



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100  
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JAN 26 2015

Thomas J. Denney  
Vice President  
Hanover RS Construction LLC  
2 Seaport Lane, 11th Floor  
Boston, MA 02210

Re: Authorization to discharge under the Remediation General Permit (RGP) –  
MAG910000. Construction of Parking Garage and Residential Development at 130 and  
150 Cambridgepark Drive, Cambridge, MA 02140; Authorization # MAG910657

Dear Mr. Denney:

Based on the review of a Notice of Intent (NOI) submitted by Corinne McKenzie from  
Haley & Aldrich, Inc., on behalf of Hanover RS Construction LLC, for the site  
referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes  
you, as the named Operator, to discharge in accordance with the provisions of the RGP at  
that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are  
required to monitor. Also indicated on the checklist are the effluent limits, test methods  
and minimum levels (MLs) for each pollutant. Please note that the checklist does not  
represent the complete requirements of the RGP. Operators must comply with all of the  
applicable requirements of this permit, including influent and effluent monitoring,  
narrative water quality standards, record keeping, and reporting requirements, found in  
Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete  
RGP and other information at: <http://www.epa.gov/region1/npdes/mass.html#dgp>.

Please note the enclosed checklist includes parameters that your consultant has marked  
"Believed Present". The checklist also includes other parameters that may be found at the  
site based on historic contamination.

Also, please note that the metals included on the checklist are dilution dependent  
pollutants and subject to limitations based on selected dilution ranges and technology-  
based ceiling limitations. For each parameter the dilution factor 5.48 for this site is within  
a dilution range greater than five to ten (>5 – 10), established in the RGP. (See the RGP  
Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 50 ug/l,

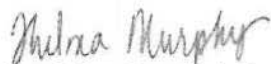
lead of 6.5 ug/L, nickel of 145 ug/L, zinc of 333 g/L and iron of 5,000ug/L, are required to achieve permit compliance at your site.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This EPA general permit and authorization to discharge will expire on September 9, 2015. You have reported this project will terminate on January 1, 2017. Please be aware you are required to reapply for coverage after the EPA expired permit has been reissued. The reissuance date as well as the reapplication submittal date will be posted on the EPA web site at that time. Also, regardless of your project termination date you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or [Alvarez.Victor@epa.gov](mailto:Alvarez.Victor@epa.gov), if you have any questions.

Sincerely,



Thelma Murphy, Chief  
Storm Water and Construction  
Permits Section

Enclosure

cc: Robert Kubit, MassDEP  
Lisa Peterson, Cambridge PWD  
Corinne McKenzie, Haley & Aldrich, Inc.



**2010 Remediation General Permit  
Summary of Monitoring Parameters<sup>[1]</sup>**

<b>NPDES Authorization Number:</b>	<b>MAG910657</b>
Authorization Issued:	January, 2015
Facility/Site Name:	Construction of Parking and Residential Development
Facility/Site Address:	130 and 150 Cambridgepark Drive, Cambridge, MA 02140.
	Email address of owner: <a href="mailto:kbinford@hanoverco.com">kbinford@hanoverco.com</a>
Legal Name of Operator:	Hanover RS Construction LLC
Operator contact name, title, and Address:	Thomas J. Denney, 2 Seaport Lane, 11 <sup>th</sup> Floor, Boston, MA 02140.
	Email: <a href="mailto:TDenney@hanoverco.com">TDenney@hanoverco.com</a>
Estimated date of the site's Completion:	January 15, 2017
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Sub-category A. General Urban Fill Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	Alewife Brook

**Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples**

	<b><u>Parameter</u></b>	<b><u>Effluent Limit/Method#/ML</u></b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) <sup>1</sup>	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
✓	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) <sup>2, 3</sup>	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L

	<b><u>Parameter</u></b>	<b><u>Effluent Limit/Method#/ML</u></b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) <sup>4</sup>	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	14. Naphthalene <sup>5</sup>	20 ug/L /Me#8260C/ML 2ug/L
	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
✓	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
✓	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) <sup>6</sup>	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L



	<b>Parameter</b>	<b>Effluent Limit/Method#/ML</b> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
✓	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
✓	a. Benzo(a) Anthracene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	b. Benzo(a) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	c. Benzo(b)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	d. Benzo(k)Fluoranthene <sup>7</sup>	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	e. Chrysene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	f. Dibenzo(a,h)anthracene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
✓	g. Indeno(1,2,3-cd) Pyrene <sup>7</sup>	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene <sup>5</sup>	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) <sup>8,9</sup>	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	<b>Metal parameter</b>	<b>Total Recoverable MA/Metal Limit <math>H^{10} = 50 \text{ mg/l}</math> <b>CaCO<sub>3</sub>, Units = ug/l (11/12)</b></b>		<b>Minimum level=ML</b>	
		<b>Freshwater Limits</b>			
	39. Antimony	5.6		ML	10
✓	40. Arsenic **	50		ML	20
	41. Cadmium **	0.2		ML	10
	42. Chromium III (trivalent) **	48.8		ML	15
	43. Chromium VI (hexavalent) **	11.4		ML	10
	44. Copper **	5.2		ML	15
	45. Lead **	1.3		ML	20
	46. Mercury **	0.9		ML	02
✓	47. Nickel **	145		ML	20
	48. Selenium **	5		ML	20
	49. Silver	1.2		ML	10
✓	50. Zinc **	333		ML	15
✓	51. Iron	5,000		ML	20

	<b>Other Parameters</b>	<b>Limit</b>
✓	52. Instantaneous Flow	Site specific in CFS
✓	53. Total Flow	Site specific in CFS
✓	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab <sup>13</sup>
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab <sup>13</sup>
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab <sup>14</sup>
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab <sup>14</sup>
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab <sup>14</sup>
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab <sup>14</sup>
	61. Maximum Change in Temperature in MA - Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab <sup>14</sup>
	62. Maximum Change in Temperature in MA - Any Class SA water body - Coastal	1.5°F; 1/Month/Grab <sup>14</sup>
	63. Maximum Change in Temperature in MA - Any Class SB water body - July to September	1.5°F; 1/Month/Grab <sup>14</sup>
	64. Maximum Change in Temperature in MA -Any Class SB water body - October to June	4°F; 1/Month/Grab <sup>14</sup>

Footnotes:



<sup>1</sup> Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).

<sup>2</sup> Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

<sup>3</sup> Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

<sup>4</sup> BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

<sup>5</sup> Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

<sup>6</sup> The sum of individual phthalate compounds (not including the #34, Bis (2-Ethylhexyl) Phthalate). The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

*Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.*

<sup>7</sup> Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

<sup>8</sup> In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Aroclor analyses." Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

<sup>9</sup> Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

<sup>10</sup> Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

<sup>11</sup> For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using  $DF \times 1,000 \text{ ug/L}$  (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =  $1,000 \times 2 = 2,000 \text{ ug/L}$ , etc. not to exceed the DF=5.

<sup>12</sup> Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

<sup>13</sup> pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

<sup>14</sup> Temperature sampling per Method 170.1

**NOTICE OF INTENT (NOI)  
TEMPORARY CONSTRUCTION DEWATERING  
PROPOSED PARKING GARAGE AND  
RESIDENTIAL DEVELOPMENT  
130 AND 150 CAMBRIDGE PARK DRIVE  
CAMBRIDGE, MASSACHUSETTS**

**by**

**Haley & Aldrich, Inc.  
Boston, Massachusetts**

**on behalf of**

**Hanover RS Construction LLC  
Boston, Massachusetts**

**for**

**US Environmental Protection Agency  
Boston, Massachusetts**

**File No. 35060-243  
December 2014**



Haley & Aldrich, Inc.  
465 Medford St.  
Suite 2200  
Boston, MA 02129

Tel: 617.886.7400  
Fax: 617.886.7600  
HaleyAldrich.com



16 December 2014  
File No. 35060-243

US Environmental Protection Agency  
5 Post Office Square, Suite 100  
Mail Code OEP06-4  
Boston, Massachusetts 02109-3912

Attention: Ms. Shelly Puleo

Subject: Notice of Intent (NOI)  
Temporary Construction Dewatering  
Proposed Parking Garage and Residential Development  
130 and 150 CambridgePark Drive  
Cambridge, Massachusetts

Dear Ms. Puleo:

On behalf of Hanover RS Construction LLC, and in accordance with the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in Massachusetts, MAG910000, this letter submits a Notice of Intent (NOI) and the applicable documentation as required by the US Environmental Protection Agency (EPA) for temporary construction site dewatering under the RGP. Temporary dewatering is planned in support of the construction of the proposed parking garage at 150 CambridgePark Drive and the proposed 5-story residential building located at 130 CambridgePark Drive both in Cambridge, Massachusetts, as shown on Figure 1, Project Locus. Although no below grade space is planned, we anticipate construction dewatering will be conducted, as necessary, during open excavations located inside the proposed garage and residential building footprints.

The site is bounded by MBTA commuter rail to the south, the 160 Cambridgepark Drive residential development to the east, the 100 and 150 Cambridgepark Drive commercial office buildings to the north and northeast, beyond which is Cambridgepark Drive, and an at grade bituminous parking lot to the west. The site is currently a paved parking lot with minimal landscape features. Site grades are relatively flat, ranging from about El. 17 at the southern property limit to about EL. 18.5 at the northern property limit Cambridge City Base (CCB) Datum.

## **SITE HISTORY**

Historic site use was evaluated based on a review of historical Sanborn Fire Insurance maps dated 1986, 1990, 1992, 1995, 2003, 2004, 2005, and 2006 and aerial photographs dated 1938, 1955, 1960, 1969, 1978, 1980, 1987, 1995, 2006, 2008, 2010, and 2012. Generally, the site was vacant land prior to development of the West End Iron Works Company buildings circa 1947, then redevelopment into the current surface parking lot for the 150 Cambridgepark Drive office building in the early 1980s. According to a previous environmental report for the site, prior to 1947 the site was vacant and owned by the Boston & Maine Railroad. In 1947, West End Iron Works Company purchased the subject site and constructed several buildings for steel fabrication and scrap metal storage. According to a previous

report, some paints, solvents, and lubrication oils were used at the Iron Works. Use as a metal fabrication and scrap metal storage reportedly continued at the site until 1983, at which point the Iron Works buildings were demolished in preparation for development the current office building and parking lot at 130 and 150 Cambridgepark Drive in 1986. Aerial photographs and Sanborn maps do not indicate significant changes at the subject site since 1987.

## **PROPOSED CONSTRUCTION**

The proposed development will include construction of a 6-story parking structure on the western portion of the Site at 150 Cambridgepark Drive and a 5-story residential building on the eastern portion of the Site at 130 Cambridgepark Drive. No below-grade space is currently planned.

## **MASSACHUSETTS MCP REGULATORY BACKGROUND**

The Site is part of a larger Disposal Site that was previously reported to MassDEP under RTN 3-1411 for elevated concentrations of VOCs in soil (attributed to a limited dried paint waste release) and PAHs in soil (attributed to urban fill). Previous investigations conducted at the site in the early 1990's concluded that conditions at that time did not pose risk for unrestricted future use (residential). A Phase II MCP report and a Class B-1 Response Action Outcome (RAO) Statement were submitted to MassDEP on 1 June 1995. Accordingly, the release site reached regulatory closure without remedial action or implementation of an Activity and Use Limitation (AUL).

RTN 3-30779 was assigned in 2012 and covers a small area of the northern portion of the Site. The release is associated with the detection of metals, PAHs and petroleum hydrocarbons in fill soils at concentrations higher than those previously detected in association with RTN 3-1411 (see below). According to the Phase II Comprehensive Site Assessment, the fill within the limits of the RTN 3-30779 Disposal Site (refer to Figure 2) is of different composition and quality (higher percentage of debris and trash) than fill observed elsewhere on the site. Groundwater testing did not indicate chemical concentrations above Method 1 GW-2 or GW-3 values. A Class A-3 Response Action Outcome (RAO) was filed for RTN 3-30779 in March 2014. The RAO indicates a permanent solution has been achieved in which contamination has not been reduced to background and an Activity and Use Limitation (AUL) is required to maintain a condition of No Significant Risk.

The AUL applies to the portion of the site within the limits of the RTN 3-30779 Disposal Site (refer to Figure 2). Permitted activities and uses include commercial and industrial use, emergency utility work, subsurface work with Licensed Site Professional (LSP) oversight, landscaping, and other activities and uses that do not present greater risk of harm to health, safety, public welfare, or the environment. Activities and uses considered inconsistent with the AUL include use as a residence, day care, playground, educational, or outdoor recreational facility; use to grow fruits, vegetables, or other agricultural products; and subsurface work activities conducted without the oversight of an LSP. Construction activities for the proposed garage will be conducted under a Release Abatement Measure (RAM) Plan in accordance with the MCP. As such, soil and groundwater management activities will be conducted with LSP oversight.



## TEMPORARY CONSTRUCTION DEWATERING NOTICE OF INTENT

In support of the NOI and as part of a limited subsurface exploration program conducted at the Site in January 2014, Haley & Aldrich sampled one (1) existing observation well, designated HA-7(OW). The groundwater sample was submitted to Alpha Analytical, Inc. of Westborough, Massachusetts (Alpha) for analysis of VOCs, SVOCs, total petroleum hydrocarbons (TPH), total metals, dissolved metals, pesticides, PCBs, Total Suspended Solids (TSS), chloride, total cyanide, total phenolics, total residual chlorine, and pH.

Results of the analysis indicate total and dissolved iron, total zinc, and dissolved selenium concentrations above NPDES RGP effluent limits for Category III sites, but below the applicable RCGW-2 Reportable Concentrations in the MCP. The results of water quality testing are summarized in Table I. The location of the observation well is shown on Figure 2.

Dewatering will be conducted from open excavations located inside the proposed garage footprint at 150 Cambridgepark Drive and inside the proposed building footprint at 130 Cambridgepark Drive. Construction activities are scheduled to begin on or about 15 January 2015. Construction dewatering effluent will be recharged on-site to the extent possible. If necessary, excess water will be discharged to the storm drain under this NOI.

Prior to discharge under this NOI, collected water will be routed through a sedimentation tank and/or bag filters, at a minimum, to remove suspended solids and undissolved chemical constituents. Supplemental pretreatment may be required to meet discharge criteria as shown in the Proposed Treatment System Schematic included in Figure 3. Supplemental pretreatment may include Oil/Water Separators, Ion Exchange, granular activated carbon, and/or other treatment technologies as required to meet the NPDES discharge criteria. Construction dewatering under this RGP NOI will include piping and will discharge to storm drains located near the site. The storm drains are on the Site as indicated in Figure 2 and travel east beneath the paved parking at 130 Cambridgepark Drive before traveling north and discharging from outfall "D45" to a drainage ditch leading to Alewife Brook.

## DILUTION FACTOR APPLICATION FOR METALS

A Dilution Factor (DF) was calculated for the detected levels of total metals greater than the applicable effluent limits. The DF is applicable to iron, zinc and selenium and the calculated DF was used to find the appropriate Dilution Range concentrations for these metals. The DF was calculated using the following equation:

$$DF = (Q_d + Q_s)/Q_d$$

Where  $Q_d$  is the maximum discharge flow rate, estimated to be 100 gallons per minute (GPM) or approximately 0.223 cubic feet per second (cfs), and  $Q_s$  is the receiving water flow rate, minimum for 7 consecutive days with a recurrence interval of 10 years, calculated to be 1.0 cfs. Using these estimated/calculated values, the DF is equal to 5.5. According to Appendix IV of the Remediation General Permit, the ceiling limitation for the calculated dilution factor of 5.5 for iron is 5,000 ug/L, zinc is 333 ug/L, and selenium is 25 ug/L. If testing of the dewatering effluent indicates that the iron, zinc or selenium concentrations are greater than 5,000, 333 or 25 ug/L, respectively, pretreatment of the dewatering effluent will include an ion exchange unit or other technology to remove dissolved metals as shown on Figure 3.

## APPENDICES

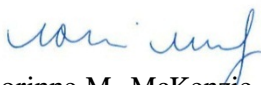
The completed "Suggested Notice of Intent" NOI form as provided in the RGP is enclosed in Appendix A. The operator conducting the Site work, including dewatering activities, is Hanover RS Construction LLC. Haley & Aldrich, Inc. will monitor the Contractor's dewatering activities on behalf of the operator in accordance with the requirements for this NOI submission.

A Best Management Practices Plan (BMPP), which outlines the proposed discharge operations covered under the RGP, is included in Appendix B. Appendices C and D include the National Register of Historic Places and Endangered Species Act Documentation, respectively. Appendix E provides the City of Cambridge Dewatering Permit Application to be submitted separately to the City of Cambridge. A copy of the groundwater testing laboratory results are provided in Appendix F.


## CLOSING

Thank you very much for your consideration of this NOI. Please feel free to contact us should you wish to discuss the information contained herein or if you need additional information.

Sincerely yours,  
HALEY & ALDRICH, INC.



Corinne M. McKenzie  
Senior Scientist



Keith E. Johnson, P.E., LSP  
Vice President

### Attachments:

- Table I – Summary of Groundwater Quality Data
- Figure 1 – Site Locus
- Figure 2 –Subsurface Exploration and Discharge Location Plan
- Figure 3 – Proposed Treatment System Schematic
- Appendix A – Notice of Intent (NOI) for Remediation General Permit (RGP)
- Appendix B – Best Management Practices Plan (BMPP)
- Appendix C – Endangered Species Act Documentation
- Appendix D – National Register of Historic Places and Massachusetts Historical Commission Documentation
- Appendix E – Copy of City of Cambridge Dewatering Permit Application
- Appendix F – Laboratory Data Reports

c: City of Cambridge; Attn: Department of Public Works



## **TABLES**

**TABLE I**  
**SUMMARY OF GROUNDWATER QUALITY DATA**  
**130 AND 150 CAMBRIDGE PARK DRIVE**  
**CAMBRIDGE, MASSACHUSETTS**  
**FILE NO. 35060-230**

<b>SAMPLE DESIGNATION</b> <b>SAMPLING DATE</b> <b>LAB SAMPLE ID</b>	<b>MCP 2008</b> <b>RCGW-2</b> <b>Reportable</b> <b>Concentrations</b>  <b>(ug/l)</b>	<b>NPDES</b> <b>RGP</b> <b>Category III</b> <b>Freshwater</b> <b>Criteria</b> <b>(ug/l)</b>	<b>HA-7 (OW)</b> <b>1/6/2014</b> <b>L1400799-01</b> <b>L1400799-01 R1</b>
<b>Total VOCs (ug/l)</b>	NA	NA	ND
<b>Total SVOCs (ug/l)</b>	NA	NA	ND
<b>Microextractables (ug/l)</b> 1,2-Dibromoethane	2	0.05	ND(0.005)
<b>TPH (ug/l)</b>	5000	5000	ND(2000)
<b>Total metals (ug/l)</b>			
Antimony, Total	8000	5.6	ND(0.5)
Arsenic, Total	900	10	7.45
Cadmium, Total	4	0.2	ND(0.1)
Chromium, Total	300	60.2	3.09
Chromium, Hexavalent	300	11.4	ND(5)
Copper, Total	100000	5.2	2.42
Iron, Total	NA	1000	<b>6600</b>
Lead, Total	10	1.3	0.97
Mercury, Total	20	0.9	ND(0.1)
Nickel, Total	200	29	2.04
Selenium, Total	100	5	ND(2.5)
Silver, Total	7	1.2	ND(0.2)
Zinc, Total	900	66.6	<b>283.7</b>
<b>Dissolved metals (ug/l)</b>			
Antimony, Dissolved	8000	5.6	1.41
Arsenic, Dissolved	900	10	6.65
Cadmium, Dissolved	4	0.2	ND(0.1)
Chromium, Dissolved	300	60.2	2.18
Copper, Dissolved	100000	5.2	ND(0.5)
Iron, Dissolved	NA	1000	<b>6300</b>
Lead, Dissolved	10	1.3	ND(0.25)
Mercury, Dissolved	20	0.9	ND(0.1)
Nickel, Dissolved	200	29	1.06
Selenium, Dissolved	100	5	<b>9.84</b>
Silver, Dissolved	7	1.2	ND(0.2)
Zinc, Dissolved	900	66.6	10.87
<b>Total PCBs (ug/l)</b>	NA	0.000064	ND
<b>General Chemistry (ug/l)</b>			
Solids, Total Suspended	NA	30000	ND(5000)
Chloride	NA	Monitor only	328000
Cyanide, Total	30	5.2	ND(2.5)
Chlorine, Total Residual	NA	11	ND(10)
Phenolics, Total	NA	300	ND(15)

**ABBREVIATIONS:**

NA: Not applicable

- : Not analyzed

ND(2.5): Not detected; number in parentheses is one-half the laboratory reporting limit.

