



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100

BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

OCT 11 2011

David Hartford, Project Manager  
John Moriarty & Associates  
3 Church Street  
Winchester MA 01890

Re: Authorization to discharge under the Remediation General Permit (RGP) –  
MAG910000. Construction site located at 610 Main Street, Cambridge, MA 02139  
Middlesex County; Authorization # MAG910504

Dear Mr. Hartford.

Based on the review of a Notice of Intent (NOI) submitted on behalf of #650 Main Street Leasehold LLC. by the firm McPhail Associates, Inc., 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 you have marked "Believed Present". The checklist also includes total petroleum hydrocarbons (TPH), a parameters for which your laboratory reports indicate there was insufficient sensitivity to detect this parameter at the minimum levels established in Appendix VI of the RGP

In addition, EPA is requiring monitoring and effluent limits for benzene, toluene, ethylbenzene, xylenes, methylene chloride, tetrachloroethene (PCE), 1,1,2 trichloroethane (TCA), trichloroethene (TCE), vinyl chloride, total group I and group II polycyclic aromatic hydrocarbons (PAHs) and total chlorinated biphenyls (PCBs), in view of historic pollutant concentrations. You may request a deletion of these and any other



compounds not present in the influent during the first six months to a year of continuously monitoring these compounds by filing a notice of change (NOC) request. Please see the notice of change (NOC) information under Appendix V on the RGP website.

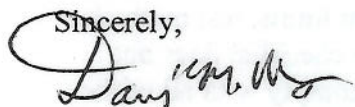
Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. For each parameter the dilution factor 231 for this site is within a dilution range greater than one hundred ( $>100$ ), established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for antimony of 141ug/L, arsenic of 540ug/L, chromium III of 1,710ug/L, copper of 520ug/L, lead of 132ug/L, nickel of 2,380ug/L, selenium of 408ug/L, zinc of 1,480ug/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 general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on October 31, 2013. If for any reason the discharge terminates sooner 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,



David M. Webster, Chief  
Industrial Permits Branch

Enclosure

cc: Kathleen Keohane, MassDEP  
Alison L. Dadona, McPhail Associates, Inc.  
Owen O'Riordan, Cambridge DPW

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

<b>NPDES Authorization Number:</b>	<b>MAG910504</b>
Authorization Issued:	October, 2011
Facility/Site Name:	Construction Site
Facility/Site Address:	610 Main Street, Cambridge, MA 02139, Middlesex County
	Email address of owner: mmccaffrey@mitimco.org
Legal Name of Operator:	John Moriarte & Associates
Operator Contact Name, Title, and Address:	David Hartford, Project Manager 3 Church Street, Winchester, MA 01890 Email: dhardford@jm-a.com
Estimated Project Completion Date:	October 31, 2013
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Sub-category A. General Urban Fill Sites
Permit Expiration Date:	September 9, 2015
Receiving Water:	Charles River

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

	<u><b>Parameter</b></u>	<u><b>Effluent Limit/Method#/ML</b></u> (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 mg/L (mg/L) ** & 50 mg/L for hydrostatic testing **, Me 160.2 SM 2540D (5mg/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
✓	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes	100 ug/L/ Me#8260C/ ML 2ug/L



	<u>Parameter</u>	<u>Effluent Limit/Method#/ML</u> (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	(BTEX) <sup>4</sup>	
	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
✓	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/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)
✓	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 0.1ug/L

	<b><u>Metal parameter</u></b>	<b><u>Total Recoverable Metal Limit @ H <sup>10</sup> = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) <sup>11/12</sup></u></b>	<b><u>Minimum level=ML</u></b>
		<b><u>Freshwater</u></b>	
	39. Antimony	5.6/ML 10	



	<b>Metal parameter</b>	<b>Total Recoverable Metal Limit @ H<sup>10</sup> = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l)<sup>11/12</sup></b>		<b>Minimum level=ML</b>	
		<b>Freshwater</b>			
✓	40. Arsenic **	540/ML20			
✓	41. Cadmium **	20/ML10			
✓	42. Chromium III (trivalent) **	1,710/ML15			
	43. Chromium VI (hexavalent) **	11.4/ML10			
✓	44. Copper **	520/ML15			
✓	45. Lead **	132/ML20			
	46. Mercury **	0.9/ML0.2			
✓	47. Nickel **	2,380/ML20			
✓	48. Selenium **	408/ML20			
	49. Silver	1.2/ML10			
✓	50. Zinc **	1,480/ML15			
✓	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 "Oroclor 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 x 1,000ug/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 x 2 =2,000 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 FOR DISCHARGE  
UNDER MASSACHUSETTS REMEDIAL  
GENERAL PERMIT MAG910000**

