGE
Report Date: 05/24/19	Project Number:	6638-007
	Report Date:	05/24/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1901655

 Report Date:
 05/24/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1901655-01	INFLUENT	WATER	75 NEW ST., CAMBRIDGE	01/14/19 09:45	01/14/19
L1901655-02	EFFLUENT	WATER	75 NEW ST., CAMBRIDGE	01/14/19 09:15	01/14/19



Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

Lab Number: L1901655 Report Date: 05/24/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.



Project Name: 77 PARK-CAMBRIDGE Project Number: 6638-007
 Lab Number:
 L1901655

 Report Date:
 05/24/19

Case Narrative (continued)

Report Revision

May 24, 2019: The Semivolatile Organics reporting list has been amended to include Phenol.

Report Submission

January 28, 2019: This final report includes the results of all requested analyses. January 21, 2019: This is a preliminary report.

The analysis of Ethanol was subcontracted. A copy of the laboratory report is included as an addendum. Please note: This data is only available in PDF format and is not available on Data Merger.

Semivolatile Organics by Method 625

Effluent (L1901655-02) results are greater than Influent (L1901655-01) results. The sample containers were verified as being labeled correctly by the laboratory, and the reported results were confirmed by the screen analysis results.

Semivolatile Organics by SIM

Effluent (L1901655-02) results are greater than Influent (L1901655-01) results. The sample containers were verified as being labeled correctly by the laboratory, and the reported results were confirmed by the screen analysis results.

Total Metals

The WG1197791-4 Laboratory Duplicate RPD for copper (22%), performed on L1901655-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

The WG1197791-6 Laboratory Duplicate RPD for copper (23%), performed on L1901655-02, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

609 Sendow Kelly Stenstrom

Authorized Signature:

Title: Technical Director/Representative

Date: 05/24/19



ORGANICS



VOLATILES



		Serial_N	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L1901655-01 INFLUENT 75 NEW ST., CAMBRIDGE	Date Collected: Date Received: Field Prep:	01/14/19 09:45 01/14/19 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 128,624.1 01/15/19 12:35 GT		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by GC/MS - We	/olatile Organics by GC/MS - Westborough Lab							
Methylene chloride	ND		ug/l	1.0		1		
1,1-Dichloroethane	ND		ug/l	1.5		1		
Carbon tetrachloride	ND		ug/l	1.0		1		
1,1,2-Trichloroethane	ND		ug/l	1.5		1		
Tetrachloroethene	ND		ug/l	1.0		1		
1,2-Dichloroethane	ND		ug/l	1.5		1		
1,1,1-Trichloroethane	ND		ug/l	2.0		1		
Benzene	3.4		ug/l	1.0		1		
Toluene	1.2		ug/l	1.0		1		
Ethylbenzene	3.9		ug/l	1.0		1		
Vinyl chloride	ND		ug/l	1.0		1		
1,1-Dichloroethene	ND		ug/l	1.0		1		
cis-1,2-Dichloroethene	ND		ug/l	1.0		1		
Trichloroethene	ND		ug/l	1.0		1		
1,2-Dichlorobenzene	ND		ug/l	5.0		1		
1,3-Dichlorobenzene	ND		ug/l	5.0		1		
1,4-Dichlorobenzene	ND		ug/l	5.0		1		
p/m-Xylene	11		ug/l	2.0		1		
o-xylene	3.8		ug/l	1.0		1		
Xylenes, Total	15		ug/l	1.0		1		
Acetone	ND		ug/l	10		1		
Methyl tert butyl ether	ND		ug/l	10		1		
Tert-Butyl Alcohol	ND		ug/l	100		1		
Tertiary-Amyl Methyl Ether	ND		ug/l	20		1		



					Se	erial_No	05241911:57	
Project Name:	77 PARK-CAMBRIDGE				Lab Num	ber:	L1901655	
Project Number:	6638-007				Report D	ate:	05/24/19	
		SAMP		S				
Lab ID:	L1901655-01				Date Colle	cted:	01/14/19 09:45	
Client ID:	INFLUENT				Date Rece	ived:	01/14/19	
Sample Location:	75 NEW ST., CAMBRID	GE			Field Prep	:	Not Specified	
Sample Depth:								
Parameter		Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics b	y GC/MS - Westborough L	ab						
Surrogate				% Recovery	Qualifier		ceptance Criteria	

94

105

85

60-140 60-140

60-140

TCAL

Pentafluorobenzene

4-Bromofluorobenzene

Fluorobenzene

		Serial_N	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L1901655-01 INFLUENT 75 NEW ST., CAMBRIDGE	Date Collected: Date Received: Field Prep:	01/14/19 09:45 01/14/19 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 128,624.1-SIM 01/15/19 12:35 GT		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics by GC/MS-SIM - Westborough Lab							
1,4-Dioxane	ND		ug/l	50		1	
Surrogate			% Recovery	Qualifier		eptance iteria	
Fluorobenzene			102		6	60-140	
4-Bromofluorobenzene			82		e	60-140	



		Serial_No	p:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID:	L1901655-01	Date Collected:	01/14/19 09:45
Client ID:	INFLUENT	Date Received:	01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Water	Extraction Metho	d: EPA 504.1
Analytical Method:	14,504.1	Extraction Date:	01/15/19 15:21
Analytical Date:	01/15/19 17:02		
Analyst:	AWS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010		1	A



		Serial_N	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L1901655-02 EFFLUENT 75 NEW ST., CAMBRIDGE	Date Collected: Date Received: Field Prep:	01/14/19 09:15 01/14/19 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 128,624.1 01/15/19 13:11 GT		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Volatile Organics by GC/MS - We	/olatile Organics by GC/MS - Westborough Lab							
Methylene chloride	ND		ug/l	1.0		1		
1,1-Dichloroethane	ND		ug/l	1.5		1		
Carbon tetrachloride	ND		ug/l	1.0		1		
1,1,2-Trichloroethane	ND		ug/l	1.5		1		
Tetrachloroethene	ND		ug/l	1.0		1		
1,2-Dichloroethane	ND		ug/l	1.5		1		
1,1,1-Trichloroethane	ND		ug/l	2.0		1		
Benzene	ND		ug/l	1.0		1		
Toluene	ND		ug/l	1.0		1		
Ethylbenzene	ND		ug/l	1.0		1		
Vinyl chloride	ND		ug/l	1.0		1		
1,1-Dichloroethene	ND		ug/l	1.0		1		
cis-1,2-Dichloroethene	ND		ug/l	1.0		1		
Trichloroethene	ND		ug/l	1.0		1		
1,2-Dichlorobenzene	ND		ug/l	5.0		1		
1,3-Dichlorobenzene	ND		ug/l	5.0		1		
1,4-Dichlorobenzene	ND		ug/l	5.0		1		
p/m-Xylene	ND		ug/l	2.0		1		
o-xylene	ND		ug/l	1.0		1		
Xylenes, Total	ND		ug/l	1.0		1		
Acetone	10		ug/l	10		1		
Methyl tert butyl ether	ND		ug/l	10		1		
Tert-Butyl Alcohol	ND		ug/l	100		1		
Tertiary-Amyl Methyl Ether	ND		ug/l	20		1		



	Serial_No:05241911:57							
Project Name:	77 PARK-CAMBRIDGE				Lab Num	ber:	L1901655	
Project Number:	6638-007				Report D	ate:	05/24/19	
		SAMP		S				
Lab ID:	L1901655-02				Date Collec	cted:	01/14/19 09:15	
Client ID:	EFFLUENT				Date Recei	ved:	01/14/19	
Sample Location:	75 NEW ST., CAMBRID	GE			Field Prep:		Not Specified	
Sample Depth:								
Parameter		Result	Qualifier	Units	RL	MDL	Dilution Factor	
Volatile Organics b	y GC/MS - Westborough La	ab						
Surrogate				% Recovery	Qualifier		ceptance Criteria	

94

105

87

60-140

60-140

60-140



Pentafluorobenzene

4-Bromofluorobenzene

Fluorobenzene

		Serial_N	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID: Client ID: Sample Location:	L1901655-02 EFFLUENT 75 NEW ST., CAMBRIDGE	Date Collected: Date Received: Field Prep:	01/14/19 09:15 01/14/19 Not Specified
Sample Depth: Matrix: Analytical Method: Analytical Date: Analyst:	Water 128,624.1-SIM 01/15/19 13:11 GT		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - V	Vestborough Lab					
1,4-Dioxane	ND		ug/l	50		1
					1	ntonoo
Surrogate			% Recovery	Qualifier		ptance iteria
Surrogate Fluorobenzene			% Recovery 103	Qualifier	Cr	•



		Serial_N	o:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID:	L1901655-02	Date Collected:	01/14/19 09:15
Client ID:	EFFLUENT	Date Received:	01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Water	Extraction Metho	d: EPA 504.1
Analytical Method:	14,504.1	Extraction Date:	01/15/19 15:21
Analytical Date:	01/15/19 17:16		
Analyst:	AWS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.010		1	A



Serial_No:05241911:57

Project Name:	77 PARK-CAMBRIDGE		Lab Number:	L1901655
Project Number:	6638-007		Report Date:	05/24/19
		Method Blank Analysis Batch Quality Control		
Analytical Method: Analytical Date: Analyst:	14,504.1 01/15/19 15:52 AWS		Extraction Method: Extraction Date:	EPA 504.1 01/15/19 15:21

Parameter	Result	Qualifier	Units	RL	MDL	
Microextractables by GC - Westbord	ough Lab fo	or sample(s):	01-02	Batch: V	VG1197855-1	
1,2-Dibromoethane	ND		ug/l	0.010		А



L1901655

05/24/19

Lab Number:

Report Date:

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Method Blank Analysis Batch Quality Control

Analytical Method:128,624.1Analytical Date:01/15/19 09:30Analyst:GT

arameter	Result	Qualifier Units	RL	MDL
platile Organics by GC/MS	6 - Westborough Lab	for sample(s): 01-02	Batch:	WG1198145-4
Methylene chloride	ND	ug/l	1.0	
1,1-Dichloroethane	ND	ug/l	1.5	
Carbon tetrachloride	ND	ug/l	1.0	
1,1,2-Trichloroethane	ND	ug/l	1.5	
Tetrachloroethene	ND	ug/l	1.0	
1,2-Dichloroethane	ND	ug/l	1.5	
1,1,1-Trichloroethane	ND	ug/l	2.0	
Benzene	ND	ug/l	1.0	
Toluene	ND	ug/l	1.0	
Ethylbenzene	ND	ug/l	1.0	
Vinyl chloride	ND	ug/l	1.0	
1,1-Dichloroethene	ND	ug/l	1.0	
cis-1,2-Dichloroethene	ND	ug/l	1.0	
Trichloroethene	ND	ug/l	1.0	
1,2-Dichlorobenzene	ND	ug/l	5.0	
1,3-Dichlorobenzene	ND	ug/l	5.0	
1,4-Dichlorobenzene	ND	ug/l	5.0	
p/m-Xylene	ND	ug/l	2.0	
o-xylene	ND	ug/l	1.0	
Xylenes, Total	ND	ug/l	1.0	
Acetone	ND	ug/l	10	
Methyl tert butyl ether	ND	ug/l	10	
Tert-Butyl Alcohol	ND	ug/l	100	
Tertiary-Amyl Methyl Ether	ND	ug/l	20	



Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	Made a Direct Association		

Method Blank Analysis Batch Quality Control

Analytical Method:128,624.1Analytical Date:01/15/19 09:30Analyst:GT

Parameter	Result	Qualifier	Units	RL	MDL	
Volatile Organics by GC/MS - Wes	tborough La	b for sampl	e(s): 01-0	2 Batch:	WG1198145-4	

		Acceptance		
Surrogate	%Recovery	Qualifier	Criteria	
Pentafluorobenzene	93		60-140	
Fluorobenzene	101		60-140	
4-Bromofluorobenzene	85		60-140	



Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19

Method Blank Analysis Batch Quality Control

Analytical Method:128,624.1-SIMAnalytical Date:01/15/19 09:30Analyst:GT

Parameter	Result	Qualifier	Units	RL		MDL
Volatile Organics by GC/MS-SIM -	Westborough	Lab for s	ample(s):	01-02	Batch:	WG1198158-4
1,4-Dioxane	ND		ug/l	50		

		Acceptance	
Surrogate	%Recovery C	Qualifier Criteria	
Fluorobenzene	98	60-140	
4-Bromofluorobenzene	82	60-140	



Lab Control Sample Analysis

Project Name:	77 PARK-CAMBRIDGE	Batch Quality Control	Lab Number:	L1901655
Project Number:	6638-007		Report Date:	05/24/19

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	Column
Microextractables by GC - Westborough Lab	Associated sam	ple(s): 01-02	2 Batch: WG1	197855-2					
1,2-Dibromoethane	98		-		80-120	-			A



Project Number: 6638-007

Lab Number: L1901655 05/24/19

Report Date:

arameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
/olatile Organics by GC/MS - Westborough	Lab Associated sa	ample(s): 01-0	02 Batch:	WG1198145-3	3				
Methylene chloride	95		-		60-140	-		28	
1,1-Dichloroethane	90		-		50-150	-		49	
Carbon tetrachloride	100		-		70-130	-		41	
1,1,2-Trichloroethane	80		-		70-130	-		45	
Tetrachloroethene	75		-		70-130	-		39	
1,2-Dichloroethane	100		-		70-130	-		49	
1,1,1-Trichloroethane	95		-		70-130	-		36	
Benzene	95		-		65-135	-		61	
Toluene	80		-		70-130	-		41	
Ethylbenzene	80		-		60-140	-		63	
Vinyl chloride	100		-		5-195	-		66	
1,1-Dichloroethene	90		-		50-150	-		32	
cis-1,2-Dichloroethene	75		-		60-140	-		30	
Trichloroethene	95		-		65-135	-		48	
1,2-Dichlorobenzene	75		-		65-135	-		57	
1,3-Dichlorobenzene	70		-		70-130	-		43	
1,4-Dichlorobenzene	75		-		65-135	-		57	
p/m-Xylene	70		-		60-140	-		30	
o-xylene	70		-		60-140	-		30	
Acetone	124		-		40-160	-		30	
Methyl tert butyl ether	90		-		60-140	-		30	
Tert-Butyl Alcohol	110		-		60-140	-		30	
Tertiary-Amyl Methyl Ether	80		-		60-140	-		30	



Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: L1901655

Report Date: 05/24/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS - Westborough	Lab Associated	sample(s):	01-02 Batch: V	VG1198145-3					

Surrogate	LCS %Recovery Qual	LCSD %Recovery	Acceptance Qual Criteria
Pentafluorobenzene	94		60-140
Fluorobenzene	102		60-140
4-Bromofluorobenzene	85		60-140



Lab Control Sample Analysis

Project Name:	77 PARK-CAMBRIDGE	Batch Quality Control	I
Project Number:	6638-007		I

 Lab Number:
 L1901655

 Report Date:
 05/24/19

Parameter	LCS %Recoverv	Qual	LCSD %Recoverv	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Volatile Organics by GC/MS-SIM - Westborou									
1,4-Dioxane	100		-		60-140	-		20	

Surrogate	LCS	LCSD	Acceptance
	%Recovery Qual	%Recovery Qual	Criteria
Fluorobenzene	99		60-140
4-Bromofluorobenzene	75		60-140



Matrix Spike Analysis

Project Name:	77 PARK-CAM	BRIDGE			Batch Qi	uality Cor	ntrol		Lab Nun	nber:	L190165	5
Project Number:	6638-007								Report I	Date:	05/24/19	
Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	RPD Qual Limit	

Microextractables by GC	- Westborough Lab	Associate	d sample(s): 01-02	QC Ba	tch ID: WG1197855-3	QC Sample	e: L1901064-01	Client ID:	MS Sample	
1,2-Dibromoethane	ND	0.249	0.229	92	-	-	80-120	-	20	А
1,2-Dibromo-3-chloropropane	ND	0.249	0.219	88	-	-	80-120	-	20	А



SEMIVOLATILES



		Serial_No	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID:	L1901655-01	Date Collected:	01/14/19 09:45
Client ID:	INFLUENT	Date Received:	01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Water	Extraction Method	d: EPA 625.1
Analytical Method:	129,625.1	Extraction Date:	01/16/19 08:23
Analytical Date:	01/18/19 14:38		
Analyst:	ALS		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.2		1
Butyl benzyl phthalate	ND		ug/l	5.0		1
Di-n-butylphthalate	5.0		ug/l	5.0		1
Di-n-octylphthalate	ND		ug/l	5.0		1
Diethyl phthalate	ND		ug/l	5.0		1
Dimethyl phthalate	ND		ug/l	5.0		1
Phenol	ND		ug/l	5.0		1

Surrogate	% Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	60	25-87
Phenol-d6	43	16-65
Nitrobenzene-d5	98	42-122
2-Fluorobiphenyl	96	46-121
2,4,6-Tribromophenol	111	45-128
4-Terphenyl-d14	97	47-138



		Serial_No	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID:	L1901655-01	Date Collected:	01/14/19 09:45
Client ID:	INFLUENT	Date Received:	01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Water	Extraction Method	: EPA 625.1
Analytical Method:	129,625.1-SIM	Extraction Date:	01/16/19 08:09
Analytical Date:	01/18/19 18:19		
Analyst:	DV		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor		
Semivolatile Organics by GC/MS	Semivolatile Organics by GC/MS-SIM - Westborough Lab							
Acenaphthene	1.4		ug/l	0.10		1		
Fluoranthene	0.11		ug/l	0.10		1		
Naphthalene	2.7		ug/l	0.10		1		
Benzo(a)anthracene	ND		ug/l	0.10		1		
Benzo(a)pyrene	ND		ug/l	0.10		1		
Benzo(b)fluoranthene	ND		ug/l	0.10		1		
Benzo(k)fluoranthene	ND		ug/l	0.10		1		
Chrysene	ND		ug/l	0.10		1		
Acenaphthylene	ND		ug/l	0.10		1		
Anthracene	0.28		ug/l	0.10		1		
Benzo(ghi)perylene	ND		ug/l	0.10		1		
Fluorene	0.79		ug/l	0.10		1		
Phenanthrene	0.61		ug/l	0.10		1		
Dibenzo(a,h)anthracene	ND		ug/l	0.10		1		
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10		1		
Pyrene	ND		ug/l	0.10		1		
Pentachlorophenol	ND		ug/l	1.0		1		

Surrogate	% Recovery	Acceptance Qualifier Criteria	
2-Fluorophenol	43	25-87	
Phenol-d6	39	16-65	
Nitrobenzene-d5	94	42-122	
2-Fluorobiphenyl	74	46-121	
2,4,6-Tribromophenol	75	45-128	
4-Terphenyl-d14	77	47-138	



	Serial_No	0:05241911:57
77 PARK-CAMBRIDGE	Lab Number:	L1901655
6638-007	Report Date:	05/24/19
SAMPLE RESULTS		
L1901655-02	Date Collected:	01/14/19 09:15
EFFLUENT	Date Received:	01/14/19
75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified
Mator	Extraction Method	I: EPA 625.1
	Extraction Date:	01/16/19 08:23
ALS		
	6638-007 SAMPLE RESULTS L1901655-02 EFFLUENT 75 NEW ST., CAMBRIDGE Water 129,625.1 01/18/19 15:05	77 PARK-CAMBRIDGE Lab Number: 6638-007 Report Date: SAMPLE RESULTS L1901655-02 Date Collected: EFFLUENT Date Received: 75 NEW ST., CAMBRIDGE Field Prep: Water 129,625.1 01/18/19 15:05 Date Same Collected:

Result	Qualifier	Units	RL	MDL	Dilution Factor
stborough Lab					
ND		ug/l	2.2		1
ND		ug/l	5.0		1
5.9		ug/l	5.0		1
ND		ug/l	5.0		1
ND		ug/l	5.0		1
ND		ug/l	5.0		1
ND		ug/l	5.0		1
	Stborough Lab ND S.9 ND ND ND ND ND	Stborough Lab ND ND 5.9 ND ND ND ND	ND ug/l ND ug/l 5.9 ug/l ND ug/l ND ug/l ND ug/l ND ug/l	ND ug/l 2.2 ND ug/l 5.0 5.9 ug/l 5.0 ND ug/l 5.0	ND ug/l 2.2 ND ug/l 5.0 5.9 ug/l 5.0 ND ug/l 5.0

Surrogate	% Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	60	25-87
Phenol-d6	42	16-65
Nitrobenzene-d5	97	42-122
2-Fluorobiphenyl	93	46-121
2,4,6-Tribromophenol	110	45-128
4-Terphenyl-d14	95	47-138



		Serial_No	0:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	SAMPLE RESULTS		
Lab ID:	L1901655-02	Date Collected:	01/14/19 09:15
Client ID:	EFFLUENT	Date Received:	01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified
Sample Depth:			
Matrix:	Water	Extraction Method	l: EPA 625.1
Analytical Method:	129,625.1-SIM	Extraction Date:	01/16/19 08:09
Analytical Date:	01/18/19 18:45		
Analyst:	DV		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	
Semivolatile Organics by GC/MS-SIM - Westborough Lab							
Acenaphthene	0.70		ug/l	0.10		1	
Fluoranthene	ND		ug/l	0.10		1	
Naphthalene	3.9		ug/l	0.10		1	
Benzo(a)anthracene	ND		ug/l	0.10		1	
Benzo(a)pyrene	ND		ug/l	0.10		1	
Benzo(b)fluoranthene	ND		ug/l	0.10		1	
Benzo(k)fluoranthene	ND		ug/l	0.10		1	
Chrysene	ND		ug/l	0.10		1	
Acenaphthylene	ND		ug/l	0.10		1	
Anthracene	0.13		ug/l	0.10		1	
Benzo(ghi)perylene	ND		ug/l	0.10		1	
Fluorene	0.40		ug/l	0.10		1	
Phenanthrene	0.23		ug/l	0.10		1	
Dibenzo(a,h)anthracene	ND		ug/l	0.10		1	
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.10		1	
Pyrene	ND		ug/l	0.10		1	
Pentachlorophenol	ND		ug/l	1.0		1	

Surrogate	% Recovery	Acceptance Qualifier Criteria	
2-Fluorophenol	44	25-87	
Phenol-d6	40	16-65	
Nitrobenzene-d5	94	42-122	
2-Fluorobiphenyl	73	46-121	
2,4,6-Tribromophenol	75	45-128	
4-Terphenyl-d14	75	47-138	



Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	Mathed Blank Analysis		

Method Blank Analysis Batch Quality Control

Analytical Method:	129,625.1-SIM	Extraction Method:	EPA 625.1
Analytical Date:	01/18/19 17:26	Extraction Date:	01/16/19 08:09
Analyst:	DV		

arameter	Result	Qualifier Units	RL	MDL	
emivolatile Organics by G	C/MS-SIM - Westbo	rough Lab for sample(s): 01-02	Batch:	WG1198079-1
Acenaphthene	ND	ug/l	0.10		
Fluoranthene	ND	ug/l	0.10		
Naphthalene	ND	ug/l	0.10		
Benzo(a)anthracene	ND	ug/l	0.10		
Benzo(a)pyrene	ND	ug/l	0.10		
Benzo(b)fluoranthene	ND	ug/l	0.10		
Benzo(k)fluoranthene	ND	ug/l	0.10		
Chrysene	ND	ug/l	0.10		
Acenaphthylene	ND	ug/l	0.10		
Anthracene	ND	ug/l	0.10		
Benzo(ghi)perylene	ND	ug/l	0.10		
Fluorene	ND	ug/l	0.10		
Phenanthrene	ND	ug/l	0.10		
Dibenzo(a,h)anthracene	ND	ug/l	0.10		
Indeno(1,2,3-cd)pyrene	ND	ug/l	0.10		
Pyrene	ND	ug/l	0.10		
Pentachlorophenol	ND	ug/l	1.0		

%Recovery Qual	Acceptance lifier Criteria
36	25-87
33	16-65
74	42-122
62	46-121
58	45-128
74	47-138
	36 33 74 62 58



Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19
	Mathad Blank Analysia		

Method Blank Analysis Batch Quality Control

Analytical Method:	129,625.1	Extraction Method:	EPA 625.1
Analytical Date:	01/18/19 13:19	Extraction Date:	01/16/19 08:23
Analyst:	ALS		

Parameter	Result	Qualifier	Units	RL		MDL
Semivolatile Organics by GC/MS	- Westboroug	h Lab for s	ample(s):	01-02	Batch:	WG1198082-1
Bis(2-ethylhexyl)phthalate	ND		ug/l	2.2		
Butyl benzyl phthalate	ND		ug/l	5.0		
Di-n-butylphthalate	ND		ug/l	5.0		
Di-n-octylphthalate	ND		ug/l	5.0		
Diethyl phthalate	ND		ug/l	5.0		
Dimethyl phthalate	ND		ug/l	5.0		
Phenol	ND		ug/l	5.0		

Surrogate	%Recovery	Acceptance Qualifier Criteria
2-Fluorophenol	51	25-87
Phenol-d6	38	16-65
Nitrobenzene-d5	79	42-122
2-Fluorobiphenyl	77	46-121
2,4,6-Tribromophenol	81	45-128
4-Terphenyl-d14	100	47-138



Project Number: 6638-007

Lab Number: L1901655 05/24/19

Report Date:

Parameter	LCS %Recovery Qu	LCSD Ial %Recovery	% Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - V	Vestborough Lab Associa	ted sample(s): 01-02	Batch: WG11	98079-2			
Acenaphthene	88	-		60-132	-		30
Fluoranthene	99	-		43-121	-		30
Naphthalene	85	-		36-120	-		30
Benzo(a)anthracene	91	-		42-133	-		30
Benzo(a)pyrene	98	-		32-148	-		30
Benzo(b)fluoranthene	92	-		42-140	-		30
Benzo(k)fluoranthene	101	-		25-146	-		30
Chrysene	106	-		44-140	-		30
Acenaphthylene	93	-		54-126	-		30
Anthracene	104	-		43-120	-		30
Benzo(ghi)perylene	93	-		1-195	-		30
Fluorene	86	-		70-120	-		30
Phenanthrene	95	-		65-120	-		30
Dibenzo(a,h)anthracene	94	-		1-200	-		30
Indeno(1,2,3-cd)pyrene	94	-		1-151	-		30
Pyrene	99	-		70-120	-		30
Pentachlorophenol	70	-		38-152	-		30



Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007 Lab Number: L1901655

Report Date: 05/24/19

	LCS		LCSD		%Recovery			RPD	
Parameter	%Recovery	Qual	%Recovery	Qual	Limits	RPD	Qual	Limits	
Semivolatile Organics by GC/MS-SIM - W	/estborough Lab As	sociated sa	imple(s): 01-02	Batch: WG	1400070 0				

Surrogate	LCS %Recovery Qual %	LCSD Acceptance Recovery Qual Criteria
2-Fluorophenol	44	25-87
Phenol-d6	37	16-65
Nitrobenzene-d5	92	42-122
2-Fluorobiphenyl	76	46-121
2,4,6-Tribromophenol	71	45-128
4-Terphenyl-d14	76	47-138



Project Number: 6638-007

Lab Number: L1901655 Report Date: 05/24/19

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	
Semivolatile Organics by GC/MS - Westboro	ugh Lab Associa	ated sample(s)	: 01-02 Batch:	WG119	8082-3				
Bis(2-ethylhexyl)phthalate	102		-		29-137	-		30	
Butyl benzyl phthalate	124		-		1-140	-		30	
Di-n-butylphthalate	120		-		8-120	-		30	
Di-n-octylphthalate	105		-		19-132	-		30	
Diethyl phthalate	101		-		1-120	-		30	
Dimethyl phthalate	106		-		1-120	-		30	
Phenol	46		-		17-120	-		30	

Surrogate	LCS %Recovery Qual	LCSD %Recovery Qual	Acceptance Criteria
2-Fluorophenol	67		25-87
Phenol-d6	47		16-65
Nitrobenzene-d5	98		42-122
2-Fluorobiphenyl	92		46-121
2,4,6-Tribromophenol	104		45-128
4-Terphenyl-d14	93		47-138



PCBS



		Serial_No:05241911:57		
Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655	
Project Number:	6638-007	Report Date:	05/24/19	
	SAMPLE RESULTS			
Lab ID:	L1901655-01	Date Collected:	01/14/19 09:45	
Client ID:	INFLUENT	Date Received:	01/14/19	
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified	
Sample Depth:				
Matrix:	Water Extraction Method: EPA 608		: EPA 608.3	
Analytical Method:	127,608.3	Extraction Date:	01/15/19 15:58	
Analytical Date:	01/16/19 11:59	Cleanup Method:	EPA 3665A	
Analyst:	WR	Cleanup Date:	01/15/19	
,		Cleanup Method:	EPA 3660B	
		Cleanup Date:	01/16/19	
		-		

Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
stborough Lab						
ND		ug/l	0.250		1	A
ND		ug/l	0.250		1	А
ND		ug/l	0.250		1	А
ND		ug/l	0.250		1	А
ND		ug/l	0.250		1	А
ND		ug/l	0.250		1	А
ND		ug/l	0.200		1	А
	stborough Lab ND ND ND ND ND ND ND	stborough Lab ND ND ND ND ND ND ND	ND ug/l ND ug/l	ND ug/l 0.250 ND ug/l 0.250	ND ug/l 0.250 ND ug/l 0.250	ND ug/l 0.250 1 ND ug/l 0.250 1

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84		37-123	В
Decachlorobiphenyl	60		38-114	В
2,4,5,6-Tetrachloro-m-xylene	91		37-123	А
Decachlorobiphenyl	53		38-114	А



		Serial_No:05241911:57
Project Name:	77 PARK-CAMBRIDGE	Lab Number: L1901655
Project Number:	6638-007	Report Date: 05/24/19
	SAMPLE RESULTS	
Lab ID:	L1901655-02	Date Collected: 01/14/19 09:15
Client ID:	EFFLUENT	Date Received: 01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep: Not Specified
Sample Depth:		
Matrix:	Water	Extraction Method: EPA 608.3
Analytical Method:	127,608.3	Extraction Date: 01/15/19 15:58
Analytical Date:	01/16/19 12:12	Cleanup Method: EPA 3665A
Analyst:	WR	Cleanup Date: 01/15/19
,		Cleanup Method: EPA 3660B
		Cleanup Date: 01/16/19

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Polychlorinated Biphenyls by GC - We	stborough Lab						
Aroclor 1016	ND		ug/l	0.250		1	А
Aroclor 1221	ND		ug/l	0.250		1	А
Aroclor 1232	ND		ug/l	0.250		1	А
Aroclor 1242	ND		ug/l	0.250		1	А
Aroclor 1248	ND		ug/l	0.250		1	А
Aroclor 1254	ND		ug/l	0.250		1	А
Aroclor 1260	ND		ug/l	0.200		1	А

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	83		37-123	В
Decachlorobiphenyl	101		38-114	В
2,4,5,6-Tetrachloro-m-xylene	85		37-123	А
Decachlorobiphenyl	95		38-114	А



Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655
Project Number:	6638-007	Report Date:	05/24/19

Method Blank Analysis Batch Quality Control

Analytical Method:	1
Analytical Date:	C
Analyst:	V

127,608.3 01/16/19 08:31 WR Extraction Method:EPA 608.3Extraction Date:01/15/19 15:36Cleanup Method:EPA 3665ACleanup Date:01/15/19Cleanup Method:EPA 3660BCleanup Date:01/16/19

Parameter	Result	Qualifier	Units	RL		MDL	Column
Polychlorinated Biphenyls by GC	- Westborou	gh Lab for s	ample(s):	01-02	Batch:	WG119	97882-1
Aroclor 1016	ND		ug/l	0.250			А
Aroclor 1221	ND		ug/l	0.250			А
Aroclor 1232	ND		ug/l	0.250			А
Aroclor 1242	ND		ug/l	0.250			А
Aroclor 1248	ND		ug/l	0.250			А
Aroclor 1254	ND		ug/l	0.250			А
Aroclor 1260	ND		ug/l	0.200			А

		Acceptance			
Surrogate	%Recovery Qualifi	er Criteria	Column		
2,4,5,6-Tetrachloro-m-xylene	88	37-123	В		
Decachlorobiphenyl	91	38-114	В		
2,4,5,6-Tetrachloro-m-xylene	88	37-123	А		
Decachlorobiphenyl	84	38-114	А		



Lab Control Sample Analysis Batch Quality Control

77 PARK-CAMBRIDGE **Project Name:**

Project Number: 6638-007

Lab Number: L1901655 Report Date: 05/24/19

	LCS	LCS LCSD			%Recovery			RPD		
Parameter	%Recovery	Qual	%Recovery	%Recovery Qual Limi		Limits RPD		Limits	Column	
Polychlorinated Biphenyls by GC - We	stborough Lab Associa	ted sample(s)	: 01-02 Batch:	WG11978	882-2					
Aroclor 1016	87		-		50-140	-		36	А	
Aroclor 1260	81		-		8-140	-		38	А	

	LCS		LCSD		Acceptance	
Surrogate	%Recovery	Qual	%Recovery	Qual	Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	84				37-123	В
Decachlorobiphenyl	76				38-114	В
2,4,5,6-Tetrachloro-m-xylene	86				37-123	A
Decachlorobiphenyl	70				38-114	А



METALS



Serial_No:05241911:57

Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655						
Project Number:	6638-007	Report Date:	05/24/19						
SAMPLE RESULTS									
Lab ID:	L1901655-01	Date Collected:	01/14/19 09:45						
Client ID:	INFLUENT	Date Received:	01/14/19						
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified						

Sample Depth:

Matrix:

Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Man	sfield Lab										
Antimony, Total	ND		mg/l	0.00400		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Arsenic, Total	0.00825		mg/l	0.00100		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Chromium, Total	0.00150		mg/l	0.00100		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Copper, Total	0.00865		mg/l	0.00100		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Iron, Total	40.9		mg/l	0.050		1	01/15/19 12:14	01/15/19 22:33	EPA 3005A	19,200.7	AB
Lead, Total	0.00420		mg/l	0.00100		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020		1	01/15/19 16:09	01/15/19 19:21	EPA 245.1	3,245.1	MG
Nickel, Total	0.00844		mg/l	0.00200		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
Zinc, Total	0.01164		mg/l	0.01000		1	01/15/19 12:14	01/16/19 14:03	EPA 3005A	3,200.8	AM
General Chemistry	- Mansfiel	ld Lab									
Chromium, Trivalent	ND		mg/l	0.010		1		01/16/19 14:03	NA	107,-	



Serial_No:05241911:57

Project Name:	77 PARK-CAMBRIDGE	Lab Number:	L1901655							
Project Number:	6638-007	Report Date:	05/24/19							
SAMPLE RESULTS										
Lab ID:	L1901655-02	Date Collected:	01/14/19 09:15							
Client ID:	EFFLUENT	Date Received:	01/14/19							
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified							

Sample Depth:

Matrix:

Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mans	field Lab										
Antimony, Total	ND		mg/l	0.00400		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
Arsenic, Total	ND		mg/l	0.00100		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
Cadmium, Total	ND		mg/l	0.00020		1	01/15/19 12:14	101/16/19 14:15	EPA 3005A	3,200.8	AM
Chromium, Total	ND		mg/l	0.00100		1	01/15/19 12:14	1 01/16/19 14:15	EPA 3005A	3,200.8	AM
Copper, Total	0.00788		mg/l	0.00100		1	01/15/19 12:14	101/16/19 14:15	EPA 3005A	3,200.8	AM
Iron, Total	0.181		mg/l	0.050		1	01/15/19 12:14	1 01/15/19 22:59	EPA 3005A	19,200.7	AB
Lead, Total	ND		mg/l	0.00100		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
Mercury, Total	ND		mg/l	0.00020		1	01/15/19 16:09	01/15/19 19:22	EPA 245.1	3,245.1	MG
Nickel, Total	0.00550		mg/l	0.00200		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
Selenium, Total	ND		mg/l	0.00500		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
Silver, Total	ND		mg/l	0.00040		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
Zinc, Total	ND		mg/l	0.01000		1	01/15/19 12:14	4 01/16/19 14:15	EPA 3005A	3,200.8	AM
General Chemistry	- Mansfiel	d Lab									
Chromium, Trivalent	ND		mg/l	0.010		1		01/16/19 14:15	NA	107,-	



Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1901655

 Report Date:
 05/24/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared		Analytical Method	
Total Metals - Mansfield	Lab for sample(s):	01-02 B	atch: WO	G11977	88-1				
Iron, Total	ND	mg/l	0.050		1	01/15/19 12:14	01/15/19 22:23	19,200.7	AB

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfiel	d Lab for sample(s):	01-02	Batch: WO	G11977	91-1				
Antimony, Total	ND	mg/l	0.00400		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Arsenic, Total	ND	mg/l	0.00100		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Cadmium, Total	ND	mg/l	0.00020		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Chromium, Total	ND	mg/l	0.00100		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Copper, Total	ND	mg/l	0.00100		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Lead, Total	ND	mg/l	0.00100		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Nickel, Total	ND	mg/l	0.00200		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Selenium, Total	ND	mg/l	0.00500		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Silver, Total	ND	mg/l	0.00040		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM
Zinc, Total	ND	mg/l	0.01000		1	01/15/19 12:14	01/16/19 13:47	3,200.8	AM

Prep Informatio	n
-----------------	---

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytica Method	
Total Metals - Mansfi	eld Lab for sample(s):	01-02 E	Batch: Wo	G11978	94-1				
Mercury, Total	ND	mg/l	0.00020		1	01/15/19 16:09	01/15/19 19:06	3,245.1	MG

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: L1901655 Report Date: 05/24/19

Parameter	LCS %Recovery	LCSD Qual %Recover	У Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample	(s): 01-02 Bat	ch: WG1197788-2					
Iron, Total	104	-		85-115	-		
Total Metals - Mansfield Lab Associated sample	(s): 01-02 Bat	ch: WG1197791-2					
Antimony, Total	90	-		85-115	-		
Arsenic, Total	101	-		85-115	-		
Cadmium, Total	110	-		85-115	-		
Chromium, Total	96	-		85-115	-		
Copper, Total	95	-		85-115	-		
Lead, Total	111	-		85-115	-		
Nickel, Total	99	-		85-115	-		
Selenium, Total	102	-		85-115	-		
Silver, Total	102	-		85-115	-		
Zinc, Total	104	-		85-115	-		
Total Metals - Mansfield Lab Associated sample	(s): 01-02 Bat	ch: WG1197894-2					
Mercury, Total	115	-		85-115	-		



Matrix Spike Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007 Lab Number: L1901655 **Report Date:** 05/24/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery Qเ	Recovery al Limits	RPD Qual	RPD Limits
Total Metals - Mansfield La	ab Associated sam	ple(s): 01-02	QC Bat	ch ID: WG119	7788-3	QC Sam	ple: L1901655-01	Client ID: IN	FLUENT	
Iron, Total	40.9	1	42.1	120		-	-	75-125	-	20
Total Metals - Mansfield La	ab Associated sam	ple(s): 01-02	QC Bat	ch ID: WG119	7788-7	QC Sam	ple: L1901655-02	Client ID: EF	FLUENT	
Iron, Total	0.181	1	1.19	101		-	-	75-125	-	20
Total Metals - Mansfield La	ab Associated sam	ple(s): 01-02	QC Bat	ch ID: WG119	7791-3	QC Sam	ple: L1901655-01	Client ID: IN	FLUENT	
Antimony, Total	ND	0.5	0.5529	110		-	-	70-130	-	20
Arsenic, Total	0.00825	0.12	0.1311	102		-	-	70-130	-	20
Cadmium, Total	ND	0.051	0.05441	107		-	-	70-130	-	20
Chromium, Total	0.00150	0.2	0.1950	97		-	-	70-130	-	20
Copper, Total	0.00865	0.25	0.2411	93		-	-	70-130	-	20
Lead, Total	0.00420	0.51	0.5604	109		-	-	70-130	-	20
Nickel, Total	0.00844	0.5	0.4992	98		-	-	70-130	-	20
Selenium, Total	ND	0.12	0.1209	101		-	-	70-130	-	20
Silver, Total	ND	0.05	0.05073	101		-	-	70-130	-	20
Zinc, Total	0.01164	0.5	0.5417	106		-	-	70-130	-	20



Matrix Spike Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: L1901655 **Report Date:** 05/24/19

MS MS MSD RPD Native MS MSD Recovery Sample Added Found %Recovery Found Limits %Recovery Limits RPD Parameter Client ID: EFFLUENT Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197791-5 QC Sample: L1901655-02 Antimony, Total 0.5436 ND 0.5 109 70-130 20 --Arsenic. Total ND 0.12 0.1284 107 70-130 20 ---Cadmium, Total ND 0.051 0.05677 111 70-130 20 ---Chromium, Total ND 0.2 0.2052 103 70-130 20 -_ -Copper, Total 0.00788 0.25 0.2653 103 -70-130 20 --Lead, Total ND 0.51 0.5790 114 70-130 20 ---Nickel, Total 0.00550 0.5 0.5262 104 70-130 20 ---Selenium, Total ND 0.12 0.1270 106 70-130 20 ---Silver, Total ND 0.05 0.05238 105 70-130 20 -_ -Zinc, Total ND 0.5 0.5314 106 70-130 20 --_ Total Metals - Mansfield Lab Associated sample(s): 01-02 QC Batch ID: WG1197894-3 QC Sample: L1901622-01 Client ID: MS Sample Mercury, Total 0.00022 0.005 0.0047 90 70-130 20 --



Lab Duplicate Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE Project Number: 6638-007

Lab Number: L1901655 Report Date:

05/24/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Fotal Metals - Mansfield Lab Associated sample(s): 01-0	QC Batch ID:	WG1197788-4 QC Sample:	L1901655-01	Client ID:	INFLUENT	
Iron, Total	40.9	42.9	mg/l	5		20
Total Metals - Mansfield Lab Associated sample(s): 01-0	QC Batch ID:	WG1197788-8 QC Sample:	L1901655-02	Client ID:	EFFLUENT	•
Iron, Total	0.181	0.176	mg/l	3		20
Total Metals - Mansfield Lab Associated sample(s): 01-0	QC Batch ID:	WG1197791-4 QC Sample:	L1901655-01	Client ID:	INFLUENT	
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00825	0.00869	mg/l	5		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00150	0.00162	mg/l	8		20
Copper, Total	0.00865	0.00695	mg/l	22	Q	20
Lead, Total	0.00420	0.00457	mg/l	8		20
Nickel, Total	0.00844	0.00826	mg/l	2		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.01164	0.01198	mg/l	3		20