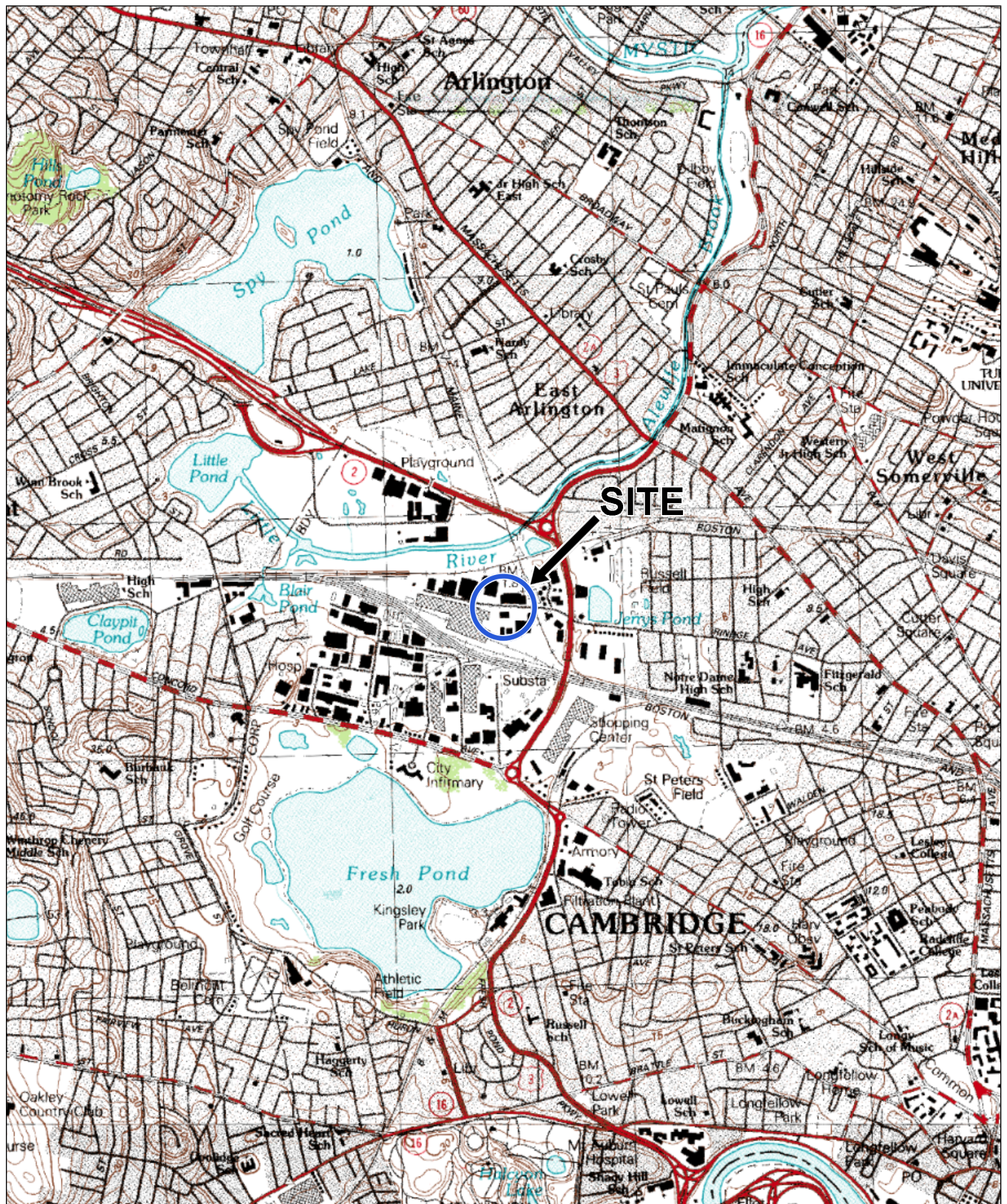
**NOTES:**

1. This table includes only those compounds detected on the dates indicated.
2. **Bold** values detected values exceeding RCGW-2 criteria.
3. **Blue Bold** values detected values exceeding NPDES RGP Category III Criteria.



## FIGURES

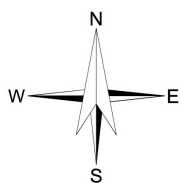




SITE COORDINATES: 42°23'41"N, 71°8'40"W

**HALEY & ALDRICH**

130 AND 150 CAMBRIDGE PARK DRIVE  
CAMBRIDGE, MASSACHUSETTS



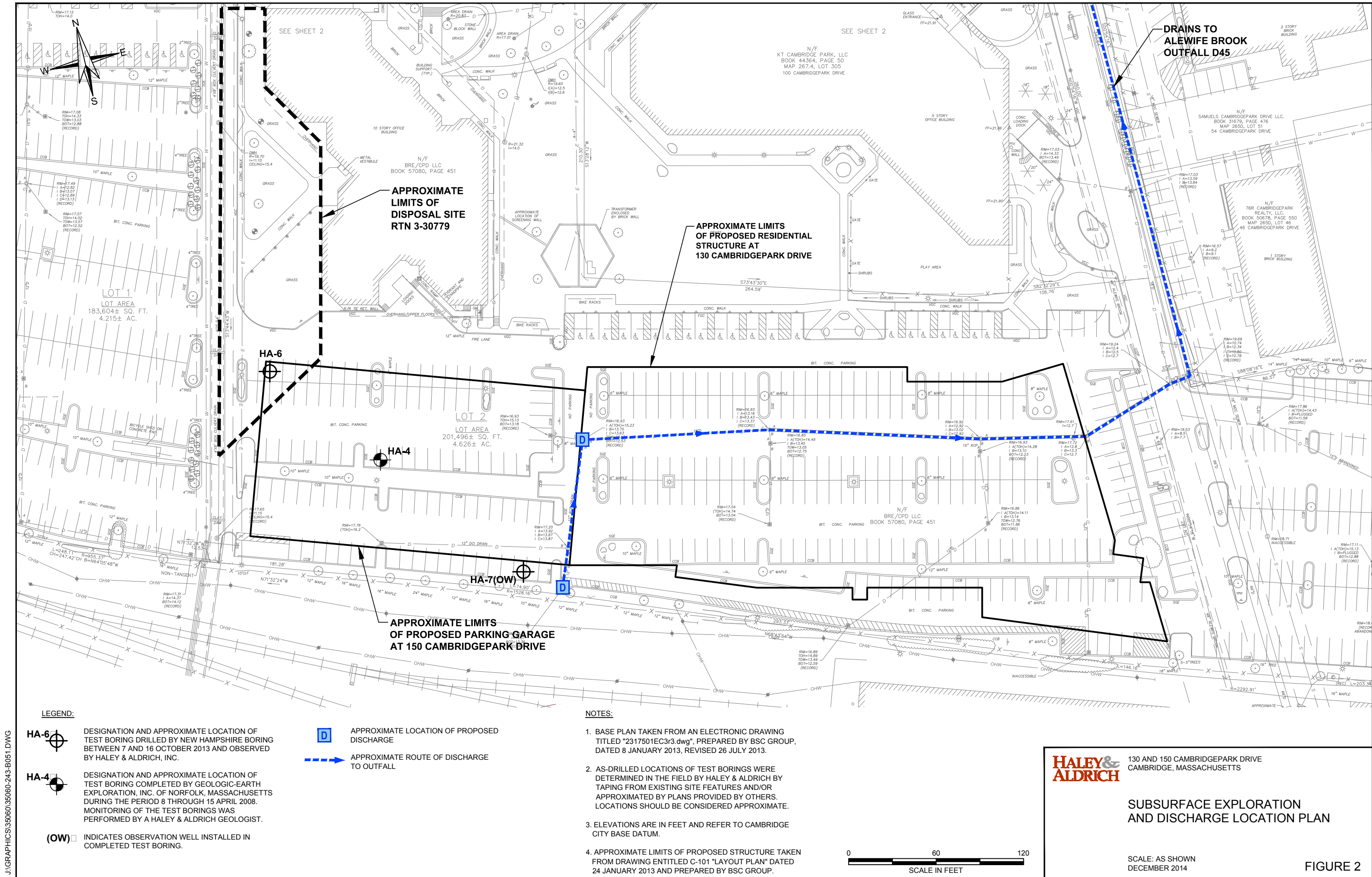
U.S.G.S. QUADRANGLE: LEXINGTON, MA

PROJECT LOCUS

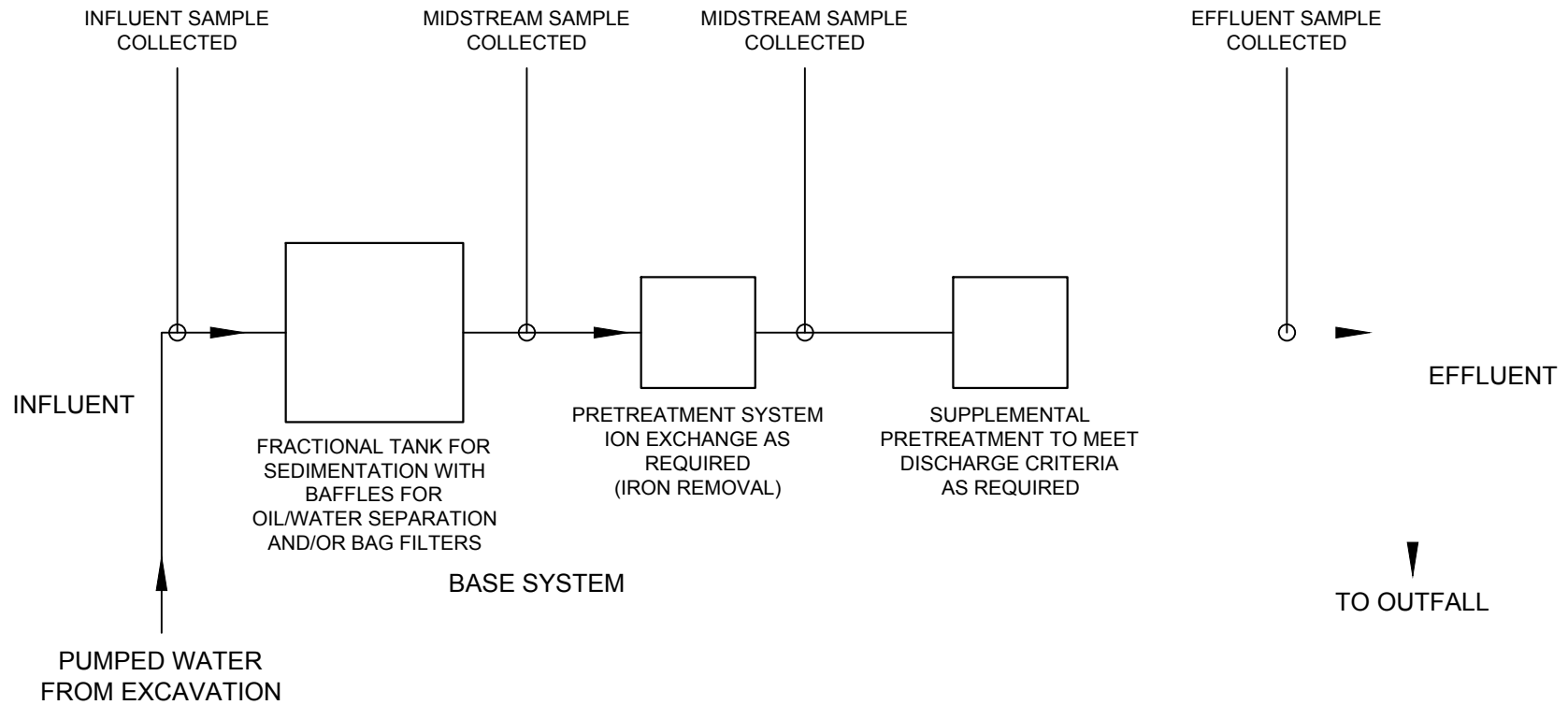
SCALE: 1:24,000  
DECEMBER 2014

FIGURE 1









**LEGEND:**

—▶ DIRECTION OF FLOW

**NOTE:**

1. DETAILS OF TREATMENT SYSTEM MAY VARY FROM SYSTEM INDICATED ABOVE. SPECIFIC MEANS AND METHODS OF TREATMENT TO BE SELECTED BY CONTRACTOR. WATER WILL BE TREATED TO MEET REQUIRED EFFLUENT STANDARDS.

**HALEY & ALDRICH**

130 AND 150 CAMBRIDGE PARK DRIVE  
CAMBRIDGE, MASSACHUSETTS

**PROPOSED TREATMENT SYSTEM  
SCHEMATIC**

SCALE: NONE  
DECEMBER 2014

**FIGURE 3**

## **APPENDIX A**

### **Notice of Intent (NOI) for Remediation General Permit (RGP)**

**B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit**

**1. General facility/site information.** Please provide the following information about the site:

a) Name of <b>facility/site</b> : 130 and 150 Cambridgepark Drive		<b>Facility/site</b> mailing address:	
Location of <b>facility/site</b> : longitude: 71°8'46" W latitude: 42°23'38" N	Facility SIC code(s):	Street: 130 and 150 Cambridgepark Drive	
b) Name of <b>facility/site owner</b> : 130 CPD Apartments Limited Partnership		Town: Cambridge	
Email address of facility/site owner: kbinford@hanoverco.com	State: MA	Zip: 02140	County: Suffolk
Telephone no. of facility/site <b>owner</b> : 713.580.1193		<b>Owner</b> is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/> 3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe:	
Fax no. of facility/site <b>owner</b> : 713.267.2145			
Address of <b>owner</b> (if different from site):			
Street: 5847 San Felipe, Suite 3600			
Town: Houston	State: TX	Zip: 77057	County: Harris
c) Legal name of <b>operator</b> : Hanover RS Construction LLC		<b>Operator</b> telephone no: 8574000682	
<b>Operator</b> fax no.:		<b>Operator</b> email: TDenney@hanoverco.com	
<b>Operator</b> contact name and title: Tom Denney			
Address of <b>operator</b> (if different from owner):		Street: 2 Seaport Lane, 11th Floor	
Town: Boston	State: MA	Zip: 02210	County: Suffolk



d) Check Y for “yes” or N for “no” for the following:

1. Has a prior NPDES permit exclusion been granted for the discharge? Y ☐ N ☒, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?  
Y ☐ N ☒, if Y, date and tracking #:
3. Is the discharge a “new discharge” as defined by 40 CFR 122.2? Y ☒ N ☐
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ☒ N ☐

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ☐ N ☒

If Y, please list:

1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:

1. Multi-Sector General Permit? Y ☐ N ☒,  
if Y, number:
2. Final Dewatering General Permit? Y ☐ N ☒,  
if Y, number:
3. EPA Construction General Permit? Y ☐ N ☒,  
if Y, number:
4. Individual NPDES permit? Y ☐ N ☒,  
if Y, number:
5. Any other water quality related individual or general permit? Y ☐ N ☒, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ☐ N ☒

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

<u>Activity Category</u>	<u>Activity Sub-Category</u>
I - Petroleum Related Site Remediation	A. Gasoline Only Sites <input type="checkbox"/> B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) <input type="checkbox"/> C. Petroleum Sites with Additional Contamination <input type="checkbox"/>
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites <input type="checkbox"/> B. VOC Sites with Additional Contamination <input type="checkbox"/> C. Primarily Heavy Metal Sites <input type="checkbox"/>
III - Contaminated Construction Dewatering	A. General Urban Fill Sites <input checked="" type="checkbox"/> B. Known Contaminated Sites <input type="checkbox"/>

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites <input type="checkbox"/> B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites <input type="checkbox"/> C. Hydrostatic Testing of Pipelines and Tanks <input type="checkbox"/> D. Long-Term Remediation of Contaminated Sumps and Dikes <input type="checkbox"/> E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) <input type="checkbox"/>
---------------------------------------	---

**2. Discharge information.** Please provide information about the discharge, (attaching additional sheets as necessary) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage:			
Temporary Construction Dewatering			
b) Provide the following information about each discharge:			
1) Number of discharge points:	2) What is the <b>maximum</b> and <b>average flow rate</b> of discharge (in cubic feet per second, ft <sup>3</sup> /s)?		
2	Max. flow <input type="text" value="0.223"/> Is maximum flow a <b>design value</b> ? Y <input type="radio"/> N <input checked="" type="radio"/> Average flow (include units) <input type="text" value="0.1 cfs"/> Is average flow a <b>design value</b> or estimate? <input type="text" value="estimate"/>		
3) Latitude and longitude of each discharge within 100 feet:			
pt.1: lat.	<input n"="" type="text" value="42°23'36.8"/>	long.	<input n"="" type="text" value="71°08'45.4"/>
pt.2: lat.	<input n"="" type="text" value="42°23'37.7"/>	long.	<input n"="" type="text" value="71°08'44.9"/>
pt.3: lat.	<input type="text"/>	long.	<input type="text"/>
pt.4: lat.	<input type="text"/>	long.	<input type="text"/>
pt.5: lat.	<input type="text"/>	long.	<input type="text"/>
pt.6: lat.	<input type="text"/>	long.	<input type="text"/>
pt.7: lat.	<input type="text"/>	long.	<input type="text"/>
pt.8: lat.	<input type="text"/>	long.	<input type="text"/>
etc.			
4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent <input checked="" type="radio"/> or seasonal <input type="radio"/> ?		
<input type="text" value="NA"/>	Is discharge ongoing? Y <input type="radio"/> N <input checked="" type="radio"/>		
c) Expected dates of discharge (mm/dd/yy): start <input type="text" value="1/15/2015"/> end <input type="text" value="1/15/2017"/>			
d) Please attach a line drawing or flow schematic showing water flow through the facility including:			
1. sources of intake water. 2. contributing flow from the operation. 3. treatment units. and 4. discharge points and receiving waters(s).			
<input type="text" value="See Figures 2 and 3"/>			

**3. Contaminant information.**

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
1. Total Suspended Solids (TSS)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	30, 2540D	10,000	ND		ND	
2. Total Residual Chlorine (TRC)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	30, 4500CL-D	20	ND		ND	
3. Total Petroleum Hydrocarbons (TPH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	1664A	400	ND		ND	
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	4500CN-CE	5	ND		ND	
5. Benzene (B)	71432	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.75	ND		ND	
7. Ethylbenzene (E)	100414	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	1	ND		ND	
9. Total BTEX <sup>2</sup>	n/a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	NA	ND		ND	
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup>	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.01	ND		ND	
11. Methyl-tert-Butyl Ether (MtBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	1	ND		ND	
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	10	ND		ND	

\* Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

<sup>2</sup> BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

<sup>3</sup> EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.