**610 MAIN STREET**

**CAMBRIDGE      MASSACHUSETTS**

to

**U.S. Environmental Protection Agency  
and  
Massachusetts Department of  
Environmental Protection**

September 28, 2011

Project No. 4781





Geotechnical Engineers

September 28, 2011

U.S. Environmental Protection Agency  
RGP-NOC Processing Municipal Assistance Unit (CMU)  
1 Congress Street, Suite 1100  
Boston, MA 02114-2023

Attention: RGP-NOC Processing

Reference: 610 Main Street; Cambridge, Massachusetts  
Notice of Intent for Construction Dewatering Discharge Under Massachusetts  
Remedial General Permit MAG910000

Ladies and Gentlemen:

The purpose of this letter report is to provide a summary of the site and groundwater quality information in support of an application for permission from the U.S. Environmental Protection Agency (EPA) for the temporary discharge of groundwater into the Charles River during construction at the above referenced site. Refer to **Figure 1** Project Location Plan for the general site locus.

These services were performed and this permit application was prepared with the authorization of 650 Main Street Leasehold LLC. These services are subject to the limitations contained in **Attachment A**.

Fronting onto Main Street to the north, the subject site is bounded by Albany Street to the south, Portland Street to the east, and an existing 2 to 5-story commercial building to the west. Currently, the site is utilized as a paved surface parking lot with landscaped margins and a stormwater detention pond that occupies a plan area of approximately 10,000 square feet. Existing ground surface across the parking lot is relatively level varying from approximately Elevation +18 to +21. Within the detention pond, the site grades slope downward to a low point at about Elevation +12.5. The east bound tunnel of the MBTA's red-line subway abuts the subject site to the north below Main Street. Elevations referenced herein are to the Cambridge City Base vertical datum. The limits of the subject site are shown on **Figure 2**, which is based on a plan entitled Subsurface Exploration Plan.

It is understood that the proposed development plans include two phases of building construction which will generally occupy the entire site limits. The Phase I construction is understood to include the construction of a seven-story steel-framed building with two mechanical floors on the southern portion of the site occupying a plan area of approximately 29,000 square feet overlying a one-level basement parking garage, and the construction of a three-level basement parking garage on the northern portion of the site. The upper floors of the new building will occupy a footprint of approximately 25,000 square feet. At the northern end of the one-level garage, a stormwater storage tank will be constructed that extends downward to approximately the same elevation as the three-level garage. The Phase II construction will include the development of a second three-story steel-framed building occupying a plan area of approximately 46,000 square feet and overlying the three-level parking garage. New utilities will be installed in the proposed driveway between the existing building and the new structures, and new sidewalks with landscaped margins will be constructed along the site perimeter.

The proposed depth of excavation for construction of the one-level parking garage is approximately 20 feet below existing ground surface, or to about Elevation 0.0. The proposed depth of excavation for the stormwater storage tank and the three-level parking garage varies from approximately 37 to 40 feet below existing ground surface, or to about Elevation -17 to Elevation -20.



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In addition, utility site work includes the construction of new utilities within the existing parking lot driveway to the west of the proposed building footprint.

The explorations indicate that the existing ground surface is covered by a 4 to 6-inch thickness of asphalt pavement, underlain by a 6 to 12-foot thickness of urban fill material containing ash and cinders and variable amounts of concrete, brick, wood, glass, metal and organic material. During a previous test pit investigation, timber piles, concrete walls, concrete slabs and caissons indicative of the presence of the below-grade remains of former site structures were encountered within the fill material. Underlying the fill across the site, the boreholes typically encountered an organic deposit that varied from 1 to 8 feet in thickness, where encountered.

Beneath the fill and/or organic deposits across the site, the borings encountered a stratified deposit of marine sand and clay underlain by an extensive deposit of marine clay. The stratified sand and clay deposit, referred to herein collectively as the sand deposit, typically varies from about 1 to 18 feet in thickness. The discontinuous marine clay layer, where encountered, was observed to range from about 1 to 5.5 feet in thickness.