Lab Duplicate Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: Report Date:

te: 05/24/19

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
otal Metals - Mansfield Lab Associated sample(s): 01-02	QC Batch ID:	WG1197791-6 QC Sample:	L1901655-02	Client ID:	EFFLUENT
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	ND	ND	mg/l	NC	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	ND	ND	mg/l	NC	20
Copper, Total	0.00788	0.00627	mg/l	23	Q 20
Lead, Total	ND	ND	mg/l	NC	20
Nickel, Total	0.00550	0.00544	mg/l	1	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
otal Metals - Mansfield Lab Associated sample(s): 01-02	QC Batch ID:	WG1197894-4 QC Sample:	L1901622-01	Client ID:	DUP Sample
Mercury, Total	0.00022	ND	mg/l	NC	20



INORGANICS & MISCELLANEOUS



Serial_No:05241911:57

Project Name:	77 PARK-CAMBRIDGE
Project Number:	6638-007

Lab Number: L1901655 Report Date: 05/24/19

SAMPLE RESULTS

Lab ID:	L1901655-01	Date Collected:	01/14/19 09:45
Client ID:	INFLUENT	Date Received:	01/14/19
Sample Location:	75 NEW ST., CAMBRIDGE	Field Prep:	Not Specified

Sample Depth: Matrix:

Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lat)								
Solids, Total Suspended	57.		mg/l	5.0	NA	1	-	01/15/19 12:22	121,2540D	DR
Cyanide, Total	ND		mg/l	0.005		1	01/15/19 10:55	01/15/19 15:17	121,4500CN-CE	LH
Chlorine, Total Residual	ND		mg/l	0.02		1	-	01/14/19 18:46	121,4500CL-D	AS
Nitrogen, Ammonia	22.3		mg/l	0.750		10	01/15/19 14:30	01/15/19 23:45	121,4500NH3-BH	I AT
TPH, SGT-HEM	ND		mg/l	4.00		1	01/16/19 16:30	01/16/19 22:00	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030		1	01/15/19 07:40	01/16/19 05:37	4,420.1	GD
Chromium, Hexavalent	ND		mg/l	0.010		1	01/14/19 19:30	01/14/19 20:13	1,7196A	AS
Anions by Ion Chromato	graphy - West	borough	Lab							
Chloride	332.		mg/l	12.5		25	-	01/14/19 21:28	44,300.0	JR



Serial_No:05241911:57

Project Name:	77 PARK-CAMBRIDGE
Project Number:	6638-007

Lab Number: L1901655 Report Date: 05/24/19

SAMPLE RESULTS

Lab ID:	L1901655-02	Date Collected:	01/14/19 09:15
Client ID:	EFFLUENT 75 NEW ST., CAMBRIDGE	Date Received: Field Prep:	01/14/19 Not Specified
Sample Location.	75 NEW ST., CAMBRIDGE	Field Fiep.	Not opechica

Sample Depth: Matrix:

Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - We	stborough Lab)								
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	01/15/19 12:22	121,2540D	DR
Cyanide, Total	ND		mg/l	0.005		1	01/15/19 10:55	01/15/19 15:00	121,4500CN-CE	LH
Chlorine, Total Residual	ND		mg/l	0.02		1	-	01/14/19 18:46	121,4500CL-D	AS
Nitrogen, Ammonia	20.5		mg/l	0.750		10	01/15/19 14:30	01/15/19 23:46	121,4500NH3-BH	AT
TPH, SGT-HEM	ND		mg/l	4.00		1	01/16/19 16:30	01/16/19 22:00	74,1664A	ML
Phenolics, Total	ND		mg/l	0.030		1	01/15/19 07:40	01/16/19 05:38	4,420.1	GD
Chromium, Hexavalent	ND		mg/l	0.010		1	01/14/19 19:30	01/14/19 20:14	1,7196A	AS
Anions by Ion Chromato	graphy - West	borough	Lab							
Chloride	331.		mg/l	12.5		25	-	01/14/19 22:04	44,300.0	JR



Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1901655

 Report Date:
 05/24/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qual	ifier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - V	Vestborough Lab for	r sample(s): (01-02 B	atch: Wo	G1197574-1				
Chlorine, Total Residual	ND	mg/l	0.02		1	-	01/14/19 18:46	121,4500CL-D	AS
General Chemistry - V	Vestborough Lab for	r sample(s): (01-02 B	atch: Wo	G1197585-1				
Chromium, Hexavalent	ND	mg/l	0.010		1	01/14/19 19:30	01/14/19 20:09	1,7196A	AS
Anions by Ion Chroma	atography - Westborg	ough Lab for	sample(s	s): 01-02	Batch: W	G1197607-1			
Chloride	ND	mg/l	0.500		1	-	01/14/19 21:04	44,300.0	JR
General Chemistry - V	Vestborough Lab for	r sample(s): (01-02 B	atch: W	G1197706-1				
Phenolics, Total	ND	mg/l	0.030		1	01/15/18 07:40	01/16/19 06:42	4,420.1	GD
General Chemistry - V	Vestborough Lab for	r sample(s): (01-02 B	atch: W	G1197730-1				
Solids, Total Suspended	ND	mg/l	5.0	NA	1	-	01/15/19 12:22	121,2540D	DR
General Chemistry - V	Vestborough Lab for	r sample(s): (01-02 B	atch: W	G1197756-1				
Cyanide, Total	ND	mg/l	0.005		1	01/15/19 10:55	01/15/19 14:45	121,4500CN-C	E LH
General Chemistry - V	Vestborough Lab for	r sample(s): (01-02 B	atch: W	G1197758-1				
Nitrogen, Ammonia	ND	mg/l	0.075		1	01/15/19 14:30	01/15/19 23:20	121,4500NH3-B	H AT
General Chemistry - W	Vestborough Lab for	r sample(s): (01-02 B	atch: W	G1198272-1				
TPH, SGT-HEM	ND	mg/l	4.00		1	01/16/19 16:30	01/16/19 22:00	74,1664A	ML



Lab Control Sample Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: L1901655 Report Date: 05/24/19

Parameter	LCS %Recovery (Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Ass	ociated sample(s): (01-02	Batch: WG1197	574-2				
Chlorine, Total Residual	96		-		90-110	-		
General Chemistry - Westborough Lab Ass	ociated sample(s): (01-02	Batch: WG1197	585-2				
Chromium, Hexavalent	100		-		85-115	-		20
Anions by Ion Chromatography - Westborou	igh Lab Associated	l sampl	le(s): 01-02 Bate	ch: WG119	97607-2			
Chloride	99		-		90-110	-		
General Chemistry - Westborough Lab Ass	ociated sample(s): (01-02	Batch: WG1197	706-2				
Phenolics, Total	93		-		70-130	-		
General Chemistry - Westborough Lab Ass	ociated sample(s): (01-02	Batch: WG1197	756-2				
Cyanide, Total	92		-		90-110	-		
General Chemistry - Westborough Lab Ass	ociated sample(s): (01-02	Batch: WG1197	758-2				
Nitrogen, Ammonia	90				80-120	-		20
General Chemistry - Westborough Lab Ass	ociated sample(s): (01-02	Batch: WG11982	272-2				
ТРН	98				64-132	-		34



Matrix Spike Analysis Batch Quality Control

Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007 Lab Number: L1901655 **Report Date:** 05/24/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSE Qual Four		Recov y Qual Limi		RPD Qual Limits
General Chemistry - Westborou	ugh Lab Assoc	ciated samp	ole(s): 01-02	QC Batch IE	D: WG119757	4-4 QC Sample	e: L1901655-02	Client ID:	EFFLUENT
Chlorine, Total Residual	ND	0.25	0.24	96	-	. <u>-</u>	80-12	0 -	20
General Chemistry - Westborou	ugh Lab Assoc	ciated samp	ole(s): 01-02	QC Batch IE	D: WG119758	5-4 QC Sample	e: L1901655-02	Client ID:	EFFLUENT
Chromium, Hexavalent	ND	0.1	0.101	101			85-11	5 -	20
Anions by Ion Chromatography EFFLUENT	· - Westboroug	gh Lab Asso	ciated samp	ble(s): 01-02	QC Batch ID:	WG1197607-3	QC Sample: L1	1901655-02	2 Client ID:
Chloride	331	100	430	99	-	. <u>-</u>	90-11	0 -	18
General Chemistry - Westborou	ugh Lab Assoc	ciated samp	ole(s): 01-02	QC Batch IE	D: WG119770	6-4 QC Sample	e: L1901655-02	Client ID:	EFFLUENT
Phenolics, Total	ND	0.4	0.40	101	-	. <u>-</u>	70-13	0 -	20
General Chemistry - Westborou	ugh Lab Assoc	ciated samp	ole(s): 01-02	QC Batch IE	D: WG119775	6-4 QC Sample	e: L1901655-02	Client ID:	EFFLUENT
Cyanide, Total	ND	0.2	0.179	90		-	90-11	0 -	30
General Chemistry - Westborou	ugh Lab Assoc	ciated samp	ole(s): 01-02	QC Batch ID	D: WG119775	8-4 QC Sample	e: L1901460-01	Client ID:	MS Sample
Nitrogen, Ammonia	0.970	4	7.35	160	Q ·	. <u>-</u>	80-12	0 -	20
General Chemistry - Westborou	ugh Lab Assoc	ciated samp	ole(s): 01-02	QC Batch ID	D: WG119827	2-4 QC Sample	e: L1901836-01	Client ID:	MS Sample
ТРН	ND	20	18.7	94			64-13	2 -	34



Lab Duplicate Analysis Batch Quality Control

Project Name:77 PARK-CAMBRIDGEProject Number:6638-007

 Lab Number:
 L1901655

 Report Date:
 05/24/19

Parameter	Native Samp	ole D	uplicate Sample	e Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1197574-3	QC Sample:	L1901655-01	Client ID:	INFLUENT
Chlorine, Total Residual	ND		ND	mg/l	NC		20
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1197585-3	QC Sample:	L1901655-01	Client ID:	INFLUENT
Chromium, Hexavalent	ND		ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough La EFFLUENT	b Associated sample((s): 01-02 C	C Batch ID: WG	1197607-4	QC Sample: L	1901655-0	2 Client ID:
Chloride	331		340	mg/l	3		18
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1197706-3	QC Sample:	L1901655-02	Client ID:	EFFLUENT
Phenolics, Total	ND		ND	mg/l	NC		20
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1197730-2	QC Sample:	L1901676-02	Client ID:	DUP Sample
Solids, Total Suspended	58		62	mg/l	7		29
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1197756-3	QC Sample:	L1901655-01	Client ID:	INFLUENT
Cyanide, Total	ND		ND	mg/l	NC		30
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1197758-3	QC Sample:	L1901460-01	Client ID:	DUP Sample
Nitrogen, Ammonia	0.970		1.03	mg/l	6		20
General Chemistry - Westborough Lab Associate	ed sample(s): 01-02	QC Batch ID:	WG1198272-3	QC Sample:	L1901836-01	Client ID:	DUP Sample
ТРН	ND		ND	mg/l	NC		34



Project Name: 77 PARK-CAMBRIDGE Project Number: 6638-007

Serial_No:05241911:57 Lab Number: L1901655 *Report Date:* 05/24/19

Sample Receipt and Container Information

YES

Were project specific reporting limits specified?

Cooler Information

Cooler	Custody Seal
A	Absent
В	Absent

Container Information

Container Information			Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1901655-01A	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-01B	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-01C	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-01D	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-01E	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-01F	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-01G	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		504(14)
L1901655-01H	Vial Na2S2O3 preserved	А	NA		3.2	Y	Absent		504(14)
L1901655-01J	Vial HCl preserved	А	NA		3.2	Y	Absent		SUB-ETHANOL(14)
L1901655-01K	Vial HCl preserved	А	NA		3.2	Y	Absent		SUB-ETHANOL(14)
L1901655-01L	Vial HCl preserved	А	NA		3.2	Y	Absent		SUB-ETHANOL(14)
L1901655-01M	Plastic 250ml HNO3 preserved	A	<2	<2	3.2	Y	Absent		CD-2008T(180),NI-2008T(180),ZN- 2008T(180),CU-2008T(180),FE-UI(180),AG- 2008T(180),AS-2008T(180),HG-U(28),SE- 2008T(180),CR-2008T(180),PB-2008T(180),SB- 2008T(180)
L1901655-01N	Plastic 250ml NaOH preserved	А	>12	>12	3.2	Y	Absent		TCN-4500(14)
L1901655-01P	Plastic 500ml H2SO4 preserved	А	<2	<2	3.2	Y	Absent		NH3-4500(28)
L1901655-01Q	Plastic 950ml unpreserved	А	7	7	3.2	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1)
L1901655-01R	Plastic 950ml unpreserved	А	7	7	3.2	Y	Absent		TSS-2540(7)
L1901655-01S	Amber 950ml H2SO4 preserved	А	<2	<2	3.2	Y	Absent		TPHENOL-420(28)
L1901655-01T	Amber 1000ml HCI preserved	А	NA		3.2	Y	Absent		TPH-1664(28)
L1901655-01U	Amber 1000ml HCl preserved	А	NA		3.2	Y	Absent		TPH-1664(28)
L1901655-01V	Amber 1000ml Na2S2O3	А	7	7	3.2	Y	Absent		PCB-608.3(7)