<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
13. tert-Amyl Methyl Ether (TAME)	9940508	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2	ND		ND	
14. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2.5	ND		ND	
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2.5	ND		ND	
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2.5	ND		ND	
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	2.5	ND		ND	
18a. Total dichlorobenzene		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	NA	ND		ND	
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.75	ND		ND	
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
22. cis-1,2 Dichloroethene (DCE)	156592	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	3	ND		ND	
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.75	ND		ND	
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	0.5	ND		ND	

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
28. Vinyl Chloride (Chloroethene)	75014	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	1	ND		ND	
29. Acetone	67641	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C	5	ND		ND	
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8260C-SIM	3	ND		ND	
31. Total Phenols	108952	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	420.1	30	ND		ND	
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D	0.8	ND		ND	
33. Total Phthalates (Phthalate esters) <sup>4</sup>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D	NA	ND		ND	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D	3	ND		ND	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB			ND		ND	
a. Benzo(a) Anthracene	56553	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
b. Benzo(a) Pyrene	50328	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
c. Benzo(b)Fluoranthene	205992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
d. Benzo(k)Fluoranthene	207089	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
e. Chrysene	21801	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
g. Indeno(1,2,3-cd) Pyrene	193395	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB			ND		ND	

<sup>4</sup> The sum of individual phthalate compounds.

<u>Parameter *</u>	<u>CAS Number</u>	<u>Believed Absent</u>	<u>Believed Present</u>	<u># of Samples</u>	<u>Sample Type (e.g., grab)</u>	<u>Analytical Method Used (method #)</u>	<u>Minimum Level (ML) of Test Method</u>	<u>Maximum daily value</u>		<u>Average daily value</u>	
								<u>concentration (ug/l)</u>	<u>mass (kg)</u>	<u>concentration (ug/l)</u>	<u>mass (kg)</u>
h. Acenaphthene	83329	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
k. Benzo(ghi) Perylene	191242	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
l. Fluoranthene	206440	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
m. Fluorene	86737	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
n. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
o. Phenanthrene	85018	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
p. Pyrene	129000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	8270D-SIM	0.2	ND		ND	
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	608	0.25	ND		ND	
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	300.0	25000	328000		328000	
39. Antimony	7440360	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	02	ND		ND	
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	1	4.34		4.34	
41. Cadmium	7440439	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	0.2	ND		ND	
42. Chromium III (trivalent)	16065831	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	1	ND		ND	
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	3500CR-D	10	ND		ND	
44. Copper	7440508	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	1	ND		ND	
45. Lead	7439921	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	0.2	0.85		0.85	
46. Mercury	7439976	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	245.1	0.2	ND		ND	
47. Nickel	7440020	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	0.2	1.87		1.87	
48. Selenium	7782492	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	GRAB	1632A	5	ND		ND	
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>	1	GRAB	6020	0.4	ND		ND	
50. Zinc	7440666	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	6020	5	18.28		18.28	
51. Iron	7439896	<input type="checkbox"/>	<input checked="" type="checkbox"/>	1	GRAB	200.7	50	1700		1700	
Other (describe):		<input type="checkbox"/>	<input type="checkbox"/>								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
		<input type="checkbox"/>	<input type="checkbox"/>								
		<input type="checkbox"/>	<input type="checkbox"/>								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

<p><i>Step 1:</i> Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y <input checked="" type="radio"/> N <input type="radio"/></p>	<p>If yes, which metals?</p> <p>Iron, Zinc, Selenium</p>										
<p><i>Step 2:</i> For any metals which exceed the <b>Appendix III</b> limits, calculate the <b>dilution factor (DF)</b> using the formula in Part I.A.3.c (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals?</p> <table border="1"> <tr> <td>Metal: Iron</td> <td>DF: 5.5</td> </tr> <tr> <td>Metal: Zinc</td> <td>DF: 5.5</td> </tr> <tr> <td>Metal: Selenium</td> <td>DF: 5.5</td> </tr> <tr> <td>Metal: </td> <td>DF: </td> </tr> <tr> <td>Etc.</td> <td></td> </tr> </table>	Metal: Iron	DF: 5.5	Metal: Zinc	DF: 5.5	Metal: Selenium	DF: 5.5	Metal:	DF:	Etc.		<p>Look up the limit calculated at the corresponding dilution factor in <b>Appendix IV</b>. Do any of the metals in the <b>influent</b> have the potential to exceed the corresponding <b>effluent</b> limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)?</p> <p>Y <input checked="" type="radio"/> N <input type="radio"/> If Y, list which metals:</p> <p>Iron</p>
Metal: Iron	DF: 5.5										
Metal: Zinc	DF: 5.5										
Metal: Selenium	DF: 5.5										
Metal:	DF:										
Etc.											

**4. Treatment system information.** Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

See Attached Figure 3

b) Identify each applicable treatment unit (check all that apply):	Frac. tank <input checked="" type="checkbox"/>	Air stripper <input type="checkbox"/>	Oil/water separator <input checked="" type="checkbox"/>	Equalization tanks <input type="checkbox"/>	Bag filter <input checked="" type="checkbox"/>	GAC filter <input checked="" type="checkbox"/>
	Chlorination <input type="checkbox"/>	De-chlorination <input type="checkbox"/>	Other (please describe):	Additional pretreatment as necessary to meet NPDES RGP Discharge Criteria.		



c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate(s)** (gallons per minute) of the treatment system:

Average flow rate of discharge  gpm Maximum flow rate of treatment system  gpm  
Design flow rate of treatment system  gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

N/A

**5. Receiving surface water(s).** Please provide information about the receiving water(s), using separate sheets as necessary:

a) Identify the discharge pathway:	Direct to receiving water <input type="checkbox"/>	Within facility (sewer) <input type="checkbox"/>	Storm drain <input checked="" type="checkbox"/>	Wetlands <input type="checkbox"/>	Other (describe): <input type="text"/>
------------------------------------	--	--	---	-----------------------------------	---

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Effluent will be discharged to storm drains which discharge to a drainage ditch leading to Alewife Brook. Alewife Brook is a tributary to the Mystic River.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:

1. For multiple discharges, number the discharges sequentially.
  2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
- The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water  cfs  
Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☒ N ☐ If yes, for which pollutant(s)?

Is there a final TMDL? Y ☒ N ☐ If yes, for which pollutant(s)?

**6. ESA and NHPA Eligibility.**

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ☒ B ☐ C ☐ D ☐ E ☐ F ☐

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ☐ N ☐ Underway ☐

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received? Y ☒ N ☐

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ☐ 2 ☒ 3 ☐

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.


**7. Supplemental information.**

Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

Laboratory Data is provided in Appendix F

**8. Signature Requirements:** The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

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

Facility/Site Name:	130 and 150 Cambridgepark Drive
Operator signature:	
Printed Name & Title:	Thomas J. Denney - Vice President
Date:	1/5/15



## **APPENDIX B**

### **Best Management Practices Plan (BMPP)**

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDATION GENERAL PERMIT  
TEMPORARY CONSTRUCTION DEWATERING  
PROPOSED PARKING GARAGE  
150 CAMBRIDGEPARK DRIVE  
CAMBRIDGE, MASSACHUSETTS**

**Best Management Practices Plan**

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction dewatering planned to occur during the construction of the proposed parking garage located at 150 Cambridgepark Drive in Cambridge, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

**Water Treatment and Management**

Construction dewatering will be conducted using a combination of drainage ditches and sumps located inside the excavation. The treatment system will be designed by the Contractor. Prior to discharge, collected water will likely be routed through a sedimentation tank with baffles for oil/water separation, bag filters, and granular activated carbon (GAC), as required, to remove suspended solids and undissolved chemical constituents. Supplemental pretreatment may be required to meet discharge criteria as shown on the Proposed Treatment System Schematic included in Figure 3. Construction dewatering under this RGP NOI will include piping and discharging to storm drains located near the site. The storm drains travel east beneath paved parking at 130 Cambridgepark Drive before traveling north and discharging from outfall "D45" to a drainage ditch leading to Alewife Brook.

**Discharge Monitoring and Compliance**

Regular sampling and testing will be conducted by the Contractor at the treated effluent as required by the RGP. This includes chemical testing required within the first month of discharging, and the monthly testing to be conducted through the end of the scheduled discharge.

Monitoring will include checking the condition of the treatment system, assessing the need for treatment system adjustments based on monitoring data, observing and recording daily flow rates and discharge quantities, and verifying the flow path of the discharged effluent.

The total monthly flow will be monitored by checking and documenting the flow through the flow meter to be installed on the system. Flow will be maintained below the "system design flow" by regularly monitoring flow and adjusting the amount of construction dewatering as needed.

Monthly monitoring reports will be compiled and maintained at the site.

**System Maintenance**

A number of methods will be used to minimize the potential for violations for the term of this permit. Scheduled regular maintenance of the treatment system will be conducted to verify proper operation. Regular maintenance will include checking the condition of the treatment system equipment such as the

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM  
REMEDATION GENERAL PERMIT  
TEMPORARY CONSTRUCTION DEWATERING  
PROPOSED PARKING GARAGE  
150 CAMBRIDGE PARK DRIVE  
CAMBRIDGE, MASSACHUSETTS**

fractionization tanks, filters, hoses, pumps, and flow meters. Equipment will be monitored daily for potential issues or unscheduled maintenance requirements.

Employees who have direct or indirect responsibility for ensuring compliance with the RGP will be trained by the Operator.

**Miscellaneous Items**

It is anticipated that the excavation support system, erosion control measures, and the nature of the site and surrounding infrastructure will minimize potential runoff to or from the site. The project specifications also include requirements for erosion control.

Site security for the treatment system will be covered within the overall site security plan. .

No adverse affects of designated water uses of surrounding surface water bodies is anticipated. Old Harbor is the nearest surface water body to the site located approximately 0.3 miles from the construction activities on site. Dewatering effluent will be pumped to a sedimentation tank with baffles for oil/water separation, bag filters, and GAC, as required, prior to discharge to the storm drains.

**Management of Treatment System Materials**

Groundwater analytical data for the site is below the applicable MCP RCGW-2 criteria but above the NPDES RGP criteria for total and dissolved iron, total and dissolved zinc and dissolved selenium. Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The contractor will establish staging areas on the site for any equipment or materials storage which may be possible sources of pollution away from any dewatering activities.

Sediment from the fractionalization tank used in the treatment system will be characterized and disposed of as soil at an appropriate receiving facility in accordance with applicable laws and regulations. GAC will be recycled and/or removed from the site to an appropriate receiving facility. Bag filters will be placed in drums and manifested for off-site disposal.



## **APPENDIX C**

### **Endangered Species Act Documentation**

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## MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

November 2010

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### Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

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#### **Bourne Back River**

(1,850 acres, 1989) Bourne

**Canoe River Aquifer and Associated Areas** (17,200 acres, 1991) Easton, Foxborough, Mansfield, Norton, Sharon, and Taunton

#### **Cedar Swamp**

(1,650 acres, 1975) Hopkinton and Westborough

#### **Central Nashua River Valley**

(12,900 acres, 1996) Bolton, Harvard, Lancaster, and Leominster

#### **Cranberry Brook Watershed**

(1,050 acres, 1983) Braintree and Holbrook

#### **Ellisville Harbor**

(600 acres, 1980) Plymouth

#### **Fowl Meadow and Ponkapoag Bog**

(8,350 acres, 1992) Boston, Canton, Dedham, Milton, Norwood, Randolph, Sharon, and Westwood

#### **Golden Hills**

(500 acres, 1987) Melrose, Saugus, and Wakefield

#### **Great Marsh (originally designated as Parker River/Essex Bay)**

(25,500 acres, 1979) Essex, Gloucester, Ipswich, Newbury, and Rowley

#### **Herring River Watershed**

(4,450 acres, 1991) Bourne and Plymouth

#### **Hinsdale Flats Watershed**

(14,500 acres, 1992) Dalton, Hinsdale, Peru, and Washington

#### **Hockomock Swamp**

(16,950 acres, 1990) Bridgewater, Easton, Norton, Raynham, Taunton, and West Bridgewater

#### **Inner Cape Cod Bay**

(2,600 acres, 1985) Brewster, Eastham, and Orleans

#### **Kampoosa Bog Drainage Basin**

(1,350 acres, 1995) Lee and Stockbridge

#### **Karner Brook Watershed**

(7,000 acres, 1992) Egremont and Mount Washington

#### **Miscoe, Warren, and Whitehall Watersheds**

(8,700 acres, 2000) Grafton, Hopkinton, and Upton

#### **Neponset River Estuary**

(1,300 acres, 1995) Boston, Milton, and Quincy

#### **Petapawag**

(25,680 acres, 2002) Ayer, Dunstable, Groton, Pepperell, and Tyngsborough

#### **Pleasant Bay**

(9,240 acres, 1987) Brewster, Chatham, Harwich, and Orleans

#### **Pocasset River**

(160 acres, 1980) Bourne

#### **Rumney Marshes**

(2,800 acres, 1988) Boston, Lynn, Revere, Saugus, and Winthrop

#### **Sandy Neck Barrier Beach System**

(9,130 acres, 1978) Barnstable and Sandwich

#### **Schenob Brook Drainage Basin**

(13,750 acres, 1990) Mount Washington and Sheffield

#### **Squannassit**

(37,420 acres, 2002) Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley, and Townsend

#### **Three Mile River Watershed**

(14,280 acres, 2008) Dighton, Norton, Taunton

#### **Upper Housatonic River**

(12,280 acres, 2009) Lee, Lenox, Pittsfield, Washington

#### **Waquoit Bay**

(2,580 acres, 1979) Falmouth and Mashpee

#### **Weir River**

(950 acres, 1986) Cohasset, Hingham, and Hull

#### **Wellfleet Harbor**

(12,480 acres, 1989) Eastham, Truro, and Wellfleet

#### **Weymouth Back River**

(800 acres, 1982) Hingham and Weymouth

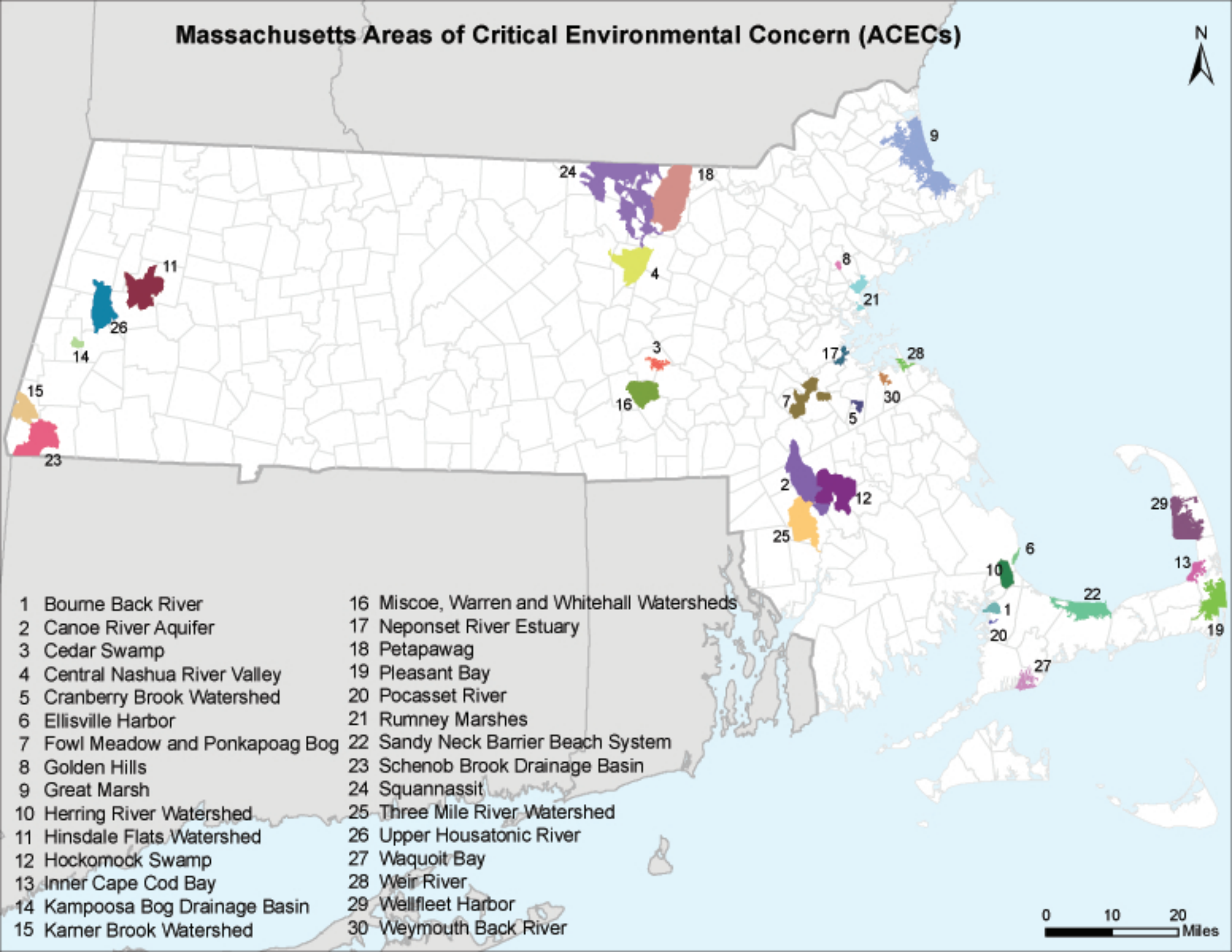
## Towns with ACECs within their Boundaries