Beneath the stratified sand deposit, the borings encountered the surface of an extensive deposit of marine clay at depths ranging from 21.5 to 29 feet below the existing ground surface, corresponding to Elevation -2.1 to Elevation -10.3, respectively. The marine clay deposit was observed to range in thickness from about 84 feet at the western site limits to about 112 feet within the southern portion of the site.

Groundwater levels observed within the completed boreholes and within groundwater observation wells ranged from 4.6 to 14 feet below the existing ground surface corresponding to Elevation +13.7 and Elevation +6.6, respectively.

Three (3) MCP sites have been identified at the subject site. The MCP site with Release Tracking Number (RTN) 3-19997 is located on the southern portion of the subject site. A report prepared by McPhail Associates entitled "Phase I Initial Site Investigation Report in Support of a Response Action Outcome" dated August 3, 2001 indicated that a release of lead had been identified in soil on the southern portion of the subject site, which had been reported to the Massachusetts DEP during September 2000. Elevated concentrations of petroleum hydrocarbons and polynuclear aromatic hydrocarbons (PAHs) were also identified in soil at the site, however, the elevated concentrations were attributable to the presence of coal ash and cinders in the urban fill present on the site.

During response actions conducted pursuant to a Release Abatement Measure (RAM) Plan, approximately 1,800 tons of soil were excavated and disposed of off-site. Confirmatory sampling performed at the limits of the excavations indicated that lead had been reduced to concentrations below the S-1 standards, PAH concentrations were consistent with Background, and concentrations of petroleum hydrocarbons had been reduced to below the laboratory method detection limits and/or well below the applicable S-1 soil standards. A Class A-2 RAO was prepared and submitted to the Massachusetts DEP for this site, indicating that no further remedial action was required and that a Permanent Solution and a Condition of No Significant Risk had been achieved without the need for an Activity and Use Limitation (AUL).





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The MCP site, which was assigned RTN 3-3471, covers the entire subject site. GEI Consultants, Inc. (GEI) conducted a "Limited Subsurface Investigation/Response Action Outcome" for the Polaroid Corporation during July 1997. According to GEI, the site was listed by the DEP as a Location to be Investigated during July 1992 due to the presence of PAHs detected in soils in 1984. As a result, Polaroid Corporation contracted with GEI to perform subsurface investigations and analytical testing of soil and groundwater samples. GEI identified exposure point concentrations for extractable petroleum hydrocarbons (EPH), metals and PCBs below the applicable soil standards. In addition, based upon test results, GEI reported that PAHs and volatile organic compounds (VOCs) were not detected in groundwater samples above the laboratory method detection limits.

Furthermore, based on the results of laboratory testing, as well as test pit and soil boring observations, GEI concluded that PAHs present at the site were associated with coal ash in the fill material. As a result, GEI completed a Method 2 Human Health Risk Characterization in support of a Class B-1 RAO. A Class B-1 RAO indicates that no remedial actions were performed to achieve a level of No Significant Risk, a Permanent Solution has been achieved and an AUL is not necessary.

During June, July and August 2011, subsurface investigations were performed at the subject property to pre-characterize soil and groundwater in anticipation of site redevelopment. The analytical results of soil samples identified Reportable Concentrations of some chlorinated volatile organic compounds (CVOCs) and semi-volatile organic compounds (SVOCs), total petroleum hydrocarbons (TPH), volatile petroleum hydrocarbons (VPH) and total metals including antimony, arsenic, cadmium, lead, nickel, thallium, vanadium, and zinc at localized areas across the subject property. These compounds are referred to herein as contaminants of concern. On September 16, 2011, the Massachusetts DEP was notified of the releases in soil as a 120-day reporting condition to which RTN 3-30307 was assigned.

Excavation within the proposed building footprint will extend to a depth of approximately 10 to 30 feet below the observed groundwater level. In order to permit construction of the below grade parking garages and stormwater storage tank and provide an effective groundwater cut-off during construction, a continuously interlocking steel sheet pile wall will be installed into the underlying marine clay deposit just beyond the perimeter foundation walls of the structure. Hence, construction dewatering will be required within the groundwater cut-off area to allow the construction of the below-grade portion of the concrete slab and foundations. The majority of the anticipated dewatering will occur during excavation following the installation of the groundwater cut-off. Additional minor dewatering may occur during installation of the lowest elevation concrete slab and footings.