Project Name: 77 PARK-CAMBRIDGE Project Number: 6638-007

Container Info	ormation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1901655-01W	Amber 1000ml Na2S2O3	A	7	7	3.2	Y	Absent		PCB-608.3(7)
L1901655-01X	Amber 1000ml Na2S2O3	А	7	7	3.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-01X1	Amber 1000ml Na2S2O3	А	7	7	3.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-01Y	Amber 1000ml Na2S2O3	А	7	7	3.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-01Z	Amber 1000ml Na2S2O3	А	7	7	3.2	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-02A	Vial Na2S2O3 preserved	В	NA		3.6	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-02B	Vial Na2S2O3 preserved	В	NA		3.6	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-02C	Vial Na2S2O3 preserved	В	NA		3.6	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-02D	Vial Na2S2O3 preserved	В	NA		3.6	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-02E	Vial Na2S2O3 preserved	В	NA		3.6	Y	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-02F	Vial Na2S2O3 preserved	В	NA		3.6	Υ	Absent		624.1-RGP(7),624.1-SIM-RGP(7)
L1901655-02G	Vial Na2S2O3 preserved	В	NA		3.6	Υ	Absent		504(14)
L1901655-02H	Vial Na2S2O3 preserved	В	NA		3.6	Υ	Absent		504(14)
L1901655-02J	Vial HCl preserved	В	NA		3.6	Y	Absent		SUB-ETHANOL(14)
L1901655-02K	Vial HCl preserved	В	NA		3.6	Y	Absent		SUB-ETHANOL(14)
L1901655-02L	Vial HCl preserved	В	NA		3.6	Y	Absent		SUB-ETHANOL(14)
L1901655-02M	Plastic 250ml HNO3 preserved	В	<2	<2	3.6	Y	Absent		CD-2008T(180),NI-2008T(180),ZN- 2008T(180),CU-2008T(180),FE-UI(180),AG- 2008T(180),AS-2008T(180),HG-U(28),SE- 2008T(180),CR-2008T(180),PB-2008T(180),SB- 2008T(180)
L1901655-02N	Plastic 250ml NaOH preserved	В	>12	>12	3.6	Y	Absent		TCN-4500(14)
L1901655-02P	Plastic 500ml H2SO4 preserved	В	<2	<2	3.6	Y	Absent		NH3-4500(28)
L1901655-02Q	Plastic 950ml unpreserved	В	7	7	3.6	Y	Absent		CL-300(28),HEXCR-7196(1),TRC-4500(1)
L1901655-02R	Plastic 950ml unpreserved	В	7	7	3.6	Y	Absent		TSS-2540(7)
L1901655-02S	Amber 950ml H2SO4 preserved	В	<2	<2	3.6	Y	Absent		TPHENOL-420(28)
L1901655-02T	Amber 1000ml HCl preserved	В	NA		3.6	Y	Absent		TPH-1664(28)
L1901655-02U	Amber 1000ml HCI preserved	В	NA		3.6	Y	Absent		TPH-1664(28)
L1901655-02V	Amber 1000ml Na2S2O3	В	7	7	3.6	Y	Absent		PCB-608.3(7)
L1901655-02W	Amber 1000ml Na2S2O3	В	7	7	3.6	Y	Absent		PCB-608.3(7)



Project Name: 77 PARK-CAMBRIDGE
Project Number: 6638-007

Serial_No:05241911:57 *Lab Number:* L1901655 *Report Date:* 05/24/19

Container Information		Initial	Final	Temp			Frozen		
Container ID	Container Type	Cooler	рН	рН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1901655-02X	Amber 1000ml Na2S2O3	В	7	7	3.6	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-02X1	Amber 1000ml Na2S2O3	В	7	7	3.6	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-02Y	Amber 1000ml Na2S2O3	В	7	7	3.6	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
L1901655-02Z	Amber 1000ml Na2S2O3	В	7	7	3.6	Y	Absent		625.1-RGP(7),625.1-SIM-RGP(7)
	Container ID L1901655-02X L1901655-02X1 L1901655-02Y	Container ID Container Type L1901655-02X Amber 1000ml Na2S2O3 L1901655-02X1 Amber 1000ml Na2S2O3 L1901655-02Y Amber 1000ml Na2S2O3	Container ID Container Type Cooler L1901655-02X Amber 1000ml Na2S2O3 B L1901655-02X1 Amber 1000ml Na2S2O3 B L1901655-02Y Amber 1000ml Na2S2O3 B	Container IDContainer TypeCoolerPHL1901655-02XAmber 1000ml Na2S2O3B7L1901655-02X1Amber 1000ml Na2S2O3B7L1901655-02YAmber 1000ml Na2S2O3B7	Container ID Container Type Cooler PH PH L1901655-02X Amber 1000ml Na2S2O3 B 7 7 L1901655-02X1 Amber 1000ml Na2S2O3 B 7 7 L1901655-02Y1 Amber 1000ml Na2S2O3 B 7 7 L1901655-02Y Amber 1000ml Na2S2O3 B 7 7	Container ID Container Type Cooler PH PH deg C L1901655-02X Amber 1000ml Na2S2O3 B 7 7 3.6 L1901655-02X1 Amber 1000ml Na2S2O3 B 7 7 3.6 L1901655-02Y Amber 1000ml Na2S2O3 B 7 7 3.6	Container IDContainer TypeCoolerPHPHPHPerpL1901655-02XAmber 1000ml Na2S2O3B773.6YL1901655-02X1Amber 1000ml Na2S2O3B773.6YL1901655-02YAmber 1000ml Na2S2O3B773.6Y	Container IDContainer TypeCoolerPH	Container IDContainer TypeCoolerPHPHPHPHPersSealDate/TimeL1901655-02X1Amber 1000ml Na2S2O3B773.6YAbsentL1901655-02Y1Amber 1000ml Na2S2O3B773.6YAbsentL1901655-02YAmber 1000ml Na2S2O3B773.6YAbsent



Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number: L1901655

Report Date: 05/24/19

GLOSSARY

Acronyms

Acronyms	
DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.
Footnotes	

Footnotes

Report Format: Data Usability Report



Project Name: 77 PARK-CAMBRIDGE

Project Number: 6638-007

Lab Number:	L1901655
Report Date:	05/24/19

1

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after

adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH. Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- B The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects (flag only applies to associated field samples that have detectable concentrations of the analyte which was detected above the reporting limit in the associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- **D** Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- J -Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- **S** Analytical results are from modified screening analysis.



 Lab Number:
 L1901655

 Report Date:
 05/24/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 74 Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.
- 107 Alpha Analytical In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.
- 127 Method 608.3: Organochlorine Pesticides and PCBs by GC/HSD, EPA 821-R-16-009, December 2016.
- 128 Method 624.1: Purgeables by GC/MS, EPA 821-R-16-008, December 2016.
- 129 Method 625.1: Base/Neutrals and Acids by GC/MS, EPA 821-R-16-007, December 2016.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene **EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene. **EPA 8270D:** <u>NPW</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil. Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. EPA 245.1 Hg. SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:05241911:57

	CHAIN	OF CU	STO	DY P	AGE	_OF	Date	Rec'd i	n Lab:	1	114	- 11	9		AL	РНА	A Jol	b #:	119	0165	5
6 Walkup Drive	320 Forbes Blvd		t Informati				the second second		ormat	ion - D	ata D	eliver	able					ormat			
Westboro, MA Tel: 508-898-9		Project	Name: 77	Park.	- Can	ronda	YA1			EM4				_	D Si	ame	as Cl	lient ir	nfo PO #	#:	
Client Information	on	Project	-ocation: 7 : #: 6638	SNew	Sto	Cambre	Reg	latory	Req	uireme	nts	& F	Proje	ct In	form	natio	on Re	equir	rements		
Client: (Geoly	sight Inc.	Project	* 6638	-00-	7		Ves	D No	MA M Matrix	CP Ana Spike F	ytical I	Methor d on t	ds his Sl	DG?					CT RCP An Inorganics	alytical Metho	ds
Address: 1 M	sight Inc.	LeZCI Project	Manager: 12	obert	Doub	26 10	Q Yes	No	GW1	Standar					200 C C C C C C C C C C C C C C C C C C				and the second sec	0	
Littleton	MA01460	ALPHA	Quote #:	·	rag.	.0.05				S RGP Progra	n				_		Criteri	ia			
Additional F	roject Information: V. 24 hr HC	Date	Due:	RUSH(1007)	ΑT		D 8260 - ANALYSIS	D ABN D 524.2	METALS: DMCP 13 DIAS	EPH: DRanges P. DRCRAS DRCRAB	VPH: DRanges & T. Ranges Oct	DPEST Ranges Only	1	ALA GUILICC "BURNIE	Heilagenan	Nr. Ochon onered von	Hallons VCCS	5	Parameter SUCCS	SAMPLE INFO Filtration Field Lab to do Preservation	TOTAL # BOTTL
ALPHA Lab ID (Lab Use Only)	Sample I	ס	Colle	ction Time	Sample Matrix	Sampler	, voc.	SVOC:	METALS	EPH: DI	ID Han	BJ T			H-1	9	A T	FALLS	Same	Lab to do	E
01655-01	Influent		1/14/19		GN	LCH	1	Í	1		-	X		×	X	×	×	X	/ outrip		25
	Effluent		1/14/19	100	1212000000000	1						¥	×				X	x			25
Container Type P= Plastic A= Amber glass V= Vial G= Glass B= Bacteria cup C= Cube O= Other E= Encore D= BOD Bottie Page 62 of 77	Preservative A = None B = HCl C = HNO ₃ D = H ₂ SO ₃ E = NaOH F = MeOH F = MeOH F = NHSO ₄ H = Na ₂ S ₃ O ₃ I = Ascorbic Acid J = NH ₄ Cl K = Zn Acclate O = Other	AReling	uished By?	F	Pr	ainer Type eservative e/Time (19 12:32	DA DA	Da	Receiv	ed By:	AL		K(-)	Date/	Time	SC IN	Alp See	oha's e reve		itted are subje J Conditions. 12-Mar-2012)	ect to

	5 A L		Subcontra at America (Na 0 Foster Creis shville, TN 372	ct Chain of Custo shville) ghton Drive 204		Alpha Job Number L1901655
Cli	ent Information	Star Selation	Project Inf	formation	Regulatory Req	uirements/Report Limits
Client: Alpha Ar Address: Eight Wa Westbord	nalytical Labs ulkup Drive ough, MA 01581-1019	Project Location Project Manage Turnaro		rd erables Information	State/Federal Program: Regulatory Criteria:	
Phone: 508.439. Email: dsanford	5157 @alphalab.com	Due Date: Deliverables:				
		Project Specifi	ic Requirem	ents and/or Report R		
	Reference following Alpha Job			L1901655	Report to include Method Blar	nk, LCS/LCSD:
Additional Comm	ents: Send all results/reports	to subreports@alphala	ab.com			
UN CONTRACTOR						
Lab ID	Client ID	Collection Date/Time	Sample Matrix	An	alysis	Batch QC
	INFLUENT	01-14-19 09:45 01-14-19 09:15	WATER	Ethanol by EPA 1671 Revis Ethanol by EPA 1671 Revis	ion A ion A	
Telecontraction and a	Relinquis	hed By:		Dațe/Time:	Received By:	Date/Time:
	Chri	Ellear		1/15/19 14	100	
and the same	37 Sam-					
Form No: AL_su	bcoc					



THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Nashville 2960 Foster Creighton Drive Nashville, TN 37204 Tel: (615)726-0177

TestAmerica Job ID: 490-166738-1 Client Project/Site: L1901655

For: Alpha Analytical Inc 145 Flanders Road Westborough, Massachusetts 01581-1019

Attn: Reports Dept.

Quinita Reynalds

Authorized for release by: 1/28/2019 12:11:07 PM Quinita Reynolds, Manager of Project Management Assistants (615)301-5755 quinita.reynolds@testamericainc.com

Designee for

Ken Hayes, Project Manager II (615)301-5035 ken.hayes@testamericainc.com

The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

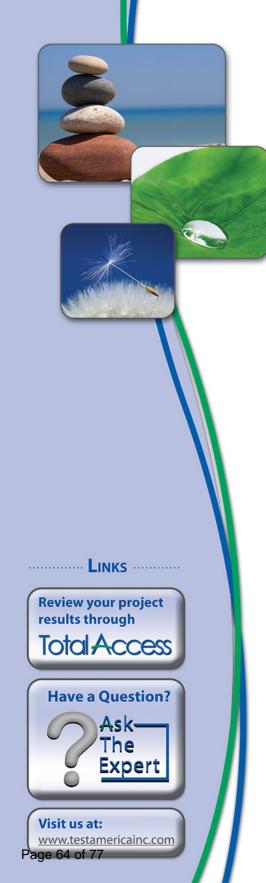


Table of Contents

Cover Page	1
Table of Contents	2
Sample Summary	3
Case Narrative	4
Definitions	5
Client Sample Results	6
QC Sample Results	8
QC Association	9
Chronicle	10
Method Summary	11
Certification Summary	12
Chain of Custody	13

Sample Summary

Matrix

Water

Water

Client: Alpha Analytical Inc Project/Site: L1901655

Client Sample ID

INFLUENT

EFFLUENT

Lab Sample ID

490-166738-1

490-166738-2

TestAmerica Job ID: 490-166738-1

Collected

01/14/19 09:45 01/16/19 09:00

01/14/19 09:15 01/16/19 09:00

Received

3
5
8
9

TestAmerica Job ID: 490-166738-1

Case Narrative

Job ID: 490-166738-1

Laboratory: TestAmerica Nashville

Narrative

Job Narrative 490-166738-1

Comments

No additional comments.

Receipt

The samples were received on 1/16/2019 9:00 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.6° C.