November 2010

TOWN	ACEC	TOWN	ACEC
Ashby	Squannassit	Mt. Washington	Karner Brook Watershed
Ayer	Petapawag		Schenob Brook
	Squannassit	Newbury	Great Marsh
Barnstable	Sandy Neck Barrier Beach System	Norton	Hockomock Swamp
Bolton	Central Nashua River Valley		Canoe River Aquifer
Boston	Rumney Marshes		Three Mile River Watershed
	Fowl Meadow and Ponkapoag Bog	Norwood	Fowl Meadow and Ponkapoag Bog
	Neponset River Estuary	Orleans	Inner Cape Cod Bay
Bourne	Pocasset River		Pleasant Bay
	Bourne Back River	Pepperell	Petapawag
	Herring River Watershed		Squannassit
Braintree	Cranberry Brook Watershed	Peru	Hinsdale Flats Watershed
Brewster	Pleasant Bay	Pittsfield	Upper Housatonic River
	Inner Cape Cod Bay	Plymouth	Herring River Watershed
Bridgewater	Hockomock Swamp		Ellisville Harbor
Canton	Fowl Meadow and Ponkapoag Bog	Quincy	Neponset River Estuary
Chatham	Pleasant Bay	Randolph	Fowl Meadow and Ponkapoag Bog
Cohasset	Weir River	Raynham	Hockomock Swamp
Dalton	Hinsdale Flats Watershed	Revere	Rumney Marshes
Dedham	Fowl Meadow and Ponkapoag Bog	Rowley	Great Marsh
Dighton	Three Mile River Watershed	Sandwich	Sandy Neck Barrier Beach System
Dunstable	Petapawag	Saugus	Rumney Marshes
Eastham	Inner Cape Cod Bay		Golden Hills
	Wellfleet Harbor	Sharon	Canoe River Aquifer
Easton	Canoe River Aquifer		Fowl Meadow and Ponkapoag Bog
	Hockomock Swamp	Sheffield	Schenob Brook
Egremont	Karner Brook Watershed	Shirley	Squannassit
Essex	Great Marsh	Stockbridge	Kampoosa Bog Drainage Basin
Falmouth	Waquoit Bay	Taunton	Hockomock Swamp
Foxborough	Canoe River Aquifer		Canoe River Aquifer
Gloucester	Great Marsh		Three Mile River Watershed
Grafton	Miscoe-Warren-Whitehall Watersheds	Truro	Wellfleet Harbor
		Townsend	Squannassit
Groton	Petapawag	Tyngsborough	Petapawag
	Squannassit	Upton	Miscoe-Warren-Whitehall Watersheds
Harvard	Central Nashua River Valley		
	Squannassit	Wakefield	Golden Hills
Harwich	Pleasant Bay	Washington	Hinsdale Flats Watershed
Hingham	Weir River		Upper Housatonic River
	Weymouth Back River	Wellfleet	Wellfleet Harbor
Hinsdale	Hinsdale Flats Watershed	W Bridgewater	Hockomock Swamp
Holbrook	Cranberry Brook Watershed	Westborough	Cedar Swamp
Hopkinton	Miscoe-Warren-Whitehall Watersheds	Westwood	Fowl Meadow and Ponkapoag Bog
		Weymouth	Weymouth Back River
	Cedar Swamp	Winthrop	Rumney Marshes
Hull	Weir River		
Ipswich	Great Marsh		
Lancaster	Central Nashua River Valley		
	Squannassit		
Lee	Kampoosa Bog Drainage Basin		
	Upper Housatonic River		
Lenox	Upper Housatonic River		
Leominster	Central Nashua River Valley		
Lunenburg	Squannassit		
Lynn	Rumney Marshes		
Mansfield	Canoe River Aquifer		
Mashpee	Waquoit Bay		
Melrose	Golden Hills		
Milton	Fowl Meadow and Ponkapoag Bog		
	Neponset River Estuary		



# Massachusetts Areas of Critical Environmental Concern (ACECs)



- |                                 |  |
|---------------------------------|--|
| 1 Bourne Back River             | 16 Miscoe, Warren and Whitehall Watersheds |
| 2 Canoe River Aquifer           | 17 Neponset River Estuary                  |
| 3 Cedar Swamp                   | 18 Petapawag                               |
| 4 Central Nashua River Valley   | 19 Pleasant Bay                            |
| 5 Cranberry Brook Watershed     | 20 Pocasset River                          |
| 6 Ellisville Harbor             | 21 Rumney Marshes                          |
| 7 Fowl Meadow and Ponkapoag Bog | 22 Sandy Neck Barrier Beach System         |
| 8 Golden Hills                  | 23 Schenob Brook Drainage Basin            |
| 9 Great Marsh                   | 24 Squannassit                             |
| 10 Herring River Watershed      | 25 Three Mile River Watershed              |
| 11 Hinsdale Flats Watershed     | 26 Upper Housatonic River                  |
| 12 Hockomock Swamp              | 27 Waquoit Bay                             |
| 13 Inner Cape Cod Bay           | 28 Weir River                              |
| 14 Kampoosa Bog Drainage Basin  | 29 Wellfleet Harbor                        |
| 15 Karter Brook Watershed       | 30 Weymouth Back River                     |

0 10 20 Miles

## FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

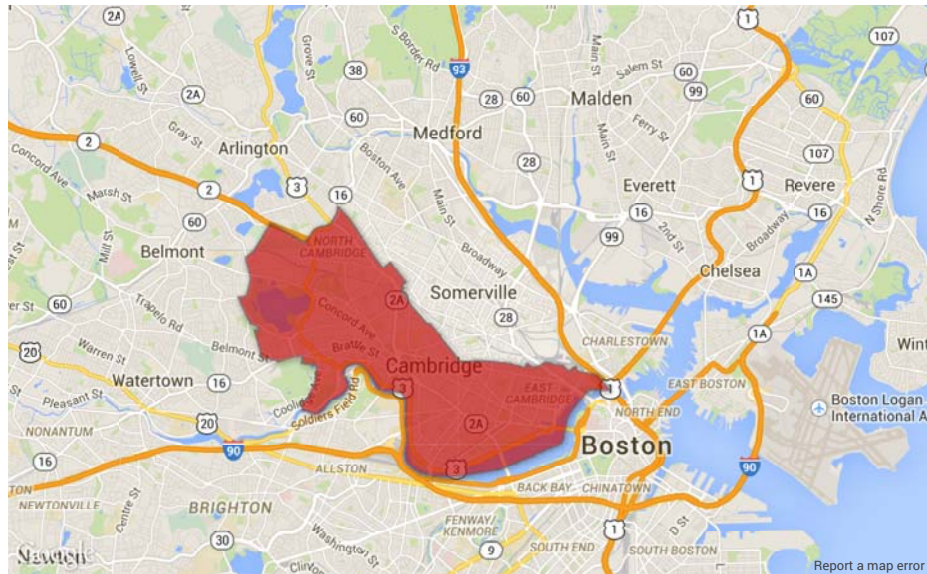
COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
Suffolk	Piping Plover	Threatened	Coastal Beaches	Winthrop
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster

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

The Natural Heritage & Endangered Species Program maintains a list of all documented MESA-listed species observations in the Commonwealth. Please select a town if you would like to see a table showing which listed species have been observed in that town. The selected town will also be highlighted on the map. Alternatively you can specify either the Common Name or Scientific Name of a species to see its distribution on the map and table showing the towns it has been observed in. Clicking on a column header in the table will sort the column. Clicking again on the same column heading will reverse the sort order.

The Town List and Species Viewer will be updated at regular intervals as new data is accepted and entered into the NHESP database.

Town:  or Species (Common Name):  or Species (Scientific Name):



Showing 1 to 25 of 25 entries

Search:

First Previous 1 Next Last					
Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Most Recent Obs
CAMBRIDGE	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC	1917
CAMBRIDGE	Bird	Ammodramus henslowii	Henslow's Sparrow	E	1871
CAMBRIDGE	Bird	Botaurus lentiginosus	American Bittern	E	1906
CAMBRIDGE	Vascular Plant	Carex gracilescens	Slender Woodland Sedge	E	1891
CAMBRIDGE	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC	1932
CAMBRIDGE	Bird	Cistothorus platensis	Sedge Wren	E	1840
CAMBRIDGE	Vascular Plant	Cyperus engelmannii	Engelmann's Umbrella-sedge	T	2008
CAMBRIDGE	Butterfly/Moth	Eacles imperialis	Imperial Moth	T	Historic
CAMBRIDGE	Bird	Falco peregrinus	Peregrine Falcon	E	2013
CAMBRIDGE	Bird	Gallinula chloropus	Common Moorhen	SC	1890
CAMBRIDGE	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E	2013
CAMBRIDGE	Reptile	Glyptemys insculpta	Wood Turtle	SC	Historic
CAMBRIDGE	Vascular Plant	Isoetes lacustris	Lake Quillwort	E	Historic
CAMBRIDGE	Bird	Ixobrychus exilis	Least Bittern	E	1890
CAMBRIDGE	Mussel	Ligumia nasuta	Eastern Pondmussel	SC	1940
CAMBRIDGE	Segmented Worm	Macrobdeella sestertia	New England Medicinal Leech	SC	Historic
CAMBRIDGE	Fish	Notropis bifrenatus	Bridle Shiner	SC	1928
CAMBRIDGE	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T	Historic
CAMBRIDGE	Vascular Plant	Potamogeton friesii	Fries' Pondweed	E	1880
CAMBRIDGE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T	1892
CAMBRIDGE	Vascular Plant	Scirpus longii	Long's Bulrush	T	1913
CAMBRIDGE	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC	1912
CAMBRIDGE	Reptile	Terrapene carolina	Eastern Box Turtle	SC	1892
CAMBRIDGE	Bird	Tyto alba	Barn Owl	SC	Historic
CAMBRIDGE	Vascular Plant	Viola brittoniana	Britton's Violet	T	1843

Show  entries

Hide Additional Info

## Status

• E = Endangered • T = Threatened • SC = Special Concern

**Most Recent Observation**

This field represents the most recent observation of that species in a town. However, because they are rare, many MESA-listed species are difficult to detect even when they are present. Natural Heritage does not have the resources to be able to conduct methodical species surveys in each town on a regular basis. Therefore, the fact that the 'Most Recent Observation' recorded for a species may be several years old should not be interpreted as meaning that the species no longer occurs in a town. However, Natural Heritage regards records older than twenty-five years historic.

For more information about a particular species, view the list of [Natural Heritage Fact Sheets](#).



# MassDEP - Bureau of Waste Site Cleanup

## Site Information:

150 CAMBRIDGE PARK DRIVE  
150 CAMBRIDGE PARK DRIVE CAMBRIDGE, MA

### NAD83 UTM Meters:

4695746mN, 323345mE (Zone: 19)  
October 20, 2014

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

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



**MassDEP**

Commonwealth of Massachusetts  
Department of Environmental Protection



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

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

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

Aquifers: Medium Yield, High Yield, EPA Sole Source

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

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

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

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



# United States Department of the Interior



## FISH AND WILDLIFE SERVICE

New England Field Office  
70 Commercial Street, Suite 300  
Concord, NH 03301-5087  
<http://www.fws.gov/newengland>

January 7, 2014

To Whom It May Concern:

This project was reviewed for the presence of federally listed or proposed, threatened or endangered species or critical habitat per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website:

*<http://www.fws.gov/newengland/EndangeredSpec-Consultation.htm>*

Based on information currently available to us, no federally listed or proposed, threatened or endangered species or critical habitat under the jurisdiction of the U.S. Fish and Wildlife Service are known to occur in the project area(s). Preparation of a Biological Assessment or further consultation with us under section 7 of the Endangered Species Act is not required. No further Endangered Species Act coordination is necessary for a period of one year from the date of this letter, unless additional information on listed or proposed species becomes available.

Thank you for your cooperation. Please contact Maria Tur of this office at 603-223-2541 if we can be of further assistance.

Sincerely yours,

Thomas R. Chapman  
Supervisor  
New England Field Office

## **APPENDIX D**

### **National Register of Historic Places and Massachusetts Historical Commission Documentation**



# Massachusetts Historical Commission

William Francis Galvin, Secretary of the Commonwealth

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[MHC Home](#)

## Massachusetts Cultural Resource Information System **MACRIS**

*Scanned forms and photos now available for selected towns!*

The Massachusetts Cultural Resource Information System (MACRIS) allows you to search the Massachusetts Historical Commission database for information on historic properties and areas in the Commonwealth.

Users of the database should keep in mind that it does not include information on all historic properties and areas in Massachusetts, nor does it reflect all the information on file on historic properties and areas at the Massachusetts Historical Commission.

[Click here to begin your search of the MACRIS database.](#)



[Home](#) | [Search](#) | [Index](#) | [Feedback](#) | [Contact](#)

# Massachusetts Cultural Resource Information System

## MACRIS

### MACRIS Search Results

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

Inv. No.	Property Name	Street	Town	Year
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# Massachusetts Cultural Resource Information System

## MACRIS

### MACRIS Search Results

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

Inv. No.	Property Name	Street	Town	Year
CAM.101	Kingsley, Chester House	10 Chester St	Cambridge	1866
CAM.910	Fitchburg Railroad Signal Bridge	Fitchburg Railroad	Cambridge	c 1930
CAM.1383	Chadwick, Samuel E. House	10 Hollis St	Cambridge	1853
CAM.245	Henderson Carriage Repository	2067-2089 Massachusetts Ave	Cambridge	1892
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.301		59 Rice St	Cambridge	1847
CAM.306	Soule, Lawrence Porter House	11 Russell St	Cambridge	1879

National Register of Historic Places  
National Register Documentation on Listed Properties  
Note: Not all National Register properties have been digitized yet

Reference Number	State	City	Resource Name	Address	Listed Date
79000354	MASSACHUSETTS	Cambridge	Abbot, Edwin, House	1 Follen St.	19790510
82001883	MASSACHUSETTS	Cambridge	Aborn, John, House	41 Orchard St.	19820413
04000249	MASSACHUSETTS	Cambridge	Alewife Brook Parkway	Alewife Brook Parkway	20040318
82001908	MASSACHUSETTS	Cambridge	Almshouse	41 Orchard St.	19820413
82001906	MASSACHUSETTS	Cambridge	American Net and Twine Company Factory	155 2nd St.	19820401
82001916	MASSACHUSETTS	Cambridge	Ash Street Historic District	Ash St. and Ash St. Place between Brattle and Mount Auburn Sts.	19820413
82001917	MASSACHUSETTS	Cambridge	Athenaeum Press	215 1st St.	19820413
83000781	MASSACHUSETTS	Cambridge	Atwood, Ephraim, House	110 Hancock St.	19830630
72000128	MASSACHUSETTS	Cambridge	Austin Hall	Harvard University campus	19720419
83000782	MASSACHUSETTS	Cambridge	Avon Hill Historic District	Washington and Walnut Aves. and Agassiz, Humboldt, Arlington and Lancaster Sts.	19830630
82001918	MASSACHUSETTS	Cambridge	B and B Chemical Company	780 Memorial Dr.	19820413
76000272	MASSACHUSETTS	Cambridge	Baldwin, Maria, House	196 Prospect St.	19760511
82001919	MASSACHUSETTS	Cambridge	Barnes, James B., House	200 Monsignor O'Brien Hwy.	19820413
96000520	MASSACHUSETTS	Cambridge	Beck--Warren House	1 Prescott St.	19960520
86001272	MASSACHUSETTS	Cambridge	Bennink--Douglas Cottages	35--51 Walker St.	19860519
82001920	MASSACHUSETTS	Cambridge	Berkeley Street Historic District	Berkeley St.	19820413
86001265	MASSACHUSETTS	Cambridge	Berkeley Street Historic District (Boundary Increase)	1--8 Berkeley Pl.	19860519
86001270	MASSACHUSETTS	Cambridge	Bertram Hall at Radcliffe College	53 Shepard St.	19860519
82001921	MASSACHUSETTS	Cambridge	Beth Israel Synagogue	238 Columbia St.	19820413
82001922	MASSACHUSETTS	Cambridge	Bigelow Street Historic District	Bigelow St.	19820413
82001923	MASSACHUSETTS	Cambridge	Billings, Frederick, House	45 Orchard St.	19820413
75000295	MASSACHUSETTS	Cambridge	Birkhoff, George D., House	22 Craigie	19750515
97000561	MASSACHUSETTS	Cambridge	Blake and Knowles Steam Pump Company National Register District	Bounded by Third, Binney, Fifth, and Rogers Sts.	19970613
82001924	MASSACHUSETTS	Cambridge	Bottle House Block	204-214 3rd St.	19820413
86001276	MASSACHUSETTS	Cambridge	Brabrook, E. H., House	42--44 Avon St.	19860519
83000784	MASSACHUSETTS	Cambridge	Bradbury, William F., House	369 Harvard St.	19830630
82001925	MASSACHUSETTS	Cambridge	Brattle Hall	40 Brattle St.	19820413
73000286	MASSACHUSETTS	Cambridge	Brattle, William, House	42 Brattle St.	19730508
75000298	MASSACHUSETTS	Cambridge	Bridgman, Percy, House	10 Buckingham Pl.	19750515
86002068	MASSACHUSETTS	Cambridge	Brooks, Luther, House	34 Kirkland St.	19860912
82001926	MASSACHUSETTS	Cambridge	Building at 10 Follen Street	10 Follen St.	19820413
83000790	MASSACHUSETTS	Cambridge	Building at 102-104 Inman Street	102-104 Inman St.	19830630
83000789	MASSACHUSETTS	Cambridge	Building at 104-106 Hancock Street	104-106 Hancock St.	19830630
82001927	MASSACHUSETTS	Cambridge	Building at 106-108 Inman St	106-108 Inman St.	19820413
83000787	MASSACHUSETTS	Cambridge	Building at 1707-1709 Cambridge Street	1707-1709 Cambridge St.	19830630
83000788	MASSACHUSETTS	Cambridge	Building at 1715-1717 Cambridge Street	1715-1717 Cambridge St.	19830630
83000786	MASSACHUSETTS	Cambridge	Building at 259 Mount Auburn Street	259 Mt. Auburn St.	19830630
82001928	MASSACHUSETTS	Cambridge	Building at 42 Edward J. Lopez Avenue	42 Edward J. Lopez Ave.	19820413
82001929	MASSACHUSETTS	Cambridge	Buildings at 110-112 Inman St.	110-112 Inman St.	19820413
82001930	MASSACHUSETTS	Cambridge	Buildings at 15-17 Lee St.	15-17 Lee St.	19820413
83004293	MASSACHUSETTS	Cambridge	Cambridge Common Historic District Amendment	Massachusetts Ave. and Garden, Waterhouse, Cambridge, and Peabody Sts.	19830630
73000281	MASSACHUSETTS	Cambridge	Cambridge Common Historic District	Garden, Waterhouse, Cambridge, and Peabody Sts., and Massachusetts Ave.	19730413
87000499	MASSACHUSETTS	Cambridge	Cambridge Common Historic District (Boundary Increase and Decrease)	Roughly NW of Waterhouse St. on Concord Ave. between Garden and Follen Sts.	19870126
02001189	MASSACHUSETTS	Cambridge	Cambridge Home for the Aged and Infirm	650 Concord Ave.	20021022
82001931	MASSACHUSETTS	Cambridge	Cambridge Public Library	449 Broadway St.	19820413
78000435	MASSACHUSETTS	Cambridge	Carpenter Center for the Visual Arts	19 Prescott St.	19780420
90000128	MASSACHUSETTS	Cambridge	Central Square Historic District	Roughly Massachusetts Ave. from Clinton St. to Main St.	19900302
78000436	MASSACHUSETTS	Cambridge	Charles River Basin Historic District	Both banks of Charles River from Eliot Bridge to Charles River Dam	19781222
83000791	MASSACHUSETTS	Cambridge	Child, Francis J., House	67 Kirkland St.	19830630
66000140	MASSACHUSETTS	Cambridge	Christ Church	Garden St.	19661015
83000792	MASSACHUSETTS	Cambridge	Church of the New Jerusalem	50 Quincy St.	19830630
82001932	MASSACHUSETTS	Cambridge	City Hall Historic District	Massachusetts Ave., Bigelow and Temple Sts, Inman and Richard Allen Dr.	19820413
83000793	MASSACHUSETTS	Cambridge	Cloverden	29 Fallen St.	19830630
82004968	MASSACHUSETTS	Cambridge	Colburn, Sarah Foster, House	7 Dana St.	
82001933	MASSACHUSETTS	Cambridge	Conventual Church of St. Mary and St. John	980 Memorial Dr.	19820413
82001934	MASSACHUSETTS	Cambridge	Cook, William, House	71 Appleton St.	19820413