It is estimated that intermittent groundwater discharge required during the initial stages of the excavation phase of the construction will be on the order of 50 to 100 gallons per minute (GPM). The quantity of groundwater discharge is based on the relatively pervious nature of the upper portion of existing fill material and the presence of the sheet piling surrounding the excavation which will act as a groundwater cut-off. A reduction in the rate of discharge is anticipated to occur during excavation of the less permeable marine clay deposit. A rate of discharge of 20 to 50 GPM is envisioned during this stage of excavation. These estimates of discharge do not include surface runoff which will be removed from the excavation during a limited duration of a rain storm and shortly thereafter.

Since the footprint of the proposed construction will occupy a majority of the subject site's area and the groundwater cut-off wall will be installed at the perimeter of the site, temporary on-site collection and recharge of groundwater is not feasible. Construction related dewatering of groundwater will be discharged directly into a City of Cambridge 15-inch storm drain line located below Albany Street. Based



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on information provided to us by Nitsch Engineering (the project civil engineer), according to the City of Cambridge Department of Public Works (DPW), the abovementioned 15-inch storm drain line below Albany Street connects into the South Massachusetts Avenue storm drain system. As indicated on the attached drawings obtained from the City of Cambridge on-line Sewer Viewer database, the storm drain line that runs beneath Massachusetts Avenue near its intersection with Albany Street discharges to the Charles River near the Massachusetts Avenue/Harvard Bridge. Therefore, given the ultimate discharge of groundwater from the subject site into the Charles River, construction dewatering will be conducted under the requested U.S. EPA Remediation General Permit (RGP).

The location of the catch basin discharge points in relation to the project site is indicated on **Figure 2** which was prepared from a 100-scale drawing entitled "Existing Survey" dated October 24, 2005 by Elkus/Manfredi Architects, and a 1/16"=1'-0" scale drawing No.S1.B3 entitled, "Parking Level B3/Foundation Plan" dated August 26, 2011 prepared by Elkus/Manfredi Architects.

Based on the results of groundwater analytical testing, it is our opinion that a settling tank and bag filter will be required to settle out particulate matter to meet allowable total suspended solids (TSS) discharge limits established by the US EPA prior to discharge. One settling tank 10,000-gallons in capacity and two bag filters will be incorporated into the discharge system in series in order to meet allowable discharge limits for TSS and total metals established by the RGP. It is our opinion that the removal of sediment will also result in a reduction in total metals to levels below the RGP permit limits. A schematic of the treatment system is shown on **Figure 3**.

To document the effectiveness of the sedimentation system, samples of the discharge water will be obtained and tested for the presence of TSS and total metals prior to the start of discharge into the storm drain system. Should the pre-start up testing indicate that the levels of TSS and/or total metals in the effluent from the treatment system exceed the limits established under the RGP, additional treatment of the effluent will be implemented prior to initial discharge.

If the results of testing for total metals continue to indicate an exceedance of the RGP limit concentrations, then appropriate treatment will be implemented to address the exceedances. In addition, should other contaminants be detected within the discharge water during the construction dewatering phase of the project at levels that exceed the effluent limitations, mitigative measures will be implemented to meet the allowable discharge limits.

In conclusion, it is our opinion that groundwater at the site is acceptable for discharge into the City of Cambridge storm drain and ultimately into the Charles River under a Remedial General Permit. Sampling and analysis of the effluent will be carried out in accordance with the terms of the Remedial General Permit.

Supplemental information appended to this letter in support of the RGP includes the following;

- Notice of Intent Transmittal Form for Permit Application (**Appendix B**)
- A summary of groundwater analysis (**Appendix C, Table 1**);
- A review of Areas of Critical Concern and Endangered and Threatened Species (**Appendix D**);
- A review of National Historic Places (**Appendix E**); and





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- Best Management Practice Plan (**Appendix F**)

We trust that the above satisfies your present requirements. Should you have any questions or comments concerning the above, please do not hesitate to contact us.

Very truly yours,

McPHAIL ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Alison L. Dadona".

Alison L. Dadona

A handwritten signature in black ink, appearing to read "Joseph G. Lombardo Jr.".

Joseph G. Lombardo Jr., L.S.P.