GC Semi VOA

Method 1671A: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate (MS/MSD) associated with analytical batch 490-570122.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: Alpha Analytical Inc Project/Site: L1901655

TestAmerica Job ID: 490-166738-1

Glossary

Clossary		`
Abbreviation	These commonly used abbreviations may or may not be present in this report.	
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis	
%R	Percent Recovery	5
CFL	Contains Free Liquid	•
CNF	Contains No Free Liquid	
DER	Duplicate Error Ratio (normalized absolute difference)	
Dil Fac	Dilution Factor	
DL	Detection Limit (DoD/DOE)	
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample	
DLC	Decision Level Concentration (Radiochemistry)	8
EDL	Estimated Detection Limit (Dioxin)	
LOD	Limit of Detection (DoD/DOE)	9
LOQ	Limit of Quantitation (DoD/DOE)	
MDA	Minimum Detectable Activity (Radiochemistry)	
MDC	Minimum Detectable Concentration (Radiochemistry)	
MDL	Method Detection Limit	
ML	Minimum Level (Dioxin)	
NC	Not Calculated	
ND	Not Detected at the reporting limit (or MDL or EDL if shown)	
PQL	Practical Quantitation Limit	
QC	Quality Control	
RER	Relative Error Ratio (Radiochemistry)	
RL	Reporting Limit or Requested Limit (Radiochemistry)	
RPD	Relative Percent Difference, a measure of the relative difference between two points	

RPD Relative Percent Difference, a measure of the relative difference between two points

- TEF Toxicity Equivalent Factor (Dioxin)
- TEQ Toxicity Equivalent Quotient (Dioxin)

TestAmerica Job ID: 490-166738-1

Client Sample Results

Client: Alpha Analytical Inc Project/Site: L1901655

Client Sample ID: INFLUENT Date Collected: 01/14/19 09:45

Date Received: 01/16/19 09:00

Method: 1671A - Ethanol (Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		2000	500	ug/L			01/17/19 11:31	1
Surrogate Isopropyl acetate (Surr)	%Recovery 77	Qualifier	Limits				Prepared	Analyzed 01/17/19 11:31	Dil Fac

TestAmerica Job ID: 490-166738-1

Lab Sample ID: 490-166738-2

Matrix: Water

5 6

Client Sample Results

Client: Alpha Analytical Inc Project/Site: L1901655

Client Sample ID: EFFLUENT Date Collected: 01/14/19 09:15 Date Received: 01/16/19 09:00

Method: 1671A - Ethanol (GC/	FID)								
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethanol	ND		2000	500	ug/L			01/17/19 11:37	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Isopropyl acetate (Surr)	75		70 - 130			-		01/17/19 11:37	1

QC Sample Results

1 2 3 4 5 6 7 8 9 10 11 12

Method:	1671A -	Ethanol	(GC/FID)

Lab Sample ID: MB 490-5	570122/4							Clie	ent Sam	ple ID: Met	thod	Blank
Matrix: Water										Prep Type	e: Tot	tal/NA
Analysis Batch: 570122												
-	r	MB MB										
Analyte	Res	ult Qualifier	RL		MDL	Unit	D	Р	repared	Analyze	d	Dil Fac
Ethanol	I	ND	2000		500	ug/L		-		01/17/19 10):54	1
	I	MB MB										
Surrogate	%Recove	ery Qualifier	Limits					Р	repared	Analyze	d	Dil Fac
Isopropyl acetate (Surr)		76	70 - 130							01/17/19 10	0:54	1
Lab Sample ID: LCS 490-	570122/5						Client	Sai	nple ID	: Lab Cont	rol Sa	ample
Matrix: Water										Prep Type	e: Tot	tal/NA
Analysis Batch: 570122												
			Spike	LCS	LCS					%Rec.		
Analyte			Added	Result	Qua	lifier	Unit	D	%Rec	Limits		
Ethanol			50200	55240			ug/L		110	70 - 130		
	LCS I	LCS										
Surrogate	%Recovery	Qualifier	Limits									
Isopropyl acetate (Surr)	78		70 - 130									
Lab Sample ID: LCSD 49	0-570122/12					c	lient Sam	ple	ID: Lab	Control Sa	ample	e Dup
Matrix: Water										Prep Type	e: Tot	al/NA
Analysis Batch: 570122												
-			Spike	LCSD	LCS	D				%Rec.		RPD
Analyte			Added	Result	Qua	lifier	Unit	D	%Rec	Limits	RPD	Limit
Ethanol			50200	55560			ug/L		111	70 - 130	1	20
	LCSD I	LCSD										
Surrogate	%Recovery	Qualifier	Limits									
Isopropyl acetate (Surr)	76		70 - 130									

Serial_No:05241911:57

QC Association Summary

Client: Alpha Analytical Inc Project/Site: L1901655 TestAmerica Job ID: 490-166738-1

GC VOA

Analysis Batch: 570122

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
490-166738-1	INFLUENT	Total/NA	Water	1671A	
490-166738-2	EFFLUENT	Total/NA	Water	1671A	
MB 490-570122/4	Method Blank	Total/NA	Water	1671A	
LCS 490-570122/5	Lab Control Sample	Total/NA	Water	1671A	
LCSD 490-570122/12	Lab Control Sample Dup	Total/NA	Water	1671A	

Serial_No:05241911:57

				Lab C	hronic	е				
Client: Alpha A Project/Site: L1		TestAmerica Job ID: 490-166738-								0-166738-1
Client Samp	ole ID: INF	LUENT					La	b Sample I	D: 490-	166738-1
Date Collected									Ma	trix: Water
-	Batch	Batch		Dil	Initial	Final	Batch	Prepared		
Prep Type Total/NA	Type Analysis	_ Method 1671A	Run	Factor	Amount	Amount	- Number 570122	or Analyzed 01/17/19 11:31	Analyst	TAL NSH
Client Samp							La	b Sample I	D. 450-	100/30-2
Date Collected Date Received	d: 01/14/19 0 d: 01/16/19 0								Ma	trix: Water
				Dil	Initial	Final	Batch	Prepared	Ma	trix: Water
Date Received	3: 01/16/19 09 Batch Type	9:00 Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Number	or Analyzed	Analyst	Lab
Date Received	1: 01/16/19 09 Batch	9:00 Batch	Run					•	Analyst	
Date Received	d: 01/16/19 09 Batch Type Analysis	9:00 Batch Method 1671A		Factor 1	Amount	Amount	Number 570122	or Analyzed	Analyst	Lab

TestAmerica Nashville

Method Summary

Client: Alpha Analytical Inc Project/Site: L1901655

Method 1671A

TestAmerica Job ID: 490-166738-1

lethod	Method Description	Protocol	Laboratory	
671A	Ethanol (GC/FID)	EPA	TAL NSH	4
	leferences:			5
EPA = l	JS Environmental Protection Agency			
-	/ References:			
TAL NS	H = TestAmerica Nashville, 2960 Foster Creighton Drive, Nashville, TN 37204, TEL (615)726-0177			
				8
				9

Laboratory References:

TestAmerica Nashville

Accreditation/Certification Summary

Client: Alpha Analytical Inc Project/Site: L1901655 TestAmerica Job ID: 490-166738-1

Laboratory: TestAmerica Nashville

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program		EPA Region	Identification Num	ber Expiration Date
California	State Program		9	2938	06-30-19 *
The following analytes the agency does not c	•	the laboratory	is not certified by the	e governing authority.	This list may include analytes for v
Analysis Method	Prep Method	Matrix	Analyt	e	
1671A		Water	Ethan	ol	
Maine	State Program		1	TN00032	11-03-19
The following analytes the agency does not c	• •	the laboratory	r is not certified by the	e governing authority.	This list may include analytes for v
the agency does not o	• •	the laboratory Matrix			This list may include analytes for v
0,	offer certification.		r is not certified by the Analyt Ethan	e	This list may include analytes for t
the agency does not of Analysis Method 1671A	offer certification.	Matrix	Analyt	e	This list may include analytes for v
the agency does not of Analysis Method 1671A Massachusetts	offer certification. Prep Method State Program s are included in this report, but	Matrix Water	Analyt Ethan 1	e ol M-TN032 e governing authority.	

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

12

TestAmerica		
THE LEADER IN ENVIRONMENTAL TESTING Nashville, TN	OOLER RECEIPT FORM	490-166738 Chain of Custody
Cooler Received/Opened On01-16-2019_@_ Time Samples Removed From Cooler_09:2 1. Tracking # 2 £30669019038 [last 4 IR Gun ID31470368 pH Strip 2. Temperature of rep. sample or temp blank w	digits, FedEx) Courier: UP5	NDA
3. If Item #2 temperature is 0° C or less, was the		n? YES NONA
4. Were custody seals on outside of cooler?		YESNONA
If yes, how many and where:		
5. Were the seals intact, signed, and dated corre	ectly?	YESNO. (NA)
6. Were custody papers inside cooler?	R	Z YESNONA
I certify that I opened the cooler and answered g	uestions 1-6 (intial)	$\overline{}$
7. Were custody seals on containers:	YES (NO) and Intact	YESNONA
Were these signed and dated correctly?		YESNONA
8. Packing mat'l used? Bubblewrap Plas	tic bag Peanuts Vermiculite Foam Inser	rt Paper Other None
9. Cooling process:	Lce Ice-pack Ice (direct contact) D	ry ice Other None
10. Did all containers arrive in good condition (u	inbroken)?	ESNONA
11. Were all container labels complete (#, date, s	signed, pres., etc)?	ESNONA
12. Did all container labels and tags agree with	custody papers?	ESNONA
13a. Were VOA vials received?		YES)NONA
b. Was there any observable headspace prese	ent in any VOA vial?	YESNONA
Larger than this.		
14. Was there a Trip Blank in this cooler?	YES(NONA If multiple coolers, s	equence #
I certify that I unloaded the cooler and answered	questions 7-14 (initial) $\partial \cdot \delta$	
15a. On pres'd bottles, did pH test strips sugges	t preservation reached the correct pH leve	I? YESNONA
, b. Did the bottle labels indicate that the corre	ct preservatives were used	(ESNONA
16. Was residual chlorine present?		YESNONA
I certify that I checked for chlorine and pH as per	SOP and answered questions 15-16 (intial	<u><u><u></u><u></u><u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u></u></u>
17. Were custody papers properly filled out (ink,	signed, etc)?	YESNONA
18. Did you sign the custody papers in the appro	opriate place?	EsNONA
19. Were correct containers used for the analysi	s requested?	
20. Was sufficient amount of sample sent in eac	h container?	ESNONA
I certify that I entered this project into LIMS and a	answered questions 17-20 (intial)	0.2
I certify that I attached a label with the unique LI	AS number to each container (intial)	<u>d.</u> d
21. Were there Non-Conformance issues at logir	? YES Was a NCM generated? YES	Ng#

		c	ubcontra	act Chain of Custody	- 166738		<u>_</u>	
				ashville) Ighton Drive 204	1	Alpha Job Nu L1901655	umber	
Clier	t Information		Project In	formation	Regulatory Requ	uirements/Report Limit	ts	
Client: Alpha Anal Address: Eight Walki Westborou	ytical Labs up Drive gh, MA 01581-1019	Project Location: Project Manager: Turnarou	Dave Sanfo	erables Information	State/Federal Program: Regulatory Criteria:			
Phone: 508.439.51 Email: dsanford@	57 alphalab.com	Due Date: Deliverables:	- · · ·					
		Project Specific	Requirem	ents and/or Report Requ	irements			
Ref	erence following Alpha Jo	b Number on final report/o	deliverables	L1901655 R	eport to include Method Blan	k, LCS/LCSD:		
Additional Commen	its: Send all results/reports	s to subreports@alphalab	.com					
							land an	
Lab ID	Client ID	Collection Date/Time	Sample				Batch	
			Matrix	Analysi	S		QC	
	INFLUENT EFFLUENT	01-14-19 09:45 01-14-19 09:15	WATER WATER WATER	Analysi Ethanol by EPA 1671 Revision A Ethanol by EPA 1671 Revision A	<u>S</u>		<u>QC</u>	
	INFLUENT	01-14-19 09:45	WATER		<u>S</u>		<u>QC</u>	
	INFLUENT	01-14-19 09:45 01-14-19 09:15	WATER		Received By:	Date/Time:	QC 04:1	
	INFLUENT EFFLUENT Relinquisl	01-14-19 09:45 01-14-19 09:15	WATER	Ethanol by EPA 1671 Revision A Ethanol by EPA 1671 Revision A Dațe/Time:	Received By:	Date/Time:	QC	

12

Serial_No:05241911:57

. .



ANALYTICAL REPORT

Lab Number:	L1921819
Client:	GeoInsight One Monarch Drive Littleton, MA 01460
ATTN: Phone: Project Name:	Robert Reynolds (978) 679-1600 PARK 77
Project Name. Project Number: Report Date:	6638-011 05/28/19

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0574), IL (200077), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #P330-17-00196).

Eight Walkup Drive, Westborough, MA 01581-1019 508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com



Serial_No:05281916:25

Project Name:PARK 77Project Number:6638-011

 Lab Number:
 L1921819

 Report Date:
 05/28/19

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L1921819-01	MA71-04_RECEIVING WATER	WATER	NEW STREET, CAMBRIDGE	05/23/19 10:30	05/23/19



Project Name: PARK 77 Project Number: 6638-011

 Lab Number:
 L1921819

 Report Date:
 05/28/19

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Michelle M. Mining Michelle M. Morris

Authorized Signature:

Title: Technical Director/Representative

Date: 05/28/19



METALS



Serial_No:05281916:25

77	Lab Number:	L1921819
011	Report Date:	05/28/19
SAMPLE RESULTS		
819-01	Date Collected:	05/23/19 10:30
04_RECEIVING WATER	Date Received:	05/23/19
STREET, CAMBRIDGE	Field Prep:	Not Specified
	011 SAMPLE RESULTS 819-01 04_RECEIVING WATER	Report Date: 011 Report Date: SAMPLE RESULTS 819-01 Date Collected: 04_RECEIVING WATER Date Received:

Sample Depth:

Matrix:

Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
											-
Total Metals - Ma	nsfield Lab										
Antimony, Total	ND		mg/l	0.00400		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Arsenic, Total	0.00256		mg/l	0.00100		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Cadmium, Total	ND		mg/l	0.00020		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Chromium, Total	ND		mg/l	0.00100		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Copper, Total	0.00185		mg/l	0.00100		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Iron, Total	1.61		mg/l	0.050		1	05/24/19 12:40	0 05/25/19 14:12	EPA 3005A	19,200.7	PS
Lead, Total	0.00216		mg/l	0.00100		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Mercury, Total	ND		mg/l	0.00020		1	05/28/19 09:02	2 05/28/19 11:43	EPA 245.1	3,245.1	GD
Nickel, Total	ND		mg/l	0.00200		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Selenium, Total	ND		mg/l	0.00500		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Silver, Total	ND		mg/l	0.00040		1	05/24/19 12:40	0 05/25/19 13:54	EPA 3005A	3,200.8	MG
Zinc, Total	ND		mg/l	0.01000		1	05/24/19 12:40) 05/25/19 13:54	EPA 3005A	3,200.8	MG
Total Hardness by	y SM 2340B	- Mansfie	ld Lab								
Hardness	76.5		mg/l	0.660	NA	1	05/24/19 12:40	0 05/25/19 14:12	EPA 3005A	19,200.7	PS
	•	8 - Mansfie		0.660	NA	1	05/24/19 12:40) 05/25/19 14:12	EPA 3005A	19,200.7	

General Chemistry - Mansfield Lab

Chromium, Trivalent	ND	mg/l	0.010	 1	05/25/19 13:54	NA	107,-



 Lab Number:
 L1921819

 Report Date:
 05/28/19

Project Name:PARK 77Project Number:6638-011

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifie	r Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansf	ield Lab for sample(s): 01 Batc	h: WG12	40968	·1				
Antimony, Total	ND	mg/l	0.00400		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Arsenic, Total	ND	mg/l	0.00100		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Cadmium, Total	ND	mg/l	0.00020		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Chromium, Total	ND	mg/l	0.00100		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Copper, Total	ND	mg/l	0.00100		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Lead, Total	ND	mg/l	0.00100		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Nickel, Total	ND	mg/l	0.00200		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Selenium, Total	ND	mg/l	0.00500		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Silver, Total	ND	mg/l	0.00040		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG
Zinc, Total	ND	mg/l	0.01000		1	05/24/19 12:40	05/25/19 11:40	3,200.8	MG