National Register of Historic Places  
National Register Documentation on Listed Properties  
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Reference Number	State	City	Resource Name	Address	Listed Date
83000795	MASSACHUSETTS	Cambridge	Coolidge, Josiah, House	24 Coolidge Hill Rd.	19830630
72000124	MASSACHUSETTS	Cambridge	Cooper-Frost-Austin House	21 Linnaean St.	19720922
86001575	MASSACHUSETTS	Cambridge	Craigie Arms	2--6 University Rd., 122 Mt. Auburn, and 6 Bennett Sts.	19860710
83000796	MASSACHUSETTS	Cambridge	cummings, e.e., House	104 Irving St.	19830630
76000305	MASSACHUSETTS	Cambridge	Daly, Reginald A., House	23 Hawthorn St.	19760107
86001682	MASSACHUSETTS	Cambridge	Dana--Palmer House	12--16 Quincy St.	19860519
76000306	MASSACHUSETTS	Cambridge	Davis, William Morris, House	17 Francis St.	19760107
82001935	MASSACHUSETTS	Cambridge	Day, Anna, House	139 Cushing St.	19820413
82001936	MASSACHUSETTS	Cambridge	Deane-Williams House	21-23 Fayette St.	19820413
90000142	MASSACHUSETTS	Cambridge	DeRosay--McNamee House	50 Mt. Vernon St.	19900302
86002071	MASSACHUSETTS	Cambridge	Divinity Hall	12 Divinity Ave.	19860912
82001937	MASSACHUSETTS	Cambridge	Dodge, Edward, House	70 Sparks St.	19820413
86001279	MASSACHUSETTS	Cambridge	Dunvegan, The	1654 Massachusetts Ave.	19860519
83000797	MASSACHUSETTS	Cambridge	East Cambridge Historic District	Roughly bounded by Cambridge, Hurley and 5th Sts.	19830630
82001938	MASSACHUSETTS	Cambridge	East Cambridge Savings Bank	292 Cambridge St.	19820413
86001280	MASSACHUSETTS	Cambridge	Eliot Hall at Radcliffe College	51 Shepard St.	19860519
83000798	MASSACHUSETTS	Cambridge	Ellis, Asa, House	158 Auburn St.	19830630
66000364	MASSACHUSETTS	Cambridge	Elmwood	33 Elmwood Ave.	19661015
82001939	MASSACHUSETTS	Cambridge	Farwell, R.H., House	2222-2224 Massachusetts Ave.	19820413
83000799	MASSACHUSETTS	Cambridge	Fay, Issac, House	123 Antrim St.	19830630
75000249	MASSACHUSETTS	Cambridge	First Baptist Church	Magazine and River Sts.	19750414
83000800	MASSACHUSETTS	Cambridge	Flentje, Ernst, House	129 Magazine St.	19830630
86001282	MASSACHUSETTS	Cambridge	Fogg Art Museum	26--32 Quincy St.	19860519
86001681	MASSACHUSETTS	Cambridge	Follen Street Historic District	1--44 and 5--29 Follen St.	19860519
73000284	MASSACHUSETTS	Cambridge	Fort Washington	95 Waverly St.	19730403
82001940	MASSACHUSETTS	Cambridge	Fresh Pond Hotel	234 Lakeview Ave.	19820413
04001429	MASSACHUSETTS	Cambridge	Fresh Pond Parkway--Metropolitan Park System of Greater Boston	Fresh Pond Parkway	20050105
83000801	MASSACHUSETTS	Cambridge	Frost, David, House	26 Gray St.	19830630
83000802	MASSACHUSETTS	Cambridge	Frost, Elizabeth, Tenanthouse	35 Bowdoin St.	19830630
82001941	MASSACHUSETTS	Cambridge	Frost, Robert, House	29-35 Brewster St.	19820413
82001942	MASSACHUSETTS	Cambridge	Frost, Walter, House	10 Frost St.	19820413
71000686	MASSACHUSETTS	Cambridge	Fuller, Margaret, House	71 Cherry St.	19710702
87002543	MASSACHUSETTS	Cambridge	Gale, George, House	14--16 Clinton St.	19880210
83000803	MASSACHUSETTS	Cambridge	Garfield Street Historic District	Garfield St. between Massachusetts Ave. and Oxford St.	19830630
86001283	MASSACHUSETTS	Cambridge	Gray Gardens East and West Historic District	1--37 Gray Gardens E, 3--24 Gray Gardens W, 91 Garden and 60 Raymond Sts.	19860519
66000655	MASSACHUSETTS	Cambridge	Gray, Asa, House	88 Garden St.	19661015
82001943	MASSACHUSETTS	Cambridge	Greek Revival Cottage	59 Rice St.	19820413
83000806	MASSACHUSETTS	Cambridge	Hall Tavern	20 Gray Gardens West St.	19830630
86001284	MASSACHUSETTS	Cambridge	Hapgood, Richard, House	382--392 Harvard St.	19860519
86002073	MASSACHUSETTS	Cambridge	Harvard Houses Historic District	Roughly bounded by Mt. Auburn & Grant & Cowperwaite Sts., Banks St. & Putman Ave., the Memorial River, & Boyleston :	19860912
78000440	MASSACHUSETTS	Cambridge	Harvard Lampoon Building	44 Bow St.	19780330
82001944	MASSACHUSETTS	Cambridge	Harvard Square Historic District	Massachusetts Ave., Boylston and Brattle Sts.	19820413
86003654	MASSACHUSETTS	Cambridge	Harvard Square Historic District (Boundary Increase)	Roughly bounded by Harvard & Massachusetts Aves., Mt. Auburn, Winthrop, Bennett, Story & Church Sts.	19880728
78000441	MASSACHUSETTS	Cambridge	Harvard Square Subway Kiosk	Massachusetts Ave. and Boylston St.	19780130
82001945	MASSACHUSETTS	Cambridge	Harvard Street Historic District	Harvard St. Between Ellery and Hancock Sts.	19820413
87000500	MASSACHUSETTS	Cambridge	Harvard Union	Quincy and Harvard Sts.	19870126
87002137	MASSACHUSETTS	Cambridge	Harvard Yard Historic District	Roughly bounded by underpass, Broadway & Quincy Sts., Massachusetts Ave., & Peabody St.	19871214
82001946	MASSACHUSETTS	Cambridge	Hastings Square Historic District	Roughly bounded by Rockingham, Henry, Chestnut and Brookline Sts.	19820413
70000681	MASSACHUSETTS	Cambridge	Hastings, Oliver, House	101 Brattle St.	19701230
78000442	MASSACHUSETTS	Cambridge	Hasty Pudding Club	12 Holyoke St.	19780109
82001947	MASSACHUSETTS	Cambridge	Henderson Carriage Repository	2067-2089 Massachusetts Ave.	19820413
82001948	MASSACHUSETTS	Cambridge	Higginson, Col. Thomas Wentworth, House	29 Buckingham St.	19820413
83000807	MASSACHUSETTS	Cambridge	Hill, Aaron, House	17 Brown St.	19830630
83000808	MASSACHUSETTS	Cambridge	Holmes, Joseph, House	144 Coolidge Hill St.	19830630
83004030	MASSACHUSETTS	Cambridge	Homer-Lovell House	11 Forest St.	19831222
83000809	MASSACHUSETTS	Cambridge	Hooper-Eliot House	25 Reservoir Rd.	19830630
79000355	MASSACHUSETTS	Cambridge	Hooper-Lee Nichols House	159 Brattle St.	19790615

National Register of Historic Places  
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Reference Number	State	City	Resource Name	Address	Listed Date
83000811	MASSACHUSETTS	Cambridge	Howe House	6 Appleton St.	19830630
82001949	MASSACHUSETTS	Cambridge	Howells, William Dean, House	37 Concord Ave.	
82001953	MASSACHUSETTS	Cambridge	Hoyt, Benjamin, House	134 Otis St.	19820413
82001950	MASSACHUSETTS	Cambridge	Hubbard Park Historic District	Hubbard Park, Mercer Circle and Sparks Sts.	19820413
82001951	MASSACHUSETTS	Cambridge	Inman Square Historic District	Hampshire, Cambridge, and Inman Sts.	19820413
86001308	MASSACHUSETTS	Cambridge	Jarvis, The	27 Everett St.	19860519
83000813	MASSACHUSETTS	Cambridge	Jones, William R., House	307 Harvard St.	19830630
89002285	MASSACHUSETTS	Cambridge	Kennedy, F. A., Steam Bakery	129 Franklin St.	19900104
82001952	MASSACHUSETTS	Cambridge	Kidder-Sargent-McCrehan House	146 Rindge Ave.	19820413
82001954	MASSACHUSETTS	Cambridge	Kingsley, Chester, House	10 Chester St.	19820413
86001683	MASSACHUSETTS	Cambridge	Kirkland Place Historic District	Kirkland Pl.	19860519
82001955	MASSACHUSETTS	Cambridge	Lamson, Rufus, House	72-74 Hampshire St.	19820413
82001956	MASSACHUSETTS	Cambridge	Larches, The	22 Larch Rd.	19820413
82001957	MASSACHUSETTS	Cambridge	Lechmere Point Corporation Houses	45-51 Gore St. and 25 3rd St.	19820413
76001970	MASSACHUSETTS	Cambridge	Little, Arthur D., Inc., Building	Memorial Dr.	1982041319761208
86002070	MASSACHUSETTS	Cambridge	Littlefield--Roberts House	16 Prescott St.	19860912
66000049	MASSACHUSETTS	Cambridge	Longfellow National Historic Site	105 Brattle St.	19661015
83000814	MASSACHUSETTS	Cambridge	Lovell Block	1853 Massachusetts Ave.	19830630
86002076	MASSACHUSETTS	Cambridge	Lovering, Joseph, House	38 Kirkland St.	19860912
82001958	MASSACHUSETTS	Cambridge	Lowell School	25 Lowell St.	19820413
83000815	MASSACHUSETTS	Cambridge	Lowell, The	33 Lexington Ave.	19830630
83000816	MASSACHUSETTS	Cambridge	Maple Avenue Historic District	Maple Ave. between Marie Ave. and Broadway	19830630
82001959	MASSACHUSETTS	Cambridge	Mason, Josiah, Jr., House	11 Market St.	19820413
83000817	MASSACHUSETTS	Cambridge	Mason, W. A., House	87 Raymond St.	19830630
66000769	MASSACHUSETTS	Cambridge	Massachusetts Hall, Harvard University	Harvard University Yard	19661015
82001960	MASSACHUSETTS	Cambridge	McLean, Isaac, House	2218 Massachusetts Ave.	19820413
82001961	MASSACHUSETTS	Cambridge	Mead, Alpheus, House	2200 Massachusetts Ave.	19820413
82001962	MASSACHUSETTS	Cambridge	Melvin, Isaac, House	19 Centre St.	19820413
86001310	MASSACHUSETTS	Cambridge	Memorial Drive Apartments Historic District	983--984, 985--986, 987--989, and 992--993 Memorial Dr.	19860519
70000685	MASSACHUSETTS	Cambridge	Memorial Hall, Harvard University	Cambridge and Quincy Sts., Harvard University campus	
86001311	MASSACHUSETTS	Cambridge	Montrose, The	1648 Massachusetts Ave.	19860519
75000254	MASSACHUSETTS	Cambridge	Mount Auburn Cemetery	580 Mount Auburn St.	19750421
83000818	MASSACHUSETTS	Cambridge	Mount Auburn Cemetery Reception House	583 Mt. Auburn St.	19830630
05001209	MASSACHUSETTS	Cambridge	New England Confectionery Company Factory	250 Massachusetts Ave.	20051109
82001963	MASSACHUSETTS	Cambridge	Newman, Andrew, House	23 Fairmont St.	
82001964	MASSACHUSETTS	Cambridge	Norfolk Street Historic District	Norfolk St. between Suffolk and Austin Sts.	19820413
83000819	MASSACHUSETTS	Cambridge	North Avenue Congregational Church	183 Massachusetts Ave.	19830630
82001965	MASSACHUSETTS	Cambridge	Noyes, J.A., House	1 Highland St.	1970123019820413
82001967	MASSACHUSETTS	Cambridge	Odd Fellows Hall	536 Massachusetts Ave.	19820413
82001968	MASSACHUSETTS	Cambridge	Old Cambridge Baptist Church	398 Harvard St.	19820413
83000821	MASSACHUSETTS	Cambridge	Old Cambridge Historic District	Irregular pattern along Brattle St.	19830630
83000820	MASSACHUSETTS	Cambridge	Old Cambridgport Historic District	Cherry, Harvard and Washington Sts.	
73000287	MASSACHUSETTS	Cambridge	Old Harvard Yard	Massachusetts Ave. and Cambridge St.	19730206
82001969	MASSACHUSETTS	Cambridge	Opposition House	2-4 Hancock Pl.	19820413
83000822	MASSACHUSETTS	Cambridge	Orne, Sarah, House	10 Coolidge Hill Rd.	19830630
86001312	MASSACHUSETTS	Cambridge	Peabody Court Apartments	41--43 Linnaean St.	
83000824	MASSACHUSETTS	Cambridge	Porcellian Club	1320-24 Massachusetts Ave.	19830630
73000288	MASSACHUSETTS	Cambridge	Pratt, Dexter, House	54 Brattle St.	19730508
82001970	MASSACHUSETTS	Cambridge	Prospect Congregational Church	99 Prospect St.	19820413
82001971	MASSACHUSETTS	Cambridge	Read, Cheney, House	135 Western Ave.	19820413
82001972	MASSACHUSETTS	Cambridge	Reardon, Edmund, House	195 Erie St.	
85002663	MASSACHUSETTS	Cambridge	Reversible Collar Company Building	25--27 Mt. Auburn & 10--12 Arrow Sts.	1983063019850927
76001999	MASSACHUSETTS	Cambridge	Richards, Theodore W., House	15 Follen St.	19760107
82001973	MASSACHUSETTS	Cambridge	River Street Firehouse	176 River St.	19820413
82001974	MASSACHUSETTS	Cambridge	Sacred Heart Church, Rectory, School and Convent	6th and Thorndike Sts.	19820413
82001975	MASSACHUSETTS	Cambridge	Salem-Auburn Streets Historic District	Salem and Auburn Sts.	19820413
76000238	MASSACHUSETTS	Cambridge	Sands, Hiram, House	22 Putnam Ave.	19760430

National Register of Historic Places  
National Register Documentation on Listed Properties  
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Reference Number	State	City	Resource Name	Address	Listed Date
82001976	MASSACHUSETTS	Cambridge	Sands, Ivory, House	145 Elm St.	19820413
83000825	MASSACHUSETTS	Cambridge	Saunders, William, House	6 Prentiss St.	19830630
86002075	MASSACHUSETTS	Cambridge	Sears Tower--Harvard Observatory	60 Garden St.	19870226
83000826	MASSACHUSETTS	Cambridge	Second Cambridge Savings Bank Building	11-21 Dunster St.	19830630
83000827	MASSACHUSETTS	Cambridge	Second Waterhouse House	9 Follen St.	19830630
70000732	MASSACHUSETTS	Cambridge	Sever Hall, Harvard University	Harvard Yard	19701230
86001680	MASSACHUSETTS	Cambridge	Shady Hill Historic District	Roughly bounded by Museum, Beacon and Holden, and Kirkland Sts., and Francis Ave.	19860519
94000546	MASSACHUSETTS	Cambridge	Shell Oil Company "Spectacular" Sign	187 Magazine St.	19940603
82001977	MASSACHUSETTS	Cambridge	Slowey, Patrick, House	73 Bolton St.	19820413
82001978	MASSACHUSETTS	Cambridge	Soule, Lawrence, House	11 Russell St.	19820413
83000828	MASSACHUSETTS	Cambridge	St. James Episcopal Church	1991 Massachusetts Ave.	19830630
83000829	MASSACHUSETTS	Cambridge	St. John's Roman Catholic Church	2270 Massachusetts Ave.	19830630
86001313	MASSACHUSETTS	Cambridge	Stanstead, The	19 Ware St.	19860519
86001315	MASSACHUSETTS	Cambridge	Stickney--Shepard House	11--13 Remington St.	19860519
89001246	MASSACHUSETTS	Cambridge	Stoughton, Mary Fisk, House	90 Brattle St.	
82001979	MASSACHUSETTS	Cambridge	Taylor Square Firehouse	113 Garden St.	19820413
86002078	MASSACHUSETTS	Cambridge	Treadwell--Sparks House	21 Kirkland St.	19860912
82001980	MASSACHUSETTS	Cambridge	Union Railway Car Barn	613-621 Cambridge St.	19820413
70000736	MASSACHUSETTS	Cambridge	University Hall, Harvard University	Harvard Yard	19701230
86002081	MASSACHUSETTS	Cambridge	University Museum	11--25 Divinity Ave.	19860912
82001981	MASSACHUSETTS	Cambridge	Upper Magazine Street Historic District	Cottage, Magazine, William and Perry Sts.	19820413
83000831	MASSACHUSETTS	Cambridge	Urban Rowhouse	26-32 River St.	19830630
82001982	MASSACHUSETTS	Cambridge	Urban Rowhouse	40-48 Pearl St.	19820413
82001983	MASSACHUSETTS	Cambridge	Urban Rowhouse	30-38 Pearl St.	19820413
86001343	MASSACHUSETTS	Cambridge	US Post Office--Central Square	770 Massachusetts Ave.	19860618
83000832	MASSACHUSETTS	Cambridge	Valentine Soap Workers Cottage	5-7 Cottage St.	19830630
83000833	MASSACHUSETTS	Cambridge	Valentine Soap Workers Cottage	101 Pearl St.	19830630
83000834	MASSACHUSETTS	Cambridge	Vinal, Albert, House	325 Harvard St.	19830630
94000554	MASSACHUSETTS	Cambridge	Walden Street Cattle Pass	Adjacent to MBTA right-of-way at Walden St.	19890629
83000835	MASSACHUSETTS	Cambridge	Ware Hall	383 Harvard St.	19830630
86001317	MASSACHUSETTS	Cambridge	Warren, Langford H., House	6 Garden Terr.	19860519
82001984	MASSACHUSETTS	Cambridge	Watson, Abraham, House	181-183 Sherman St.	
82001985	MASSACHUSETTS	Cambridge	Willis, Stillman, House	1 Potter Park	19820413
82001986	MASSACHUSETTS	Cambridge	Winter Street Historic District	Winter St.	19820413
86001318	MASSACHUSETTS	Cambridge	Withey, S. B., House	10 Appian Way	19860519
86001319	MASSACHUSETTS	Cambridge	Wood, J. A., House	3 Sacramento St.	19860519
82001987	MASSACHUSETTS	Cambridge	Wyeth Brickyard Superintendent's House	336 Rindge Ave.	19820413
82001988	MASSACHUSETTS	Cambridge	Wyeth, John, House	56 Aberdeen Ave.	19820413
82001989	MASSACHUSETTS	Cambridge	Wyeth-Smith House	152 Vassal Lane	19820413

19820413



## **APPENDIX E**

### **Copy of City of Cambridge Dewatering Permit Application**



## PERMIT TO DEWATER

Location:

Temporary

Owner:

Permanent

Contractor:

The property owner, \_\_\_\_\_ agrees to hold harmless and indemnify the City of Cambridge for any liability on the part of the City directly or indirectly arising out of the dewatering operation.

The issuance of this permit is based in part in the submission packet of the applicant with documentation as follows:

In addition, the application has been reviewed by the City under third party agreement as documented in the following reports:

All activities conducted in conjunction with the issuance of this permit must be in accordance with the provisions of the aforementioned reports. Any deviations in conditions must be reported to and approved by the Commissioner of Public Works.