Enclosures

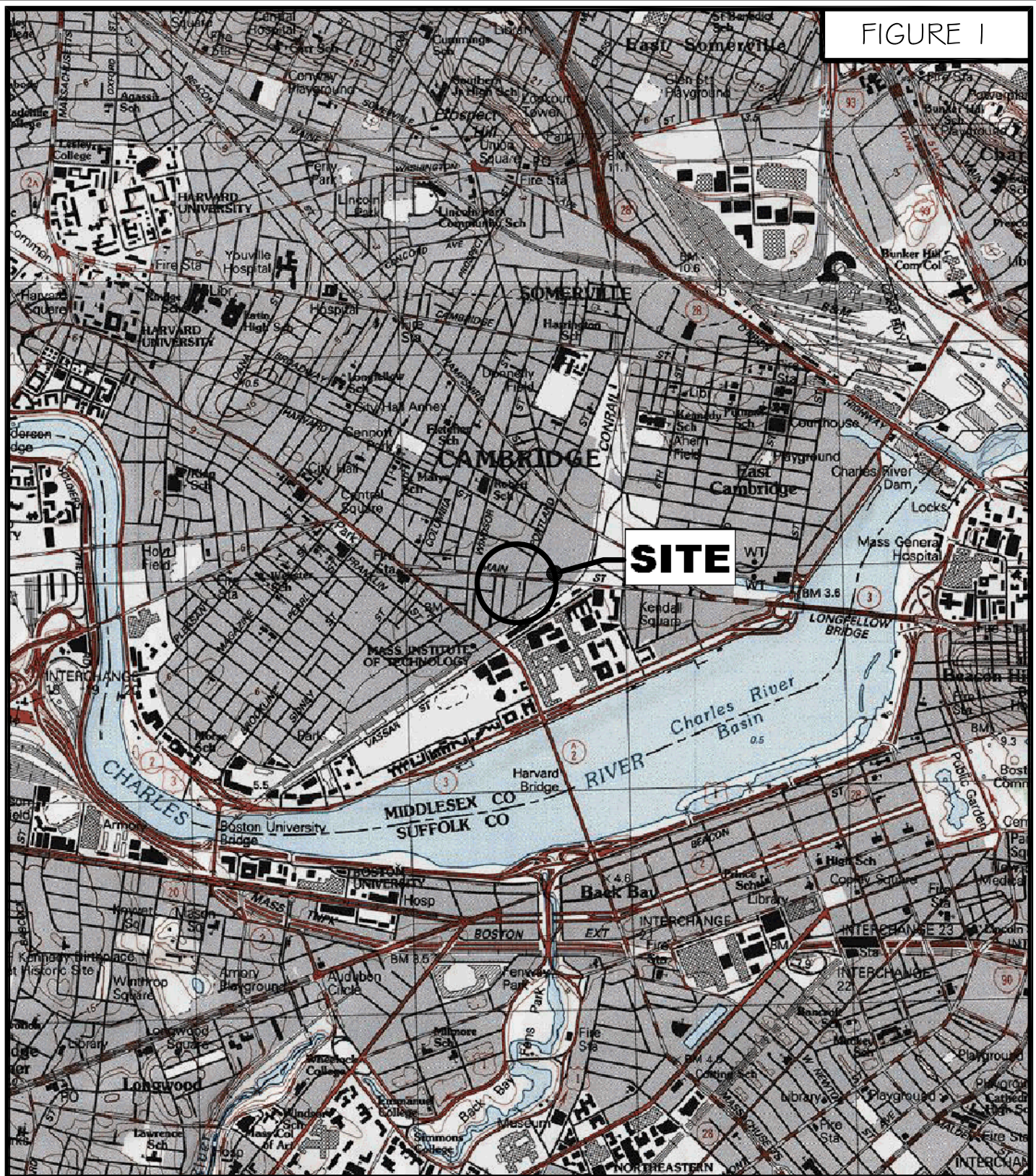
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ALD/jgl

cc: 650 Main Street Leasehold LLC

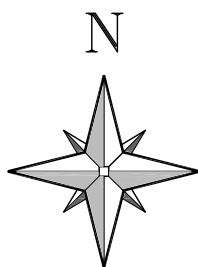


FIGURE 1



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2269 Massachusetts Avenue  
Cambridge, MA 02140  
617/868-1420  
617/868-1423 (Fax)