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	
Total Metals - Mansf	ield Lab for sample(s):	01 Batch	n: WG12	241283-	1				
Iron, Total	ND	mg/l	0.050		1	05/24/19 12:40	05/26/19 14:51	19,200.7	LC

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Hardness by SM 2	340B - Mansfield Lab	for samp	ole(s): 01	Bato	h: WG124	1283-1			
Hardness	ND	mg/l	0.660	NA	1	05/24/19 12:40	05/26/19 14:51	19,200.7	LC

Prep Information

Digestion Method: EPA 3005A



Serial_No:05281916:25

 Lab Number:
 L1921819

 Report Date:
 05/28/19

Project Name:PARK 77Project Number:6638-011

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared		Analytica Method	
Total Metals - Man	sfield Lab for sample(s):	01 Bato	h: WG12	241644	·1				
Mercury, Total	ND	mg/l	0.00020		1	05/28/19 09:02	05/28/19 11:24	3,245.1	GD
		0						,	

Prep Information

Digestion Method: EPA 245.1



Lab Control Sample Analysis

Batch Quality Control

Project Name: PARK 77 Project Number: 6638-011 Lab Number: L1921819 Report Date: 05/28/19

LCSD %Recovery LCS **RPD** Limits %Recovery Qual %Recovery Limits RPD Parameter Qual Qual Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1240968-2 Antimony, Total 95 85-115 -Arsenic, Total 105 85-115 --Cadmium, Total 114 85-115 --Chromium, Total 85-115 100 --Copper, Total 100 85-115 --Lead. Total 112 85-115 --Nickel, Total 103 85-115 --Selenium, Total 85-115 114 --Silver, Total 85-115 108 --Zinc, Total 114 85-115 --Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1241283-2 106 85-115 Iron. Total --Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 Batch: WG1241283-2 85-115 Hardness 105 -Total Metals - Mansfield Lab Associated sample(s): 01 Batch: WG1241644-2 85-115 Mercury, Total 103



Matrix Spike Analysis Batch Quality Control

Project Name:PARK 77Project Number:6638-011

 Lab Number:
 L1921819

 Report Date:
 05/28/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qua	MSD al Found	MSD %Recovery	Recovery Qual Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab	Associated san	nple(s): 01	QC Batch	ID: WG124096	8-3	QC Sample	: L1921290-01	Client ID: MS Sa	ample		
Antimony, Total	ND	0.5	0.5855	117		-	-	70-130	-		20
Arsenic, Total	0.00101	0.12	0.1315	109		-	-	70-130	-		20
Cadmium, Total	ND	0.051	0.06012	118		-	-	70-130	-		20
Chromium, Total	ND	0.2	0.2033	102		-	-	70-130	-		20
Copper, Total	0.00231	0.25	0.2491	99		-	-	70-130	-		20
Lead, Total	ND	0.51	0.5918	116		-	-	70-130	-		20
Nickel, Total	ND	0.5	0.5118	102		-	-	70-130	-		20
Selenium, Total	ND	0.12	0.1361	113		-	-	70-130	-		20
Silver, Total	ND	0.05	0.05373	107		-	-	70-130	-		20
Zinc, Total	ND	0.5	0.5676	114		-	-	70-130	-		20
Total Metals - Mansfield Lab	Associated san	nple(s): 01	QC Batch	ID: WG124096	8-5	QC Sample	: L1921290-02	Client ID: MS Sa	ample		
Antimony, Total	ND	0.5	0.5197	104		-		70-130	-		20
Arsenic, Total	0.00106	0.12	0.1289	106		-	-	70-130	-		20
Cadmium, Total	ND	0.051	0.05802	114		-	-	70-130	-		20
Chromium, Total	ND	0.2	0.2016	101		-	-	70-130	-		20
Copper, Total	0.00311	0.25	0.2548	101		-	-	70-130	-		20
Lead, Total	ND	0.51	0.5903	116		-	-	70-130	-		20
Nickel, Total	ND	0.5	0.5124	102		-	-	70-130	-		20
Selenium, Total	ND	0.12	0.1340	112		-	-	70-130	-		20
Silver, Total	ND	0.05	0.05342	107		-	-	70-130	-		20
Zinc, Total	ND	0.5	0.5606	112		-	-	70-130	-		20



Matrix Spike Analysis Batch Quality Control

Project Name:	PARK 77				
Project Number:	6638-011				

 Lab Number:
 L1921819

 Report Date:
 05/28/19

MS MS MSD RPD Native MS MSD Recovery Sample Added Found %Recovery Found Limits %Recovery Limits RPD Parameter Total Metals - Mansfield Lab Associated sample(s): 01 QC Sample: L1921290-01 Client ID: MS Sample QC Batch ID: WG1241283-3 Iron, Total 0.050 1.14 109 75-125 20 1 -Total Hardness by SM 2340B - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1241283-3 QC Sample: L1921290-01 Client ID: MS Sample 529 66.2 612 125 75-125 20 Hardness -_ Total Metals - Mansfield Lab Associated sample(s): 01 QC Batch ID: WG1241644-3 QC Sample: L1921192-01 Client ID: MS Sample Mercury, Total ND 0.005 0.00529 106 70-130 20 _



Lab Duplicate Analysis Batch Quality Control

Project Name: PARK 77 Project Number: 6638-011 Lab Number: L1921819 Report Date:

05/28/19

Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
QC Batch ID: WG12409	968-4 QC Sample:	L1921290-01	Client ID: D	UP Sample	
ND	ND	mg/l	NC		20
0.00101	0.00107	mg/l	5		20
ND	ND	mg/l	NC		20
ND	ND	mg/l	NC		20
0.00231	0.00231	mg/l	0		20
ND	ND	mg/l	NC		20
ND	ND	mg/l	NC		20
ND	ND	mg/l	NC		20
ND	ND	mg/l	NC		20
ND	ND	mg/l	NC		20
	QC Batch ID: WG12409 ND 0.00101 ND 0 ND 0	QC Batch ID: WG1240968-4 QC Sample: ND ND 0.00101 0.00107 ND ND ND ND	QC Batch ID: WG1240968-4 QC Sample: L1921290-01 ND Mg/l 0.00101 0.00107 mg/l ND ND mg/l	QC Batch ID: WG1240968-4 QC Sample: L1921290-01 Client ID: D ND Ng/l NC 0.00101 0.00107 mg/l 5 ND ND mg/l NC ND ND mg/l NC	QC Batch ID: WG1240968-4 QC Sample: L1921290-01 Client ID: DUP Sample ND mg/l NC 0.00101 0.00107 mg/l 5 ND Mg/l NC 1000000000000000000000000000000000000



Lab Duplicate Analysis Batch Quality Control

Project Name:PARK 77Project Number:6638-011

Lab Number: L1921819

Report Date: 05/28/19

Parameter	Native Sample Du	uplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01	QC Batch ID: WG1240968-	6 QC Sample:	L1921290-02	Client ID:	DUP Sample
Antimony, Total	ND	ND	mg/l	NC	20
Arsenic, Total	0.00106	0.00123	mg/l	15	20
Cadmium, Total	ND	ND	mg/l	NC	20
Chromium, Total	ND	ND	mg/l	NC	20
Copper, Total	0.00311	0.00328	mg/l	5	20
Lead, Total	ND	ND	mg/l	NC	20
Nickel, Total	ND	ND	mg/l	NC	20
Selenium, Total	ND	ND	mg/l	NC	20
Silver, Total	ND	ND	mg/l	NC	20
Zinc, Total	ND	ND	mg/l	NC	20
otal Metals - Mansfield Lab Associated sample(s): 01	QC Batch ID: WG1241283-	4 QC Sample:	L1921290-01	Client ID:	DUP Sample
Iron, Total	0.050	ND	mg/l	NC	20
otal Metals - Mansfield Lab Associated sample(s): 01	QC Batch ID: WG1241644-	4 QC Sample:	L1921192-01	Client ID:	DUP Sample
Mercury, Total	ND	ND	mg/l	NC	20



INORGANICS & MISCELLANEOUS



1,7196A

JW

Lab Number: L1921819 Report Date: 05/28/19

05/23/19 23:00 05/24/19 00:06

Project Name:PARK 77Project Number:6638-011

ND

Chromium, Hexavalent

SAMPLE RESULTS

Lab ID: Client ID:		1921819-01 MA71-04_RECEIVING WATER						eceived: 05/23/19		
Sample Location:	NEW STREI	ET, CAM	BRIDGE				Field P	rep: N	Not Specified	
Sample Depth: Matrix:	Water									
Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Wes	stborough Lab)								
Nitrogen, Ammonia	0.091		mg/l	0.075		1	05/24/19 03:00	05/24/19 18:36	121,4500NH3-BH	ML

1

0.010

mg/l



Project Name:PARK 77Project Number:6638-011

 Lab Number:
 L1921819

 Report Date:
 05/28/19

Method Blank Analysis Batch Quality Control

Parameter	Result Qualif	ier Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - W	Vestborough Lab for	sample(s): 01	Batch:	WG12	240711-1				
Chromium, Hexavalent	ND	mg/l	0.010		1	05/23/19 23:00	05/24/19 00:06	1,7196A	JW
General Chemistry - V	Vestborough Lab for	sample(s): 01	Batch:	WG12	240742-1				
Nitrogen, Ammonia	ND	mg/l	0.075		1	05/24/19 03:00	05/24/19 18:20	121,4500NH3-BI	H ML



Lab Control Sample Analysis Batch Quality Control

Lab Number: L1921819 Report Date: 05/28/19

Parameter General Chemistry - Westborough Lab A	LCS %Recovery Qua ssociated sample(s): 01	LCSD al %Recovery Qua Batch: WG1240711-2	%Recovery I Limits	RPD	Qual	RPD Limits	
Chromium, Hexavalent	100	-	85-115			20	
General Chemistry - Westborough Lab A	ssociated sample(s): 01	Batch: WG1240742-2					
Nitrogen, Ammonia	100	-	80-120	-		20	



Project Name:

Project Number: 6638-011

PARK 77

Matrix Spike Analysis

Project Name:	PARK 77	Batch Quality Control	Lab Number:	L1921819
Project Number:	6638-011		Report Date:	05/28/19

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		SD und	MSD %Recovery Qual	Recovery Limits	RPD Qual	RPD Limits
General Chemistry - Westboro 04_RECEIVING WATER	ough Lab Assoc	iated sample	e(s): 01	QC Batch ID: V	WG1240711	-4	QC Sample: L1921819	-01 Client I	D: MA71-	
Chromium, Hexavalent	ND	0.1	0.105	105		-	-	85-115	-	20
General Chemistry - Westboro	ugh Lab Assoc	iated sample	e(s): 01	QC Batch ID: V	NG1240742	-4	QC Sample: L1921511	-03 Client I	D: MS Samp	е
Nitrogen, Ammonia	0.113	4	4.94	121	Q	-	-	80-120	-	20



Project Name: Project Number:	PARK 77 6638-011			Duplicate A Batch Quality Co			Lab Numbei Report Date	- 1	L1921819 05/28/19
Parameter		Native	Sample	Duplicate Sam	ple Units	RPD	Qual	RPD L	imits
General Chemistry - Wes 04_RECEIVING WATER	•	Associated sample(s): 01	QC Batch ID:	WG1240711-3	QC Sample: L19	21819-01	Client ID: M/	\71-	
Chromium, Hexavalent		Ν	ID	ND	mg/l	NC		2	:0
General Chemistry - Wes	stborough Lab	Associated sample(s): 01	QC Batch ID:	WG1240742-3	QC Sample: L19	21511-03	Client ID: DL	JP Samp	le
Nitrogen, Ammonia		0.1	113	0.102	mg/l	10		2	20



 Project Name:
 PARK 77

 Project Number:
 6638-011

Sample Receipt and Container Information

YES

Were project specific reporting limits specified?

Cooler Information

Cooler	Custody Seal
A	Absent

Container Info	rmation		Initial	Final	Temp			Frozen	
Container ID	Container Type	Cooler	рН	pН	deg C	Pres	Seal	Date/Time	Analysis(*)
L1921819-01A	Plastic 250ml HNO3 preserved	А	<2	<2	4.1	Y	Absent		HARDU(180)
L1921819-01B	Plastic 250ml HNO3 preserved	A	<2	<2	4.1	Y	Absent		CD-2008T(180),NI-2008T(180),ZN- 2008T(180),CU-2008T(180),FE-UI(180),AG- 2008T(180),AS-2008T(180),HG-U(28),SE- 2008T(180),CR-2008T(180),PB-2008T(180),SB- 2008T(180)
L1921819-01C	Plastic 950ml unpreserved	А	7	7	4.1	Y	Absent		HEXCR-7196(1)
L1921819-01D	Plastic 500ml H2SO4 preserved	А	<2	<2	4.1	Y	Absent		NH3-4500(28)



Serial_No:05281916:25

Project Name: PARK 77

Project Number: 6638-011

Lab Number: L1921819

Report Date: 05/28/19

GLOSSARY

Acronyms

Acronyms	
DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
	Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
	 Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit. N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL
RE .	includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.
Footnotes	

Footnotes

Report Format: Data Usability Report



Project Name:	PARK 77	Lab Number:	L1921819
Project Number:	6638-011	Report Date:	05/28/19

1

- The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum. Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Waterpreserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'. Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

- A Spectra identified as "Aldol Condensation Product".
- B The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).
- C Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- **D** Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
- H The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I The lower value for the two columns has been reported due to obvious interference.
- J -Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).
- M Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- **ND** Not detected at the reporting limit (RL) for the sample.
- NJ Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P The RPD between the results for the two columns exceeds the method-specified criteria.
- Q The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- **R** Analytical results are from sample re-analysis.
- **RE** Analytical results are from sample re-extraction.
- **S** Analytical results are from modified screening analysis.

Project Name:PARK 77Project Number:6638-011

 Lab Number:
 L1921819

 Report Date:
 05/28/19

REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 107 Alpha Analytical In-house calculation method.
- 121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.



Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility

EPA 624/624.1: m/p-xylene, o-xylene **EPA 8260C:** <u>NPW</u>: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; <u>SCM</u>: Iodomethane (methyl iodide), Methyl methacrylate, 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene. **EPA 8270D:** <u>NPW</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine; <u>SCM</u>: Dimethylnaphthalene,1,4-Diphenylhydrazine.