This permit is in addition to any other street permit issued by the Department in connection with any street excavation or obstruction; and all conditions as specified in the Discharge Permit for Dewatering.

For the entire period of time the groundwater is being discharged to a storm drain, the property owner shall provide copies of each Discharge Monitoring Report Form submitted to the EPA, pursuant to the owner's discharge permit.

If in the future the EPA requires the City of Cambridge to bring existing stormwater drainage into compliance with EPA quality standards, as a condition to the continuation of discharge of that stormwater (also including groundwater) into an EPA regulated system into which the \_\_\_\_\_ (property owner) drains, the owner will agree to maintain its water discharge with such EPA water quality standards.

The property owner and contractor shall at all times meet the conditions specified in the requisite legal agreement/affidavits.

All groundwater pumped from the work shall be disposed of without damage to pavements, other surfaces or property.

Where material or debris has washed or flowed into or has been placed in existing gutters, drains, pipes or structures, such material or debris shall be entirely removed and satisfactorily disposed of by the

Contractor during the progress of work as directed by the Public Works Department.

Any flooding or damage of property and possessions caused by siltation of existing gutters, pipes or structures shall be the responsibility of the Contractor.

Provisions shall be made to insure that no material, water or solid, will freeze on any pavement or in any location which will cause inconvenience or hazard to the general public.

Upon completion of the work, existing gutters, drains, pipes and structures shall be (bucket) cleaned and material disposed of satisfactorily prior to release by the Public Works Department.

Any permit issued by the City of Cambridge shall be revoked upon transfer of any ownership interest unless and until subsequent owner(s) or parties of interest agree to the foregoing terms.

This permit shall remain in effect for one year and shall be renewable thereafter at the agreement of the parties.

The following special conditions as set forth below are part of the permit.

_____ City Manager	<u>Shirley Banks Robinson</u> Property Manager: Corporate Entity President, General Partner or Trustee Trustee with Instrument of Authority <u>1-5-2015</u> _____ Date	<b>Shirley Banks Robinson</b> <b>Assistant Vice President</b>
_____ Date	<u>Thomas J. Henry</u> Contractor <u>1/5/2015</u> _____ Date	
_____ City Solicitor		
_____ Date		
_____ Commissioner of Public	_____ Contractor	
_____ Date	_____ Date	

CC:   Engineering  
          Supervisor of Sewer Maintenance and Engineering  
          Superintendent of Streets  
          Commissioner of Inspectional Services

## **APPENDIX F**

### **Laboratory Data Reports**



## ANALYTICAL REPORT

Lab Number:	L1400799
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Todd Butler
Phone:	(617) 886-7424
Project Name:	130 CAMBRIDGE PARK DRIVE
Project Number:	35060-300
Report Date:	01/10/14

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), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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





**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1400799-01	HA-7 (OW)	Not Specified	01/06/14 11:45
L1400799-02	TRIP BLANKS	Not Specified	01/06/14 00:00

**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

### 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 all of the requirements of NELAC, for all NELAC accredited parameters. 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. 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. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated 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.

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 table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

Please see the associated ADEx data file for a comparison of laboratory reporting limits that were achieved with the regulatory Numerical Standards requested on the Chain of Custody.

#### 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 Client Service Representative 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 Client Services at 800-624-9220 with any questions.

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**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

### Case Narrative (continued)

#### Total Metals

The WG663230-4 MS recovery for iron (30%), performed on L1400799-01 (HA-7 (OW)), does not apply because the sample concentration is greater than four times the spike amount added.

The WG663223-4 MS recovery, performed on L1400799-01 (HA-7 (OW)), is below the acceptance criteria for zinc (48%). A post digestion spike was performed with an acceptable recovery of 108%.

The WG663223-3 Laboratory Duplicate RPD, performed on L1400799-01, is outside the acceptance criteria for nickel (31%) and zinc (185%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

#### Dissolved Metals

The WG663478-4 MS recovery, performed on L1400799-01 (HA-7 (OW)), is below the acceptance criteria for antimony (71%). A post digestion spike was performed with an acceptable recovery of 108%.

The WG663478-4 MS recovery, performed on L1400799-01 (HA-7 (OW)), is below the acceptance criteria for silver (71%). A post digestion spike was performed with an unacceptable recovery of 62%. This has been attributed to sample matrix.

The WG663479-4 MS recovery, performed on L1400799-01 (HA-7 (OW)), is below the acceptance criteria for iron (70%). A post digestion spike was performed with an acceptable recovery of 80%.

The WG663478-3 Laboratory Duplicate RPD, performed on L1400799-01, is outside the acceptance criteria for selenium (42%). The elevated RPD has been attributed to the non-homogeneous nature of the sample utilized for the laboratory duplicate.

#### Solids, Total Suspended

L1400799-01 has an elevated detection limit due to limited sample volume available for analysis.

#### TPH

WG663282: A matrix spike could not be performed due to insufficient sample volume available for analysis.

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.

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative

Date: 01/10/14

# ORGANICS

# **VOLATILES**



**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

**Lab ID:** L1400799-01  
**Client ID:** HA-7 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 01/09/14 10:43  
**Analyst:** MM

**Date Collected:** 01/06/14 11:45  
**Date Received:** 01/06/14  
**Field Prep:** See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-01

Date Collected: 01/06/14 11:45

Client ID: HA-7 (OW)

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-01

Date Collected: 01/06/14 11:45

Client ID: HA-7 (OW)

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	105		70-130

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-01  
Client ID: HA-7 (OW)  
Sample Location: Not Specified  
Matrix: Water  
Analytical Method: 1,8260C-SIM(M)  
Analytical Date: 01/09/14 10:43  
Analyst: MM

Date Collected: 01/06/14 11:45  
Date Received: 01/06/14  
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS-SIM - Westborough Lab						
--	--	--	--	--	--	--

1,4-Dioxane	ND		ug/l	3.0	--	1
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**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-01

Date Collected: 01/06/14 11:45

Client ID: HA-7 (OW)

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: See Narrative

Matrix: Water

Analytical Method: 14,504.1

Extraction Date: 01/08/14 12:45

Analytical Date: 01/08/14 18:05

Analyst: GP

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



**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

**Lab ID:** L1400799-02  
**Client ID:** TRIP BLANKS  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8260C  
**Analytical Date:** 01/09/14 10:11  
**Analyst:** MM

**Date Collected:** 01/06/14 00:00  
**Date Received:** 01/06/14  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	3.0	--	1
1,1-Dichloroethane	ND		ug/l	0.75	--	1
Chloroform	ND		ug/l	0.75	--	1
Carbon tetrachloride	ND		ug/l	0.50	--	1
1,2-Dichloropropane	ND		ug/l	1.8	--	1
Dibromochloromethane	ND		ug/l	0.50	--	1
1,1,2-Trichloroethane	ND		ug/l	0.75	--	1
Tetrachloroethene	ND		ug/l	0.50	--	1
Chlorobenzene	ND		ug/l	0.50	--	1
Trichlorofluoromethane	ND		ug/l	2.5	--	1
1,2-Dichloroethane	ND		ug/l	0.50	--	1
1,1,1-Trichloroethane	ND		ug/l	0.50	--	1
Bromodichloromethane	ND		ug/l	0.50	--	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	--	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	--	1
1,1-Dichloropropene	ND		ug/l	2.5	--	1
Bromoform	ND		ug/l	2.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Benzene	ND		ug/l	0.50	--	1
Toluene	ND		ug/l	0.75	--	1
Ethylbenzene	ND		ug/l	0.50	--	1
Chloromethane	ND		ug/l	2.5	--	1
Bromomethane	ND		ug/l	1.0	--	1
Vinyl chloride	ND		ug/l	1.0	--	1
Chloroethane	ND		ug/l	1.0	--	1
1,1-Dichloroethene	ND		ug/l	0.50	--	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	--	1
Trichloroethene	ND		ug/l	0.50	--	1
1,2-Dichlorobenzene	ND		ug/l	2.5	--	1
1,3-Dichlorobenzene	ND		ug/l	2.5	--	1
1,4-Dichlorobenzene	ND		ug/l	2.5	--	1

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-02

Date Collected: 01/06/14 00:00

Client ID: TRIP BLANKS

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methyl tert butyl ether	ND		ug/l	1.0	--	1
p/m-Xylene	ND		ug/l	1.0	--	1
o-Xylene	ND		ug/l	1.0	--	1
Xylenes, Total	ND		ug/l	1.0	--	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	--	1
Dibromomethane	ND		ug/l	5.0	--	1
1,4-Dichlorobutane	ND		ug/l	5.0	--	1
1,2,3-Trichloropropane	ND		ug/l	5.0	--	1
Styrene	ND		ug/l	1.0	--	1
Dichlorodifluoromethane	ND		ug/l	5.0	--	1
Acetone	ND		ug/l	5.0	--	1
Carbon disulfide	ND		ug/l	5.0	--	1
2-Butanone	ND		ug/l	5.0	--	1
Vinyl acetate	ND		ug/l	5.0	--	1
4-Methyl-2-pentanone	ND		ug/l	5.0	--	1
2-Hexanone	ND		ug/l	5.0	--	1
Ethyl methacrylate	ND		ug/l	5.0	--	1
Acrylonitrile	ND		ug/l	5.0	--	1
Bromochloromethane	ND		ug/l	2.5	--	1
Tetrahydrofuran	ND		ug/l	5.0	--	1
2,2-Dichloropropane	ND		ug/l	2.5	--	1
1,2-Dibromoethane	ND		ug/l	2.0	--	1
1,3-Dichloropropane	ND		ug/l	2.5	--	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--	1
Bromobenzene	ND		ug/l	2.5	--	1
n-Butylbenzene	ND		ug/l	0.50	--	1
sec-Butylbenzene	ND		ug/l	0.50	--	1
tert-Butylbenzene	ND		ug/l	2.5	--	1
o-Chlorotoluene	ND		ug/l	2.5	--	1
p-Chlorotoluene	ND		ug/l	2.5	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Isopropylbenzene	ND		ug/l	0.50	--	1
p-Isopropyltoluene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	2.5	--	1
n-Propylbenzene	ND		ug/l	0.50	--	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--	1

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-02

Date Collected: 01/06/14 00:00

Client ID: TRIP BLANKS

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--	1
Ethyl ether	ND		ug/l	2.5	--	1
Tert-Butyl Alcohol	ND		ug/l	10	--	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	108		70-130

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-02  
Client ID: TRIP BLANKS  
Sample Location: Not Specified  
Matrix: Water  
Analytical Method: 1,8260C-SIM(M)  
Analytical Date: 01/09/14 10:11  
Analyst: MM

Date Collected: 01/06/14 00:00  
Date Received: 01/06/14  
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Organics by GC/MS-SIM - Westborough Lab						
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1,4-Dioxane	ND		ug/l	3.0	--	1
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**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-02  
Client ID: TRIP BLANKS  
Sample Location: Not Specified  
Matrix: Water  
Analytical Method: 14,504.1  
Analytical Date: 01/08/14 18:21  
Analyst: GP

Date Collected: 01/06/14 00:00  
Date Received: 01/06/14  
Field Prep: Not Specified  
Extraction Date: 01/08/14 12:45

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



**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 14,504.1

Analytical Date: 01/08/14 17:18

Analyst: GP

Extraction Date: 01/08/14 12:45

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01-02 Batch: WG663446-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C-SIM(M)

Analytical Date: 01/09/14 09:39

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-02 Batch: WG663745-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 01/09/14 09:39  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG663747-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C  
 Analytical Date: 01/09/14 09:39  
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG663747-3					
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 01/09/14 09:39

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG663747-3					
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--



**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**Method Blank Analysis**  
**Batch Quality Control**

Analytical Method: 1,8260C

Analytical Date: 01/09/14 09:39

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG663747-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	100		70-130
4-Bromofluorobenzene	99		70-130
Dibromofluoromethane	107		70-130

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 130 CAMBRIDGE PARK DRIVE**Project Number:** 35060-300**Lab Number:** L1400799**Report Date:** 01/10/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 Batch: WG663446-2									
1,2-Dibromoethane	94		-		70-130	-		20	A

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 130 CAMBRIDGE PARK DRIVE**Project Number:** 35060-300**Lab Number:** L1400799**Report Date:** 01/10/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-02 Batch: WG663745-1 WG663745-2								
1,4-Dioxane	117		115		70-130	2		25

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

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: WG663747-1 WG663747-2								
Methylene chloride	108		105		70-130	3		20
1,1-Dichloroethane	100		96		70-130	4		20
Chloroform	100		98		70-130	2		20
Carbon tetrachloride	105		103		63-132	2		20
1,2-Dichloropropane	99		96		70-130	3		20
Dibromochloromethane	100		92		63-130	8		20
1,1,2-Trichloroethane	91		83		70-130	9		20
Tetrachloroethene	100		93		70-130	7		20
Chlorobenzene	97		89		75-130	9		25
Trichlorofluoromethane	112		108		62-150	4		20
1,2-Dichloroethane	100		94		70-130	6		20
1,1,1-Trichloroethane	103		100		67-130	3		20
Bromodichloromethane	98		94		67-130	4		20
trans-1,3-Dichloropropene	95		87		70-130	9		20
cis-1,3-Dichloropropene	101		97		70-130	4		20
1,1-Dichloropropene	111		108		70-130	3		20
Bromoform	100		98		54-136	2		20
1,1,2,2-Tetrachloroethane	92		88		67-130	4		20
Benzene	97		93		70-130	4		25
Toluene	99		92		70-130	7		25
Ethylbenzene	98		91		70-130	7		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

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: WG663747-1 WG663747-2								
Chloromethane	110		107		64-130	3		20
Bromomethane	110		113		39-139	3		20
Vinyl chloride	113		111		55-140	2		20
Chloroethane	116		114		55-138	2		20
1,1-Dichloroethene	102		99		61-145	3		25
trans-1,2-Dichloroethene	100		96		70-130	4		20
Trichloroethene	93		89		70-130	4		25
1,2-Dichlorobenzene	98		94		70-130	4		20
1,3-Dichlorobenzene	97		94		70-130	3		20
1,4-Dichlorobenzene	98		94		70-130	4		20
Methyl tert butyl ether	98		93		63-130	5		20
p/m-Xylene	99		91		70-130	8		20
o-Xylene	98		93		70-130	5		20
cis-1,2-Dichloroethene	103		100		70-130	3		20
Dibromomethane	100		98		70-130	2		20
1,4-Dichlorobutane	94		90		70-130	4		20
1,2,3-Trichloropropane	96		90		64-130	6		20
Styrene	97		90		70-130	7		20
Dichlorodifluoromethane	132		129		36-147	2		20
Acetone	128		131		58-148	2		20
Carbon disulfide	104		101		51-130	3		20



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

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: WG663747-1 WG663747-2								
2-Butanone	101		100		63-138	1		20
Vinyl acetate	92		88		70-130	4		20
4-Methyl-2-pentanone	94		90		59-130	4		20
2-Hexanone	93		84		57-130	10		20
Ethyl methacrylate	98		92		70-130	6		20
Acrylonitrile	104		97		70-130	7		20
Bromochloromethane	101		98		70-130	3		20
Tetrahydrofuran	98		100		58-130	2		20
2,2-Dichloropropane	103		100		63-133	3		20
1,2-Dibromoethane	98		89		70-130	10		20
1,3-Dichloropropane	97		90		70-130	7		20
1,1,1,2-Tetrachloroethane	96		90		64-130	6		20
Bromobenzene	98		94		70-130	4		20
n-Butylbenzene	93		89		53-136	4		20
sec-Butylbenzene	96		92		70-130	4		20
tert-Butylbenzene	95		92		70-130	3		20
o-Chlorotoluene	96		93		70-130	3		20
p-Chlorotoluene	96		93		70-130	3		20
1,2-Dibromo-3-chloropropane	84		80		41-144	5		20
Hexachlorobutadiene	103		101		63-130	2		20
Isopropylbenzene	97		94		70-130	3		20

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

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: WG663747-1 WG663747-2								
p-Isopropyltoluene	94		90		70-130	4		20
Naphthalene	96		91		70-130	5		20
n-Propylbenzene	91		88		69-130	3		20
1,2,3-Trichlorobenzene	96		95		70-130	1		20
1,2,4-Trichlorobenzene	101		94		70-130	7		20
1,3,5-Trimethylbenzene	95		91		64-130	4		20
1,3,5-Trichlorobenzene	98		96		70-130	2		20
1,2,4-Trimethylbenzene	92		89		70-130	3		20
trans-1,4-Dichloro-2-butene	104		102		70-130	2		20
Ethyl ether	93		91		59-134	2		20
Methyl Acetate	105		102		70-130	3		20
Ethyl Acetate	93		88		70-130	6		20
Isopropyl Ether	101		97		70-130	4		20
Cyclohexane	98		96		70-130	2		20
Tert-Butyl Alcohol	105		98		70-130	7		20
Ethyl-Tert-Butyl-Ether	101		98		70-130	3		20
Tertiary-Amyl Methyl Ether	100		94		66-130	6		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	109		106		70-130	3		20
Methyl cyclohexane	92		88		70-130	4		20
p-Diethylbenzene	94		91		70-130	3		20
4-Ethyltoluene	98		95		70-130	3		20

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

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: WG663747-1 WG663747-2								
1,2,4,5-Tetramethylbenzene	97		92		70-130	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	101		97		70-130
Toluene-d8	103		99		70-130
4-Bromofluorobenzene	98		101		70-130
Dibromofluoromethane	107		104		70-130

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG663446-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)													
1,2-Dibromoethane	ND	0.252	0.236	94		-	-		70-130	-		20	A

# SEMIVOLATILES

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

**Lab ID:** L1400799-01  
**Client ID:** HA-7 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8270D  
**Analytical Date:** 01/09/14 02:37  
**Analyst:** JC

**Date Collected:** 01/06/14 11:45  
**Date Received:** 01/06/14  
**Field Prep:** See Narrative  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 01/08/14 12:45

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Benzidine	ND		ug/l	20	--	1
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--	1
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--	1
1,2-Dichlorobenzene	ND		ug/l	2.0	--	1
1,3-Dichlorobenzene	ND		ug/l	2.0	--	1
1,4-Dichlorobenzene	ND		ug/l	2.0	--	1
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--	1
2,4-Dinitrotoluene	ND		ug/l	5.0	--	1
2,6-Dinitrotoluene	ND		ug/l	5.0	--	1
Azobenzene	ND		ug/l	2.0	--	1
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--	1
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--	1
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--	1
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--	1
Hexachlorocyclopentadiene	ND		ug/l	20	--	1
Isophorone	ND		ug/l	5.0	--	1
Nitrobenzene	ND		ug/l	2.0	--	1
NDPA/DPA	ND		ug/l	2.0	--	1
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--	1
Butyl benzyl phthalate	ND		ug/l	5.0	--	1
Di-n-butylphthalate	ND		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
Aniline	ND		ug/l	2.0	--	1
4-Chloroaniline	ND		ug/l	5.0	--	1
2-Nitroaniline	ND		ug/l	5.0	--	1
3-Nitroaniline	ND		ug/l	5.0	--	1
4-Nitroaniline	ND		ug/l	5.0	--	1
Dibenzofuran	ND		ug/l	2.0	--	1
n-Nitrosodimethylamine	ND		ug/l	2.0	--	1