SCALE 1:25,000

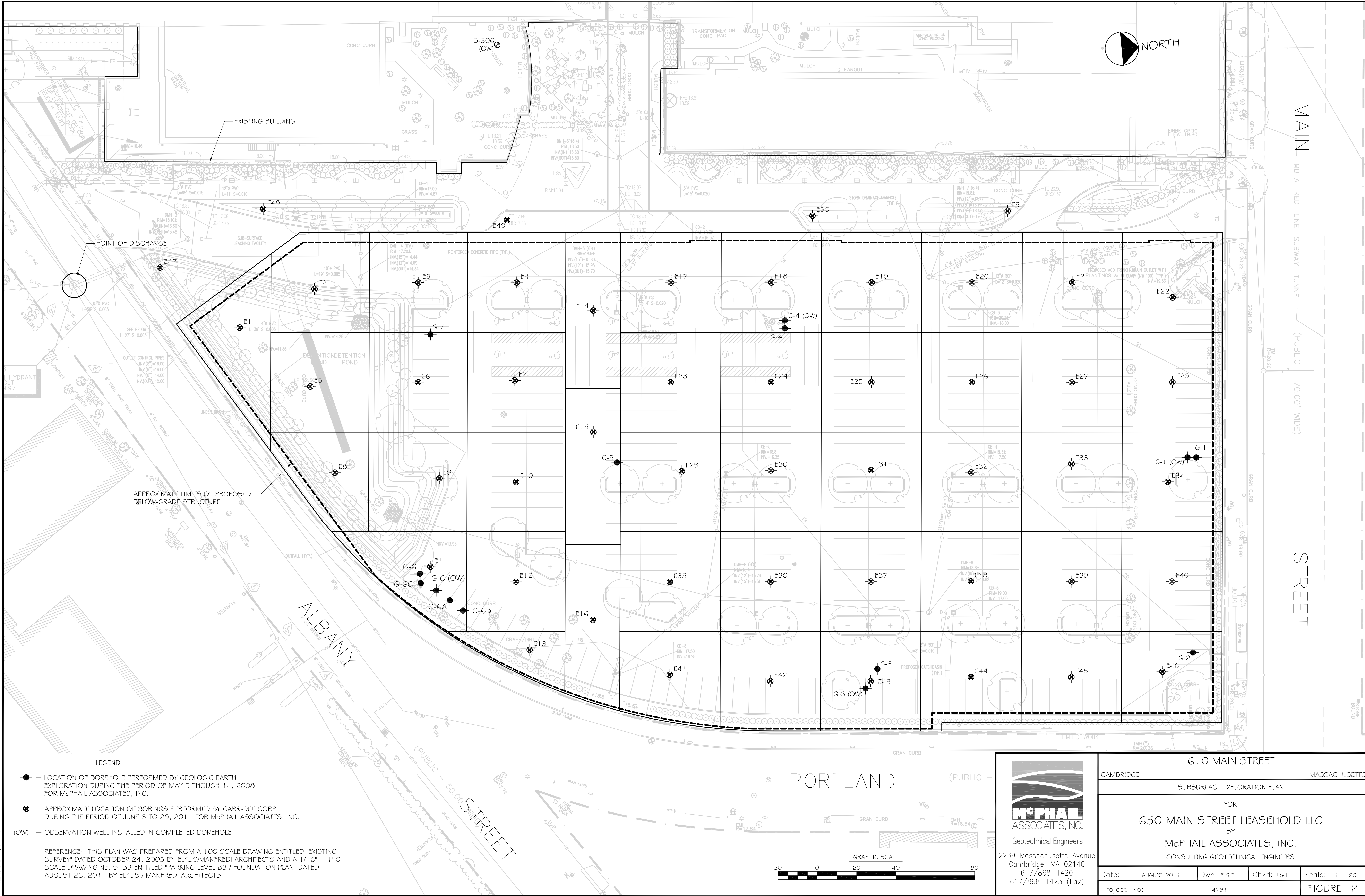
## PROJECT LOCATION PLAN

610 MAIN STREET

CAMBRIDGE

MASSACHUSETTS





FILE NAME: 4781-FIG23

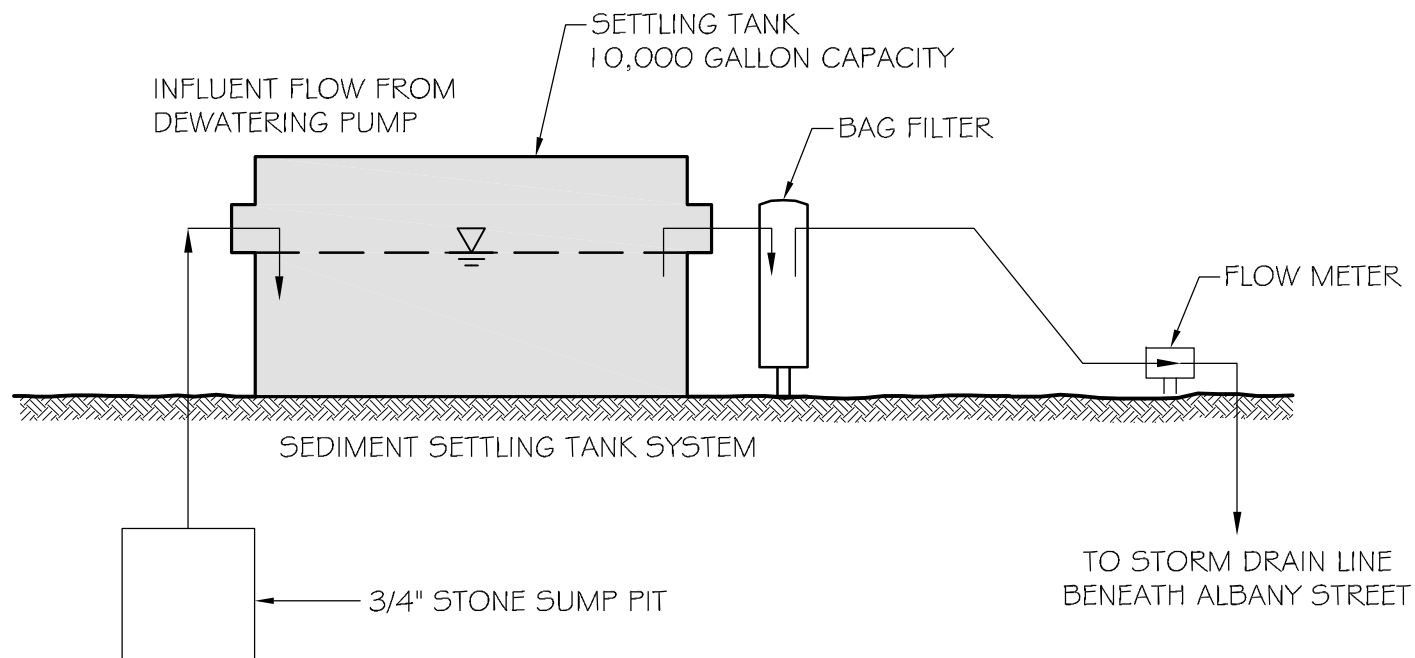
REFERENCE: THIS PLAN WAS PREPARED FROM A 100-SCALE DRAWING ENTITLED "EXISTING SURVEY" DATED OCTOBER 24, 2005 BY ELKUS/MANFREDI ARCHITECTS AND A 1/16" = 1'-0" SCALE DRAWING No. 91B3 ENTITLED "PARKING LEVEL B3 / FOUNDATION PLAN" DATED AUGUST 26, 2011 BY ELKUS / MANFREDI ARCHITECTS.



**McPHAIL ASSOCIATES, INC.**  
Geotechnical Engineers  
2269 Massachusetts Avenue  
Cambridge, MA 02140  
617/868-1420  
617/868-1423 (Fax)

CAMBRIDGE MASSACHUSETTS			
SUBSURFACE EXPLORATION PLAN			
FOR 650 MAIN STREET LEASEHOLD LLC BY McPHAIL ASSOCIATES, INC. CONSULTING GEOTECHNICAL ENGINEERS			
Date: AUGUST 2011	Dwn: F.G.P.	Chkd: J.G.L.	Scale: 1" = 20'
Project No: 4781	FIGURE 2		

FIGURE 3



Geotechnical Engineers

2269 Massachusetts Avenue  
Cambridge, MA 02140  
617/868-1420  
617/868-1423 (Fax)

610 MAIN STREET

CAMBRIDGE

MASSACHUSETTS

SCHEMATIC OF WATER FLOW

FOR

650 MAIN STREET LEASEHOLD LLC

BY

McPHAIL ASSOCIATES, INC.