EPA 6860: SCM: Perchlorate

SM4500: <u>NPW</u>: Amenable Cyanide; <u>SCM</u>: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility

SM 2540D: TSS EPA 8082A: <u>NPW</u>: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187. EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene. Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water

EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; EPA 353.2: Nitrate-N, Nitrite-N; SM4500NO3-F: Nitrate-N, Nitrite-N; SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B EPA 332: Perchlorate; EPA 524.2: THMs and VOCs; EPA 504.1: EDB, DBCP. Microbiology: SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D.

Non-Potable Water

SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, EPA 350.1: Ammonia-N, LACHAT 10-107-06-1-B: Ammonia-N, EPA 351.1, SM4500NO3-F, EPA 353.2: Nitrate-N, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate. EPA 624.1: Volatile Halocarbons & Aromatics, EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs EPA 625.1: SVOC (Acid/Base/Neutral Extractables), EPA 600/4-81-045: PCB-Oil. Microbiology: SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603.

Mansfield Facility:

Drinking Water EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. EPA 200.8: Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. EPA 245.1 Hg. EPA 522.

Non-Potable Water EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn. EPA 200.8: Al, Sb, As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn. EPA 245.1 Hg. SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:05281916:25

ALPHA	CHAIN O	F CUSTO	DY	AGE		Date F	tec'd in	Lab:	5/2	3/1	9	The second	A	LPHA J	ob #: (19218/)
8 Walkup Drive	320 Forbes Bivd	Project Informa				Contraction in the		-	on - Da	11	2	bles		illing In		and the second s	
Westboro, MA Tel: 508-898-9	01581 Mansfield, MA 02048	Project Name:	Dev 7.	Ŧ		ALAD			EMAI	_	-		-	Same as	Contraction of the	12 College and the second	
Client Information	on	Project Location:	View ST	rest Can	buche	Requ	latory	Requ	iiremer	iis ê	<u>.</u> .Р	oject	Info	mation	Require	ements	0.55
Client: Great	sight, Inc.	Project #: 66	38-0	11		Q Yes	No No	Matrix		quired	l on th	is SDC		equired fo	or MCP In	RCP Analytical M norganics)	ethods
Multoss. One J	Jamesch Dr. Smite 201	Project Manager:	Lob Key	motols						s (Info	Requ	red for	Meta	ls & EPH	with Targ	jets)	
	an, MA 01460	ALPHA Quote #:		COLUMN ST	Concession of the local division of the loca	Oth Oth	er State	_	Program		_	_	_	Crit	eria		
222	Project Information:	Date Due:	IME RUSH (MI)	r confirmed if pre-ay	oproved()	ANALYSIS	1054.2		DRCRAB DPD	C Ranges Only	Ranges Only	Jerprim	Under >				
Chrom	untals: antrimony, unt3, Copper, ino un, 4 silver, and Z	n, lead, m	etunium	i, cha	cel,	1.	WETALS. D ABN D PAL	METALS: DMCP 13 DM	EPH: URanges & Tarrier Decr 15	D PCP DRanges & Targers D Ranges Only	DPEST	Harringerprine	Ch Total Minules	annin an		Filtration	lo on
ALPHA Lab ID (Lab Use Only)	Sample ID	Co	llection Time	Sample Matrix	Sampler Initials	100	METAL	METAL	EPH: C	D PCP	TPHE	Herr	Here's	7 /	14	Sample Comm	
21819-01	MA71-04_Reci	ensing 60000 5/23/14	16:30	water	CAS								< ×				L
Container Type P= Plastic A= Amber glass V= Vial G= Glass B= Bacteria cup	Preservative A= None B= HCI C= HNO ₂ D= H ₂ SO ₄		F	Pre	iner Type aservative							PP	P D				
C= Cube C= Cube C= Other E= Encore D= BOD Bottle cage 24 of 24	E= NaOH F= MeOH G= NaHSO4 H = Na ₂ S ₂ O3 I= Ascorbic Acid J = NH ₄ CI K= Zn Acetate O= Other	Relinquished By:	5/2		e/Time <u>1:30</u>)530	U	Hud		By:	AM	- 6	Dat 123	e/Tim //f2 /(4	1493-5	lpha's Te See revers	rms and Condition se side.	bject to s.



MADEP CORRESPONDENCE

Hi Timothy,

Thank you for including the flow diagrams – I remember that I had questions about the discharge location last time. I can confirm that the 7Q10 you derived and the dilution factor calculated (2.387) for this proposed RGP discharge from the project site at 75 and 83 New St. in Cambridge to the Alewife/Little River are correct.

You have correctly identified this segment of the Alewife as MA71-04. As you know from last time, it is classified as Class B, is not listed as and Outstanding Resource Water, and there are no approved TMDLs at this time. To see the causes of impairments, go to: <u>https://www.mass.gov/files/documents/2016/08/sa/14list2_0.pdf</u> and search for "MA71-04".

If this is not a *current* MCP site then you will also have to apply to MassDEP by following the instructions at: <u>https://www.mass.gov/how-to/wm-15-npdes-general-permit-notice-of-intent</u>. There is also a \$500 fee unless the applicant is fee-exempt (e.g. a municipality).

Please let me know if you have any questions.

Cathy

Cathy Vakalopoulos, Massachusetts Department of Environmental Protection 1 Winter St., Boston, MA 02108, 617-348-4026 Please consider the environment before printing this e-mail

From: Timothy W. Maus [mailto:twmaus@geoinc.com]
Sent: Thursday, May 23, 2019 12:48 PM
To: Vakalopoulos, Catherine (DEP)
Cc: Robert C. Reynolds
Subject: Request for Low-Flow 7Q10 and Dilution Factor Confirmation - EPA RGP NOI

Good Afternoon Catherine,

Per the requirements of 2017 EPA Remediation General Permit (RGP), could you please confirm the low flow 7Q10 for waterbody segment MA71-04 in Cambridge, MA and the below dilution factor calculation. I have attached the StreamStat Low-Flow Statistics Flow Report for the approximate location and associated basin where discharge under the RGP is proposed and provided the dilution factor calculation below. Treated effluent from the project site (75 and 83 New Street, Cambridge, MA) is proposed to be discharged into storm drains located near the Property. The storm drain system carries water from the project site approximately 1 mile to the northeast before discharging to a storm water outfall which drains to segment MA71-04. A figure showing the flow path of the treated effluent and discharge point is attached for reference. We had previously filed a RGP NOI for this project and discharged under Authorization # MAG910713 from October 2017 through January 2019. A Notice of Termination for Authorization # MAG910713 was filed in February 2019, but we will need to begin discharging again to complete construction activities. If you have any questions or require any additional information, please do not hesitate to contact me.

The DF was calculated using the following equation: DF = $(Q_S + Q_D)/Q_D$

Where:

 Q_s = Receiving water 7Q10 flow where 7Q10 is the minimum flow for 7 consecutive days with a recurrence interval of 10 years. The estimated 7Q10 flow (Q_c) for segment MA71-04 (from USGS Streamstats data) is 0.1997 million gallons per day (MGD).

Q_D = Estimated Maximum Flow = 100 gpm x 60 min/hr x 24 hr/day = 60,000 GPD or **0.1440 MGD**

Maximum Flow DF: (0.1997 + 0.1440)/0.1440 = 2.387



TIMOTHY W. MAUS, p.g. Project Geologist / Office Health & Safety Manager O. 978.679.1600 | C. 954.647.6631 One Monarch Drive, Suite 201, Littleton, MA 01460

Environmental | Geotechnical + Civil Engineering | Water Supply | EHS Compliance Manchester, NH | Middletown, CT | Littleton, MA | York, ME Blog | Facebook | LinkedIn | Twitter

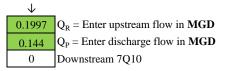
Get The Latest: Gcolnsight News

ATTACHMENT G

USEPA APPENDIX V DILUTION FACTOR AND WQBEL SPREADSHEET

Enter number values in green boxes below

Enter values in the units specified



Enter a dilution factor, if other than zero



Enter values in the units specified

 $\begin{array}{c} \downarrow \\ \hline 467 \\ \hline 76.5 \\ \hline C_s = \text{Enter receivin} \end{array}$

 C_d = Enter influent hardness in **mg/L** CaCO₃ C_s = Enter receiving water hardness in **mg/L** CaCO₃

Enter receiving water concentrations in the units specified

 \downarrow pH in Standard Units 6.7 10.5 Temperature in ^oC 0.091 Ammonia in **mg/L** Hardness in mg/L CaCO₃ 76.5 0 Salinity in **ppt** Antimony in **µg/L** 0 Arsenic in µg/L 2.56 Cadmium in µg/L 0 Chromium III in µg/L 0 Chromium VI in µg/L 0 Copper in µg/L 1.85 Iron in µg/L 1,610 Lead in **µg/L** 2.16 Mercury in µg/L 0 Nickel in µg/L 0 Selenium in µg/L 0 Silver in µg/L 0

Notes:

Freshwater: Q_R equal to the 7Q10; enter alternate Q_R if approved by the State; enter 0 if no dilution factor approved Saltwater (estuarine and marine): enter Q_R if approved by the State; enter 0 if no entry Discharge flow is equal to the design flow or 1 MGD, whichever is less Only if approved by State as the entry for Q_R ; leave 0 if no entry

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

Freshwater only

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

Zinc in µg/L

0

Enter influent concentrations in the units specified

 \downarrow TRC in µg/L 0 Ammonia in mg/L 22.3 Antimony in µg/L 0 8.25 Arsenic in µg/L Cadmium in µg/L 0 Chromium III in µg/L 0 Chromium VI in µg/L 0 8.65 Copper in µg/L 40,900 Iron in µg/L Lead in µg/L 4.2 Mercury in µg/L 0 Nickel in µg/L 8.44 Selenium in µg/L 0 Silver in µg/L 0 Zinc in µg/L 11.64 0 Cyanide in **µg/L** Phenol in µg/L 0 Carbon Tetrachloride in µg/L 0 Tetrachloroethylene in **µg/L** 0 5 Total Phthalates in µg/L Diethylhexylphthalate in µg/L 0 0 Benzo(a)anthracene in µg/L 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 0 Dibenzo(a,h)anthracene in µg/L Indeno(1,2,3-cd)pyrene in µg/L 0 Methyl-tert butyl ether in µg/L 0

if >1 sample, enter maximum if >10 samples, may enter 95th percentile Enter 0 if non-detect or testing not required

Dilution Factor	2.4					
A. Inorganics	TBEL applies if	bolded	WQBEL applies i	f bolded	Compliance Level applies if shown	
Ammonia	Report	mg/L				
Chloride	Report	μg/L				
Total Residual Chlorine	0.2	μ _g /L mg/L	26	μg/L	50	ug/I
Total Suspended Solids	30	-		μg/L	50	µg/L
-		mg/L		/T		
Antimony	206	μg/L	1528	μg/L		
Arsenic	104	μg/L	20	μg/L		
Cadmium	10.2	μg/L	0.5179	μg/L		
Chromium III	323	μg/L	421.5	μg/L		
Chromium VI	323	μg/L	27.3	μg/L		
Copper	242	μg/L	44.5	μg/L		
Iron	5000	μg/L	1000	μg/L		
Lead	160	μg/L	20.16	μg/L		
Mercury	0.739	μg/L	2.16	μg/L		
Nickel	1450	μg/L	261.2	μg/L		
Selenium			11.9			
	235.8	μg/L		μg/L		
Silver	35.1	μg/L	40.7	μg/L		
Zinc	420	μg/L	600.7	μg/L		
Cyanide	178	mg/L	12.4	μg/L		μg/L
B. Non-Halogenated VOCs	100	~				
Total BTEX	100	μg/L				
Benzene	5.0	μg/L α/I				
1,4 Dioxane Acetone	200 7970	μg/L μg/L				
Phenol	1,080	μg/L μg/L	716	μg/L		
C. Halogenated VOCs	1,000	μ6/12	/10	μg/L		
Carbon Tetrachloride	4.4	μg/L	3.8	μg/L		
1,2 Dichlorobenzene	600	μg/L		10		
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 Ethylene Dibromide	3.2 0.05	μg/L ug/I				
Methylene Chloride	4.6	μg/L μg/L				
1,1,1 Trichloroethane	200	μg/L μg/L				
1,1,2 Trichloroethane	5.0	μg/L				
Trichloroethylene	5.0	μg/L				
Tetrachloroethylene	5.0	μg/L	7.9	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	5.3	μg/L		
Total Group I Polycyclic						
Aromatic Hydrocarbons	1.0	μg/L				
Benzo(a)anthracene	1.0	μg/L	0.0091	μg/L		μg/L
Benzo(a)pyrene	1.0	μg/L	0.0091	μg/L		µg/L

Benzo(b)fluoranthene	1.0	μg/L	0.0091	μg/L		μg/L
Benzo(k)fluoranthene	1.0	μg/L	0.0091	μg/L		μg/L
Chrysene	1.0	μg/L	0.0091	μg/L		μg/L
Dibenzo(a,h)anthracene	1.0	μg/L	0.0091	μg/L		μg/L
Indeno(1,2,3-cd)pyrene	1.0	μg/L	0.0091	μg/L		μg/L
Total Group II Polycyclic						
Aromatic Hydrocarbons	100	μg/L				
Naphthalene	20	μg/L				
E. Halogenated SVOCs						
Total Polychlorinated Biphenyls						
Total Polychlorinated Biphenyls	0.000064	μg/L			0.5	μg/L
Total Polychlorinated Biphenyls Pentachlorophenol	0.000064 1.0	μg/L μg/L			0.5	μg/L
					0.5	μg/L
Pentachlorophenol					0.5	μg/L
Pentachlorophenol F. Fuels Parameters	1.0	μg/L			0.5	μg/L
Pentachlorophenol F. Fuels Parameters Total Petroleum Hydrocarbons	1.0 5.0	μg/L mg/L		μg/L	0.5	μg/L
Pentachlorophenol F. Fuels Parameters Total Petroleum Hydrocarbons Ethanol	1.0 5.0 Report	μg/L mg/L mg/L		μg/L	0.5	μg/L
Pentachlorophenol F. Fuels Parameters Total Petroleum Hydrocarbons Ethanol Methyl-tert-Butyl Ether	1.0 5.0 Report 70	μg/L mg/L mg/L μg/L	 48	μg/L	0.5	μg/L