**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

Lab ID: L1400799-01

Date Collected: 01/06/14 11:45

Client ID: HA-7 (OW)

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
2,4,6-Trichlorophenol	ND		ug/l	5.0	--	1
p-Chloro-m-cresol	ND		ug/l	2.0	--	1
2-Chlorophenol	ND		ug/l	2.0	--	1
2,4-Dichlorophenol	ND		ug/l	5.0	--	1
2,4-Dimethylphenol	ND		ug/l	5.0	--	1
2-Nitrophenol	ND		ug/l	10	--	1
4-Nitrophenol	ND		ug/l	10	--	1
2,4-Dinitrophenol	ND		ug/l	20	--	1
4,6-Dinitro-o-cresol	ND		ug/l	10	--	1
Phenol	ND		ug/l	5.0	--	1
2-Methylphenol	ND		ug/l	5.0	--	1
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--	1
2,4,5-Trichlorophenol	ND		ug/l	5.0	--	1
Benzoic Acid	ND		ug/l	50	--	1
Benzyl Alcohol	ND		ug/l	2.0	--	1
Carbazole	ND		ug/l	2.0	--	1
Pyridine	ND		ug/l	5.0	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	47		21-120
Phenol-d6	28		10-120
Nitrobenzene-d5	54		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	74		10-120
4-Terphenyl-d14	72		41-149

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

**Lab ID:** L1400799-01  
**Client ID:** HA-7 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 1,8270D-SIM  
**Analytical Date:** 01/09/14 12:53  
**Analyst:** MW

**Date Collected:** 01/06/14 11:45  
**Date Received:** 01/06/14  
**Field Prep:** See Narrative  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 01/08/14 12:46

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.20	--	1
2-Chloronaphthalene	ND		ug/l	0.20	--	1
Fluoranthene	ND		ug/l	0.20	--	1
Hexachlorobutadiene	ND		ug/l	0.50	--	1
Naphthalene	ND		ug/l	0.20	--	1
Benzo(a)anthracene	ND		ug/l	0.20	--	1
Benzo(a)pyrene	ND		ug/l	0.20	--	1
Benzo(b)fluoranthene	ND		ug/l	0.20	--	1
Benzo(k)fluoranthene	ND		ug/l	0.20	--	1
Chrysene	ND		ug/l	0.20	--	1
Acenaphthylene	ND		ug/l	0.20	--	1
Anthracene	ND		ug/l	0.20	--	1
Benzo(ghi)perylene	ND		ug/l	0.20	--	1
Fluorene	ND		ug/l	0.20	--	1
Phenanthrene	ND		ug/l	0.20	--	1
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--	1
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--	1
Pyrene	ND		ug/l	0.20	--	1
1-Methylnaphthalene	ND		ug/l	0.20	--	1
2-Methylnaphthalene	ND		ug/l	0.20	--	1
Pentachlorophenol	ND		ug/l	0.80	--	1
Hexachlorobenzene	ND		ug/l	0.80	--	1
Hexachloroethane	ND		ug/l	0.80	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	39		21-120
Phenol-d6	27		10-120
Nitrobenzene-d5	66		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	75		10-120
4-Terphenyl-d14	80		41-149

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 01/09/14 01:23  
 Analyst: JC

Extraction Method: EPA 3510C  
 Extraction Date: 01/08/14 12:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG663526-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
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	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D  
 Analytical Date: 01/09/14 01:23  
 Analyst: JC

Extraction Method: EPA 3510C  
 Extraction Date: 01/08/14 12:45

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG663526-1					
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
p-Chloro-m-cresol	ND		ug/l	2.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	2.0	--
Carbazole	ND		ug/l	2.0	--
Pyridine	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	51		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	67		23-120
2-Fluorobiphenyl	80		15-120
2,4,6-Tribromophenol	100		10-120
4-Terphenyl-d14	93		41-149

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM  
 Analytical Date: 01/09/14 11:25  
 Analyst: MW

Extraction Method: EPA 3510C  
 Extraction Date: 01/08/14 12:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG663527-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM  
 Analytical Date: 01/09/14 11:25  
 Analyst: MW

Extraction Method: EPA 3510C  
 Extraction Date: 01/08/14 12:46

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG663527-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	43		21-120
Phenol-d6	29		10-120
Nitrobenzene-d5	74		23-120
2-Fluorobiphenyl	68		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	84		41-149



# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG663526-2 WG663526-3								
Benzidine	34		39		10-75	14		30
1,2,4-Trichlorobenzene	73		82		39-98	12		30
Bis(2-chloroethyl)ether	69		69		40-140	0		30
1,2-Dichlorobenzene	70		73		40-140	4		30
1,3-Dichlorobenzene	67		70		40-140	4		30
1,4-Dichlorobenzene	68		70		36-97	3		30
3,3'-Dichlorobenzidine	104		106		40-140	2		30
2,4-Dinitrotoluene	101	Q	104	Q	24-96	3		30
2,6-Dinitrotoluene	88		90		40-140	2		30
Azobenzene	96		92		40-140	4		30
4-Chlorophenyl phenyl ether	98		102		40-140	4		30
4-Bromophenyl phenyl ether	99		117		40-140	17		30
Bis(2-chloroisopropyl)ether	60		60		40-140	0		30
Bis(2-chloroethoxy)methane	95		92		40-140	3		30
Hexachlorocyclopentadiene	40		42		40-140	5		30
Isophorone	100		84		40-140	17		30
Nitrobenzene	80		80		40-140	0		30
NDPA/DPA	100		101		40-140	1		30
Bis(2-ethylhexyl)phthalate	120		120		40-140	0		30
Butyl benzyl phthalate	99		109		40-140	10		30
Di-n-butylphthalate	109		114		40-140	4		30

# **Lab Control Sample Analysis** **Batch Quality Control**

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG663526-2 WG663526-3								
Di-n-octylphthalate	137		135		40-140	1		30
Diethyl phthalate	100		104		40-140	4		30
Dimethyl phthalate	98		101		40-140	3		30
Aniline	15	Q	16	Q	40-140	6		30
4-Chloroaniline	40		41		40-140	2		30
2-Nitroaniline	96		96		52-143	0		30
3-Nitroaniline	70		73		25-145	4		30
4-Nitroaniline	92		94		51-143	2		30
Dibenzofuran	96		99		40-140	3		30
n-Nitrosodimethylamine	56		55		22-74	2		30
2,4,6-Trichlorophenol	100		103		30-130	3		30
p-Chloro-m-cresol	106	Q	116	Q	23-97	9		30
2-Chlorophenol	83		83		27-123	0		30
2,4-Dichlorophenol	99		106		30-130	7		30
2,4-Dimethylphenol	116		116		30-130	0		30
2-Nitrophenol	100		95		30-130	5		30
4-Nitrophenol	66		65		10-80	2		30
2,4-Dinitrophenol	40		44		20-130	10		30
4,6-Dinitro-o-cresol	40		44		20-164	10		30
Phenol	39		39		12-110	0		30
2-Methylphenol	74		73		30-130	1		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG663526-2 WG663526-3								
3-Methylphenol/4-Methylphenol	78		72		30-130	8		30
2,4,5-Trichlorophenol	103		106		30-130	3		30
Benzoic Acid	59		61		10-164	3		30
Benzyl Alcohol	76		76		26-116	0		30
Carbazole	102		111		55-144	8		30
Pyridine	16		17		10-66	6		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	62		63		21-120
Phenol-d6	33		35		10-120
Nitrobenzene-d5	90		78		23-120
2-Fluorobiphenyl	85		85		15-120
2,4,6-Tribromophenol	102		106		10-120
4-Terphenyl-d14	93		101		41-149

# **Lab Control Sample Analysis** Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG663527-2 WG663527-3								
Acenaphthene	80		74		37-111	8		40
2-Chloronaphthalene	80		72		40-140	11		40
Fluoranthene	100		96		40-140	4		40
Hexachlorobutadiene	73		68		40-140	7		40
Naphthalene	76		71		40-140	7		40
Benzo(a)anthracene	108		102		40-140	6		40
Benzo(a)pyrene	93		85		40-140	9		40
Benzo(b)fluoranthene	92		86		40-140	7		40
Benzo(k)fluoranthene	95		87		40-140	9		40
Chrysene	89		83		40-140	7		40
Acenaphthylene	92		84		40-140	9		40
Anthracene	97		91		40-140	6		40
Benzo(ghi)perylene	93		80		40-140	15		40
Fluorene	98		93		40-140	5		40
Phenanthrene	87		83		40-140	5		40
Dibenzo(a,h)anthracene	94		82		40-140	14		40
Indeno(1,2,3-cd)Pyrene	100		87		40-140	14		40
Pyrene	95		91		26-127	4		40
1-Methylnaphthalene	82		74		40-140	10		40
2-Methylnaphthalene	82		75		40-140	9		40
Pentachlorophenol	100		98		9-103	2		40

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG663527-2 WG663527-3								
Hexachlorobenzene	80		75		40-140	6		40
Hexachloroethane	74		69		40-140	7		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	46		46		21-120
Phenol-d6	34		34		10-120
Nitrobenzene-d5	86		82		23-120
2-Fluorobiphenyl	88		78		15-120
2,4,6-Tribromophenol	120		111		10-120
4-Terphenyl-d14	95		95		41-149

# PCBS

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Lab Number:** L1400799**Project Number:** 35060-300**Report Date:** 01/10/14**SAMPLE RESULTS**

**Lab ID:** L1400799-01  
**Client ID:** HA-7 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 01/07/14 13:07  
**Analyst:** JT

**Date Collected:** 01/06/14 11:45  
**Date Received:** 01/06/14  
**Field Prep:** See Narrative  
**Extraction Method:** EPA 608  
**Extraction Date:** 01/07/14 01:07  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 01/07/14  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 01/07/14

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	62		30-150	A



**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

**Method Blank Analysis**  
**Batch Quality Control**

**Analytical Method:** 5,608  
**Analytical Date:** 01/07/14 13:44  
**Analyst:** JT

**Extraction Method:** EPA 608  
**Extraction Date:** 01/07/14 01:07  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 01/07/14  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 01/07/14

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG663181-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance	Column
			Criteria	
2,4,5,6-Tetrachloro-m-xylene	49		30-150	A
Decachlorobiphenyl	64		30-150	A

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663181-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)													
Aroclor 1016	ND	2	1.19	60		-	-		40-140	-		50	A
Aroclor 1260	ND	2	1.24	62		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	55				30-150	A
Decachlorobiphenyl	58				30-150	A

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 130 CAMBRIDGE PARK DRIVE**Project Number:** 35060-300**Lab Number:** L1400799**Report Date:** 01/10/14

<b>Parameter</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>%Recovery Limits</b>	<b>RPD</b>	<b>Qual</b>	<b>RPD Limits</b>	<b>Column</b>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG663181-2									
Aroclor 1016	71		-		40-140	-		50	A
Aroclor 1260	75		-		40-140	-		50	A

<b>Surrogate</b>	<b>LCS %Recovery</b>	<b>Qual</b>	<b>LCSD %Recovery</b>	<b>Qual</b>	<b>Acceptance Criteria</b>	<b>Column</b>
2,4,5,6-Tetrachloro-m-xylene	55				30-150	A
Decachlorobiphenyl	80				30-150	A

Project Name: 130 CAMBRIDGE PARK DRIVE

Project Number: 35060-300

# Lab Duplicate Analysis

Batch Quality Control

Lab Number: L1400799

Report Date: 01/10/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663181-4 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		57		30-150	A
Decachlorobiphenyl	62		62		30-150	A

## METALS

Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

## SAMPLE RESULTS

Lab ID: L1400799-01

Date Collected: 01/06/14 11:45

Client ID: HA-7 (OW)

Date Received: 01/06/14

Sample Location: Not Specified

Field Prep: See Narrative

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.00100	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Arsenic, Total	0.00745		mg/l	0.00050	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Cadmium, Total	ND		mg/l	0.00020	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Chromium, Total	0.00309		mg/l	0.00100	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Copper, Total	0.00242		mg/l	0.00100	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Iron, Total	6.6		mg/l	0.05	--	1	01/07/14 10:06	01/07/14 20:42	EPA 3005A	19,200.7	TT
Lead, Total	0.00097		mg/l	0.00050	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Mercury, Total	ND		mg/l	0.0002	--	1	01/07/14 11:45	01/08/14 08:26	EPA 245.1	3,245.1	JH
Nickel, Total	0.00204		mg/l	0.00050	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Selenium, Total	ND		mg/l	0.00500	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Silver, Total	ND		mg/l	0.00040	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Zinc, Total	0.2837		mg/l	0.01000	--	1	01/07/14 10:06	01/08/14 12:57	EPA 3005A	1,6020A	KL
Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.00141		mg/l	0.00100	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Arsenic, Dissolved	0.00665		mg/l	0.00050	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Cadmium, Dissolved	ND		mg/l	0.00020	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Chromium, Dissolved	0.00218		mg/l	0.00100	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Copper, Dissolved	ND		mg/l	0.00100	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Iron, Dissolved	6.3		mg/l	0.05	--	1	01/08/14 12:03	01/08/14 13:35	NA	19,200.7	TT
Lead, Dissolved	ND		mg/l	0.00050	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Mercury, Dissolved	ND		mg/l	0.0002	--	1	01/07/14 11:45	01/08/14 08:49	EPA 245.1	3,245.1	JH
Nickel, Dissolved	0.00106		mg/l	0.00050	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Selenium, Dissolved	0.00984		mg/l	0.00500	--	1	01/08/14 12:03	01/09/14 14:33	NA	1,6020A	KL
Silver, Dissolved	ND		mg/l	0.00040	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL
Zinc, Dissolved	0.01087		mg/l	0.01000	--	1	01/08/14 12:03	01/08/14 15:46	NA	1,6020A	KL



Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG663223-1										
Antimony, Total	ND		mg/l	0.00100	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Arsenic, Total	ND		mg/l	0.00050	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Cadmium, Total	ND		mg/l	0.00020	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Chromium, Total	ND		mg/l	0.00100	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Copper, Total	ND		mg/l	0.00100	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Lead, Total	ND		mg/l	0.00050	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Nickel, Total	ND		mg/l	0.00050	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Selenium, Total	ND		mg/l	0.00500	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Silver, Total	ND		mg/l	0.00040	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL
Zinc, Total	ND		mg/l	0.01000	--	1	01/07/14 10:06	01/08/14 12:17	1,6020A	KL

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG663230-1										
Iron, Total	ND		mg/l	0.05	--	1	01/07/14 10:06	01/07/14 20:34	19,200.7	TT

### Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG663261-1										
Mercury, Total	ND		mg/l	0.0002	--	1	01/07/14 11:45	01/08/14 08:10	3,245.1	JH

### Prep Information

Digestion Method: EPA 245.1





Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG663264-1										
Mercury, Dissolved	ND		mg/l	0.0002	--	1	01/07/14 11:45	01/08/14 08:45	3,245.1	JH

### Prep Information

Digestion Method: EPA 245.1

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG663478-1										
Antimony, Dissolved	ND		mg/l	0.00100	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Arsenic, Dissolved	ND		mg/l	0.00050	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Cadmium, Dissolved	ND		mg/l	0.00020	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Chromium, Dissolved	ND		mg/l	0.00100	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Copper, Dissolved	ND		mg/l	0.00100	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Lead, Dissolved	ND		mg/l	0.00050	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Nickel, Dissolved	ND		mg/l	0.00050	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Selenium, Dissolved	ND		mg/l	0.00500	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Silver, Dissolved	ND		mg/l	0.00040	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL
Zinc, Dissolved	ND		mg/l	0.01000	--	1	01/08/14 12:03	01/08/14 15:35	1,6020A	KL

### Prep Information

Digestion Method: NA

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG663479-1										
Iron, Dissolved	ND		mg/l	0.05	--	1	01/08/14 12:03	01/08/14 13:27	19,200.7	TT

### Prep Information

Digestion Method: NA



## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG663223-2								
Antimony, Total	84		-		80-120	-		
Arsenic, Total	104		-		80-120	-		
Cadmium, Total	101		-		80-120	-		
Chromium, Total	100		-		80-120	-		
Copper, Total	103		-		80-120	-		
Lead, Total	103		-		80-120	-		
Nickel, Total	102		-		80-120	-		
Selenium, Total	109		-		80-120	-		
Silver, Total	95		-		80-120	-		
Zinc, Total	109		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG663230-2								
Iron, Total	95		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG663261-2								
Mercury, Total	92		-		85-115	-		
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG663264-2								
Mercury, Dissolved	94		-		85-115	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG663478-2					
Antimony, Dissolved	103	-	80-120	-	
Arsenic, Dissolved	100	-	80-120	-	
Cadmium, Dissolved	94	-	80-120	-	
Chromium, Dissolved	94	-	80-120	-	
Copper, Dissolved	97	-	80-120	-	
Lead, Dissolved	100	-	80-120	-	
Nickel, Dissolved	97	-	80-120	-	
Selenium, Dissolved	102	-	80-120	-	
Silver, Dissolved	90	-	80-120	-	
Zinc, Dissolved	104	-	80-120	-	
Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG663479-2					
Iron, Dissolved	96	-	85-115	-	

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663223-4 QC Sample: L1400799-01 Client ID: HA-7 (OW)												
Antimony, Total	ND	0.5	0.4800	96		-	-		80-120	-		20
Arsenic, Total	ND	0.12	0.1297	102		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.04865	95		-	-		80-120	-		20
Chromium, Total	ND	0.2	0.1906	94		-	-		80-120	-		20
Copper, Total	ND	0.25	0.2490	99		-	-		80-120	-		20
Lead, Total	ND	0.51	0.5177	101		-	-		80-120	-		20
Nickel, Total	ND	0.5	0.4860	97		-	-		80-120	-		20
Selenium, Total	ND	0.12	0.120	100		-	-		80-120	-		20
Silver, Total	ND	0.05	0.04534	91		-	-		80-120	-		20
Zinc, Total	ND	0.5	0.5224	48	Q	-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663230-4 QC Sample: L1400799-01 Client ID: HA-7 (OW)												
Iron, Total	6.6	1	6.9	30	Q	-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663261-4 QC Sample: L1400789-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.0052	104		-	-		70-130	-		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663264-4 QC Sample: L1400799-01 Client ID: HA-7 (OW)												
Mercury, Dissolved	ND	0.005	0.0056	113		-	-		75-125	-		20

# **Matrix Spike Analysis** **Batch Quality Control**

**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663478-4 QC Sample: L1400799-01 Client ID: HA-7 (OW)									
Antimony, Dissolved	0.00141	0.5	0.3567	71	Q	-	80-120	-	20
Arsenic, Dissolved	0.00665	0.12	0.1218	96		-	80-120	-	20
Cadmium, Dissolved	ND	0.051	0.04713	92		-	80-120	-	20
Chromium, Dissolved	0.00218	0.2	0.1826	90		-	80-120	-	20
Copper, Dissolved	ND	0.25	0.2320	93		-	80-120	-	20
Lead, Dissolved	ND	0.51	0.4895	96		-	80-120	-	20
Nickel, Dissolved	0.00106	0.5	0.4660	93		-	80-120	-	20
Selenium, Dissolved	0.00984	0.12	0.125	96		-	75-125	-	20
Silver, Dissolved	ND	0.05	0.03572	71	Q	-	80-120	-	20
Zinc, Dissolved	0.01087	0.5	0.4945	97		-	80-120	-	20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663479-4 QC Sample: L1400799-01 Client ID: HA-7 (OW)									
Iron, Dissolved	6.3	1	7.0	70	Q	-	75-125	-	20

**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Duplicate Analysis**  
**Batch Quality Control**

**Lab Number:** L1400799  
**Report Date:** 01/10/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663223-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00745	0.00773	mg/l	4		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.00309	0.00326	mg/l	5		20
Copper, Total	0.00242	0.00254	mg/l	5		20
Lead, Total	0.00097	0.00101	mg/l	4		20
Nickel, Total	0.00204	0.00150	mg/l	31	Q	20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.2837	0.01069	mg/l	185	Q	20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663230-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Iron, Total	6.6	6.4	mg/l	3		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663261-3 QC Sample: L1400789-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663264-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Mercury, Dissolved	ND	ND	mg/l	NC		20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663478-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)					
Antimony, Dissolved	0.00141	ND	mg/l	NC	20
Arsenic, Dissolved	0.00665	0.00666	mg/l	0	20
Cadmium, Dissolved	ND	ND	mg/l	NC	20
Chromium, Dissolved	0.00218	0.00209	mg/l	4	20
Copper, Dissolved	ND	ND	mg/l	NC	20
Lead, Dissolved	ND	ND	mg/l	NC	20
Nickel, Dissolved	0.00106	0.00102	mg/l	4	20
Silver, Dissolved	ND	ND	mg/l	NC	20
Zinc, Dissolved	0.01087	0.01050	mg/l	3	20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663478-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)					
Selenium, Dissolved	0.00984	0.0150	mg/l	42	Q 20
Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663479-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)					
Iron, Dissolved	6.3	6.3	mg/l	0	20



# **INORGANICS & MISCELLANEOUS**

**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

**SAMPLE RESULTS**

**Lab ID:** L1400799-01  
**Client ID:** HA-7 (OW)  
**Sample Location:** Not Specified  
**Matrix:** Water

**Date Collected:** 01/06/14 11:45  
**Date Received:** 01/06/14  
**Field Prep:** See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
<b>General Chemistry - Westborough Lab</b>										
Solids, Total Suspended	ND		mg/l	10	NA	2	-	01/08/14 12:50	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	01/07/14 11:10	01/07/14 16:36	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	01/07/14 01:05	30,4500CL-D	DE
TPH	ND		mg/l	4.00	--	1	01/07/14 11:15	01/07/14 17:00	74,1664A	JO
Phenolics, Total	ND		mg/l	0.030	--	1	01/07/14 10:15	01/07/14 12:56	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	01/07/14 01:15	01/07/14 01:35	30,3500CR-D	DE
<b>Anions by Ion Chromatography - Westborough Lab</b>										
Chloride	328.		mg/l	25.0	--	50	-	01/08/14 18:05	44,300.0	AU



Project Name: 130 CAMBRIDGE PARK DRIVE

Lab Number: L1400799

Project Number: 35060-300

Report Date: 01/10/14

### Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG663157-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	01/07/14 01:15	01/07/14 01:35	30,3500CR-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG663161-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	01/07/14 01:05	30,4500CL-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG663224-1										
Phenolics, Total	ND		mg/l	0.030	--	1	01/07/14 10:15	01/07/14 12:55	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG663250-1										
Cyanide, Total	ND		mg/l	0.005	--	1	01/07/14 11:10	01/07/14 15:55	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG663282-1										
TPH	ND		mg/l	4.00	--	1	01/07/14 11:15	01/07/14 17:00	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG663410-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	01/08/14 12:50	30,2540D	DW
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG663603-1										
Chloride	ND		mg/l	0.500	--	1	-	01/08/14 17:29	44,300.0	AU

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 130 CAMBRIDGE PARK DRIVE**Project Number:** 35060-300**Lab Number:** L1400799**Report Date:** 01/10/14

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG663157-2								
Chromium, Hexavalent	93		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG663161-2								
Chlorine, Total Residual	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG663224-2								
Phenolics, Total	106		-		82-111	-		12
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG663250-2								
Cyanide, Total	105		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG663282-2								
TPH	80		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG663603-2								
Chloride	100		-		90-110	-		

# Matrix Spike Analysis

## Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Lab Number:** L1400799

**Project Number:** 35060-300

**Report Date:** 01/10/14

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01    QC Batch ID: WG663157-4    QC Sample: L1400799-01    Client ID: HA-7 (OW)												
Chromium, Hexavalent	ND	0.1	0.091	91		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01    QC Batch ID: WG663224-4    QC Sample: L1400807-02    Client ID: MS Sample												
Phenolics, Total	ND	0.8	0.86	108		-	-		77-124	-		12
General Chemistry - Westborough Lab Associated sample(s): 01    QC Batch ID: WG663250-4    QC Sample: L1400799-01    Client ID: HA-7 (OW)												
Cyanide, Total	ND	0.2	0.206	103		-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01    QC Batch ID: WG663603-3    QC Sample: L1400825-03    Client ID: MS Sample												
Chloride	ND	4	4.24	106		-	-		40-151	-		18

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 130 CAMBRIDGE PARK DRIVE

**Project Number:** 35060-300

**Lab Number:** L1400799

**Report Date:** 01/10/14

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663157-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663161-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663224-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Phenolics, Total	ND	ND	mg/l	NC		12
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663250-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663282-3 QC Sample: L1400799-01 Client ID: HA-7 (OW)						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663410-2 QC Sample: L1400793-02 Client ID: DUP Sample						
Solids, Total Suspended	870	860	mg/l	1		29
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG663603-4 QC Sample: L1400825-03 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18

**Project Name:** 130 CAMBRIDGE PARK DRIVE**Project Number:** 35060-300**Lab Number:** L1400799**Report Date:** 01/10/14**Sample Receipt and Container Information**

Were project specific reporting limits specified? YES

**Reagent H2O Preserved Vials Frozen on:** NA**Cooler Information Custody Seal****Cooler**

A Absent

**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1400799-01A	Vial HCl preserved	A	N/A	2.4	Y	Absent	8260-SIM(14),8260(14)
L1400799-01B	Vial HCl preserved	A	N/A	2.4	Y	Absent	8260-SIM(14),8260(14)
L1400799-01D	Vial Na2S2O3 preserved	A	N/A	2.4	Y	Absent	504(14)
L1400799-01E	Vial Na2S2O3 preserved	A	N/A	2.4	Y	Absent	504(14)
L1400799-01F	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	CU-6020S(180),FE-RI(180),SE-6020S(180),ZN-6020S(180),CR-6020S(180),NI-6020S(180),PB-6020S(180),AG-6020S(180),AS-6020S(180),HG-R(28),SB-6020S(180),CD-6020S(180)
L1400799-01G	Plastic 250ml HNO3 preserved	A	<2	2.4	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1400799-01H	Plastic 250ml NaOH preserved	A	>12	2.4	Y	Absent	TCN-4500(14)
L1400799-01I	Plastic 500ml unpreserved	A	7	2.4	Y	Absent	HEXCR-3500(1),TSS-2540(7)
L1400799-01J	Plastic 500ml unpreserved	A	7	2.4	Y	Absent	CL-300(28),TRC-4500(1)
L1400799-01K	Plastic 1000ml unpreserved	A	7	2.4	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1400799-01L	Amber 1000ml H2SO4 preserved	A	<2	2.4	Y	Absent	TPHENOL-420(28)
L1400799-01M	Amber 1000ml HCl preserved	A	N/A	2.4	Y	Absent	TPH-1664(28)
L1400799-01N	Amber 1000ml HCl preserved	A	N/A	2.4	Y	Absent	TPH-1664(28)
L1400799-01O	Amber 1000ml Na2S2O3	A	7	2.4	Y	Absent	PCB-608(7)
L1400799-01P	Amber 1000ml Na2S2O3	A	7	2.4	Y	Absent	PCB-608(7)
L1400799-02A	Vial HCl preserved	A	N/A	2.4	Y	Absent	8260-SIM(14),8260(14)
L1400799-02B	Vial HCl preserved	A	N/A	2.4	Y	Absent	8260-SIM(14),8260(14)
L1400799-02C	Vial Na2S2O3 preserved	A	N/A	2.4	Y	Absent	504(14)

**Container Comments**

\*Values in parentheses indicate holding time in days



**Project Name:** 130 CAMBRIDGE PARK DRIVE**Project Number:** 35060-300**Lab Number:** L1400799**Report Date:** 01/10/14**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
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**Container Comments**

L1400799-01O

L1400799-01P

\*Values in parentheses indicate holding time in days



**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

## GLOSSARY

### Acronyms

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).
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.
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.
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.
NI	- Not Ignitable.
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.

### Footnotes

- 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.

### 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 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 AND 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 above the reporting limit.
- 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.

**Report Format:** Data Usability Report



**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

**Data Qualifiers**

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- 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.

Report Format: Data Usability Report

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**Project Name:** 130 CAMBRIDGE PARK DRIVE  
**Project Number:** 35060-300

**Lab Number:** L1400799  
**Report Date:** 01/10/14

## 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.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 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.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 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.

## 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

Last revised December 11, 2013

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

### **Westborough Facility**

**EPA 524.2:** Acetone, 2-Butanone (Methyl ethyl ketone (MEK)), Tert-butyl alcohol, 2-Hexanone, Tetrahydrofuran, 1,3,5-Trichlorobenzene, 4-Methyl-2-pentanone (MIBK), Carbon disulfide, Diethyl ether.

**EPA 8260C:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, Iodomethane (methyl iodide), Methyl methacrylate, Azobenzene.

**EPA 8330A/B:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT.

**EPA 8270D:** 1-Methylnaphthalene, Dimethylnaphthalene, 1,4-Diphenylhydrazine.

**EPA 625:** 4-Chloroaniline, 4-Methylphenol.

**SM4500:** Soil: Total Phosphorus, TKN, NO<sub>2</sub>, NO<sub>3</sub>.

**EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

### **Mansfield Facility**

**EPA 8270D:** Biphenyl.

**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.

**The following analytes are included in our Massachusetts DEP Scope of Accreditation, Westborough Facility:**

### ***Drinking Water***

**EPA 200.8:** Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Ni, Se, Tl; **EPA 200.7:** Ba, Be, Ca, Cd, Cr, Cu, Na; **EPA 245.1:** Mercury;

**EPA 300.0:** Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO<sub>3</sub>-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

**EPA 332:** Perchlorate.

**Microbiology:** **SM9215B; SM9223-P/A, SM9223B-Colilert-QT, Enterolert-QT.**

### ***Non-Potable Water***

**EPA 200.8:** Al, Sb, As, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, Tl, Zn;

**EPA 200.7:** Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, Ti, Tl, V, Zn;

**EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH<sub>3</sub>-BH, EPA 350.1:** Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO<sub>3</sub>-F, EPA 353.2:** Nitrate-N, **SM4500NH<sub>3</sub>-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

**EPA 624:** Volatile Halocarbons & Aromatics,

**EPA 608:** 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:** SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

**Microbiology:** **SM9223B-Colilert-QT; Enterolert-QT, SM9222D-MF.**

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

**HALEY & ALDRICH**Haley & Aldrich, Inc.  
465 Medford St.,  
Suite 2200,  
Boston, MA 02129-1400**CHAIN OF CUSTODY RECORD**Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 35060-300  
PROJECT NAME 130 Cambridge PK Dr.  
H&A CONTACT Todd ButlerLABORATORY Haley & Aldrich  
ADDRESS Westboro MA  
CONTACT Gina B.DELIVERY DATE 1/6/2014  
TURNAROUND TIME 5-Day  
PROJECT MANAGER Todd Butler

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)	
					1 VOA	2 ABN PAH only	3 MCP Metals	4 Pesticides PCBs	5 VPH Full Suite C-ranges only	6 EBH Full Suite C-ranges only	7 TPH (spec)	8 TCLP (spec)	9 Reactivity Ignitability Corrosivity	10	11	12			
HA-1/ow)	1/6/14	1145	-	Ag	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 1 EDB/504 2 Total Metals 3 Dissolve RBP metals (FF) 4 TSS 5 Hex Cr 6 PCB-608 7 8260 8 TCN 9 TPH-1664 10 Total Phenol 11 TRC, CL 12 Trip blanks -504 -8260 (1, 4- Dioxane -8260

Also analyze 8270/8270SIM; Total and Dissolved Metals = Hg.Ag.As. Cd.Cr.Cu.Ni.Pb Sb.Se.Zn.Fe; For 8260 report both 8260 and 8260-SIM (1,4-Dioxane)

Sampled and Relinquished by		Received by		Sampling Comments															
Sign <u>A. Shan</u>	Sign <u>M. Amato</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	VOA Vial	Sample submitted for NPDES RBP permit. Please follow appropriate testing methods and minimum detection levels as required by the EPA for the RBP.	
Print <u>S. Shan</u>	Print <u>M. Amato</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Amber Glass		
Firm <u>Haley &amp; Aldrich, Inc.</u>	Firm <u>H&amp;A</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Plastic Bottle		
Date <u>1/6/14</u> Time <u>1600</u>	Date <u>1/6/14</u> Time <u>1630</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	Preservative		
Relinquished by		Received by		Volume ml															
Sign <u>M. Amato</u>	Sign <u>Wayne Plummer</u>	40	250	250	1000	500	1000	40	250	100	1000	500	40	SOLID				VOA Vial	Evidence samples were tampered with? YES NO If YES, please explain in section below.
Print <u>M. Amato</u>	Print <u>Wayne Plummer</u>																Amber Glass		
Firm <u>H&amp;A</u>	Firm <u>Alpha</u>																Clear Glass		
Date <u>1/6/14</u> Time <u>1630</u>	Date <u>1/6/14</u> Time <u>1630</u>																Preservative		
Relinquished by		Received by		Volume															
Sign <u>Wayne Plummer</u>	Sign <u>Richard Scott</u>																	PRESERVATION KEY	
Print <u>Wayne Plummer</u>	Print <u>Richard Scott</u>																		
Firm <u>Alpha</u>	Firm <u>Alpha</u>																		
Date <u>1/6/14</u> Time <u>1755</u>	Date <u>1/6/14</u> Time <u>1755</u>																		

Presumptive Certainty Data Package (Laboratory to use applicable DEP CAM methods)

If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

Required Reporting Limits and Data Quality Objectives

- |                                 |                             |                              |
|---------------------------------|-----------------------------|------------------------------|
| <input type="checkbox"/> RC-S1  | <input type="checkbox"/> S1 | <input type="checkbox"/> GW1 |
| <input type="checkbox"/> RC-S2  | <input type="checkbox"/> S2 | <input type="checkbox"/> GW2 |
| <input type="checkbox"/> RC-GW1 | <input type="checkbox"/> S3 | <input type="checkbox"/> GW3 |
| <input type="checkbox"/> RC-GW2 |                             |                              |

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Boston, MA 02129-1400**CHAIN OF CUSTODY RECORD**Phone (617) 886-7400  
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 35060-300  
PROJECT NAME 130 Cambridge PK Dr.  
H&A CONTACT Todd ButlerLABORATORY Haley & Aldrich  
ADDRESS Westboro MA  
CONTACT Kina B.DELIVERY DATE 1/6/2014  
TURNAROUND TIME 5-8 days  
PROJECT MANAGER Todd Butler

Sample No.	Date	Time	Depth	Type	Analysis Requested												Number of Containers	Comments (special instructions, precautions, additional method numbers, etc.)
					1	2	3	4	5	6	7	8	9	10	11	12		
HA-1/0w)	1/6/14	1145	—	Ag	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	18	Laboratory to use applicable DEP CAM methods, unless otherwise directed. 1 EDA/504 2 Total Metals 3 Dissolve RBP metals (FF) 4 TSS 5 Hex Cr 6 PCB-608 7 8260 8 TCN 9 TPH-1664 10 Total Phenol 11 TRC, CL

Sampled and Relinquished by		Received by		LIQUID												Sampling Comments	
Sign <u>A. Shan</u>	Sign <u>M. Ayoub</u>	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	VOA Vial	Sample submitted for NPDES RBP permit. Please follow appropriate testing methods and minimum detection levels as required by the EPA for the RBP.	
Print <u>S. Shan</u>	Print <u>M. Ayoub</u>														Amber Glass		
Firm <u>Haley &amp; Aldrich, Inc.</u>	Firm <u>Alpha</u>														Plastic Bottle		
Date <u>1/6/14</u> Time <u>1600</u>	Date <u>1/6/14</u> Time <u>1630</u>	<u>AF</u>	<u>AD</u>	<u>AD</u>	<u>A</u>	<u>A</u>	<u>AE</u>	<u>AF</u>	<u>AC</u>	<u>AF</u>	<u>AE</u>	<u>A</u>	<u>AE</u>		Preservative		
Relinquished by	Received by	<u>40</u>	<u>250</u>	<u>250</u>	<u>1000</u>	<u>500</u>	<u>1000</u>	<u>40</u>	<u>250</u>	<u>1000</u>	<u>1000</u>	<u>500</u>	<u>40</u>	<u>Volume ml</u>			
Sign <u>M. Ayoub</u>	Sign <u>Wayne Plummer</u>	SOLID													VOA Vial		
Print <u>M. Ayoub</u>	Print <u>Wayne Plummer</u>														Amber Glass		
Firm <u>Alpha</u>	Firm <u>Alpha</u>														Clear Glass		
Date <u>1/6/14</u> Time <u>1630</u>	Date <u>1/6/14</u> Time <u>1630</u>														Preservative		
Relinquished by	Received by														Volume	Evidence samples were tampered with? YES NO	
Sign <u>Wayne Plummer</u>	Sign <u>Richard Scott</u>															If YES, please explain in section below.	
Print <u>Wayne Plummer</u>	Print <u>Richard Scott</u>	PRESERVATION KEY															
Firm <u>Alpha</u>	Firm <u>Alpha</u>	A	Sample chilled	C	NaOH	E	H <sub>2</sub> SO <sub>4</sub>	G	Methanol	I	Na <sub>2</sub> S <sub>2</sub> O <sub>3</sub>						
Date <u>1/6/14</u> Time <u>1755</u>	Date <u>1/6/14</u> Time <u>1755</u>	B	Sample filtered	D	HNO <sub>3</sub>	F	HCL	H	Water/NaHSO <sub>4</sub> (circle)								

## If Presumptive Certainty Data Package is needed, initial all sections:

The required minimum field QC samples, as designated in BWSC CAM-VII have been or will be collected, as appropriate, to meet the requirements of Presumptive Certainty.

Matrix Spike (MS) samples for MCP Metals and/or Cyanide are included and identified herein.

This Chain of Custody Record (specify) \_\_\_\_\_ includes \_\_\_\_\_ does not include samples defined as Drinking Water Samples.

If this Chain of Custody Record identifies samples defined as Drinking Water Samples, Trip Blanks and Field Duplicates are included and identified and analysis of TICs are required, as appropriate. Laboratory should (specify if applicable) \_\_\_\_\_ analyze

## Required Reporting Limits and Data Quality Objectives

- |                                 |                             |                              |
|---------------------------------|-----------------------------|------------------------------|
| <input type="checkbox"/> RC-S1  | <input type="checkbox"/> S1 | <input type="checkbox"/> GW1 |
| <input type="checkbox"/> RC-S2  | <input type="checkbox"/> S2 | <input type="checkbox"/> GW2 |
| <input type="checkbox"/> RC-GW1 | <input type="checkbox"/> S3 | <input type="checkbox"/> GW3 |
| <input type="checkbox"/> RC-GW2 |                             |                              |