CONSULTING GEOTECHNICAL ENGINEERS

Date: SEPTEMBER 2011

Dwn: I.J.M.

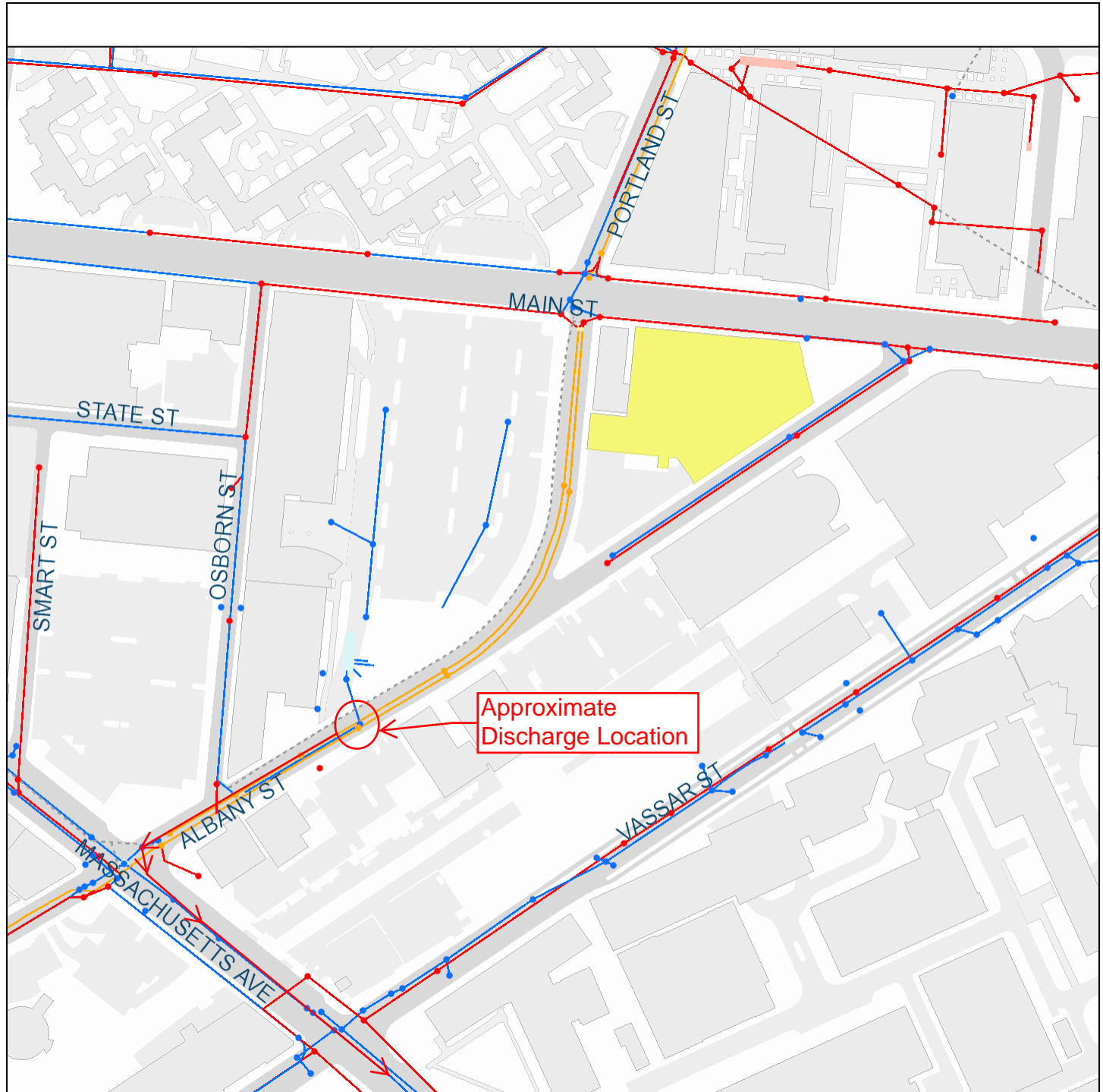
Chkd: A.L.D.

Scale: N.T.S.

Project No:

4781



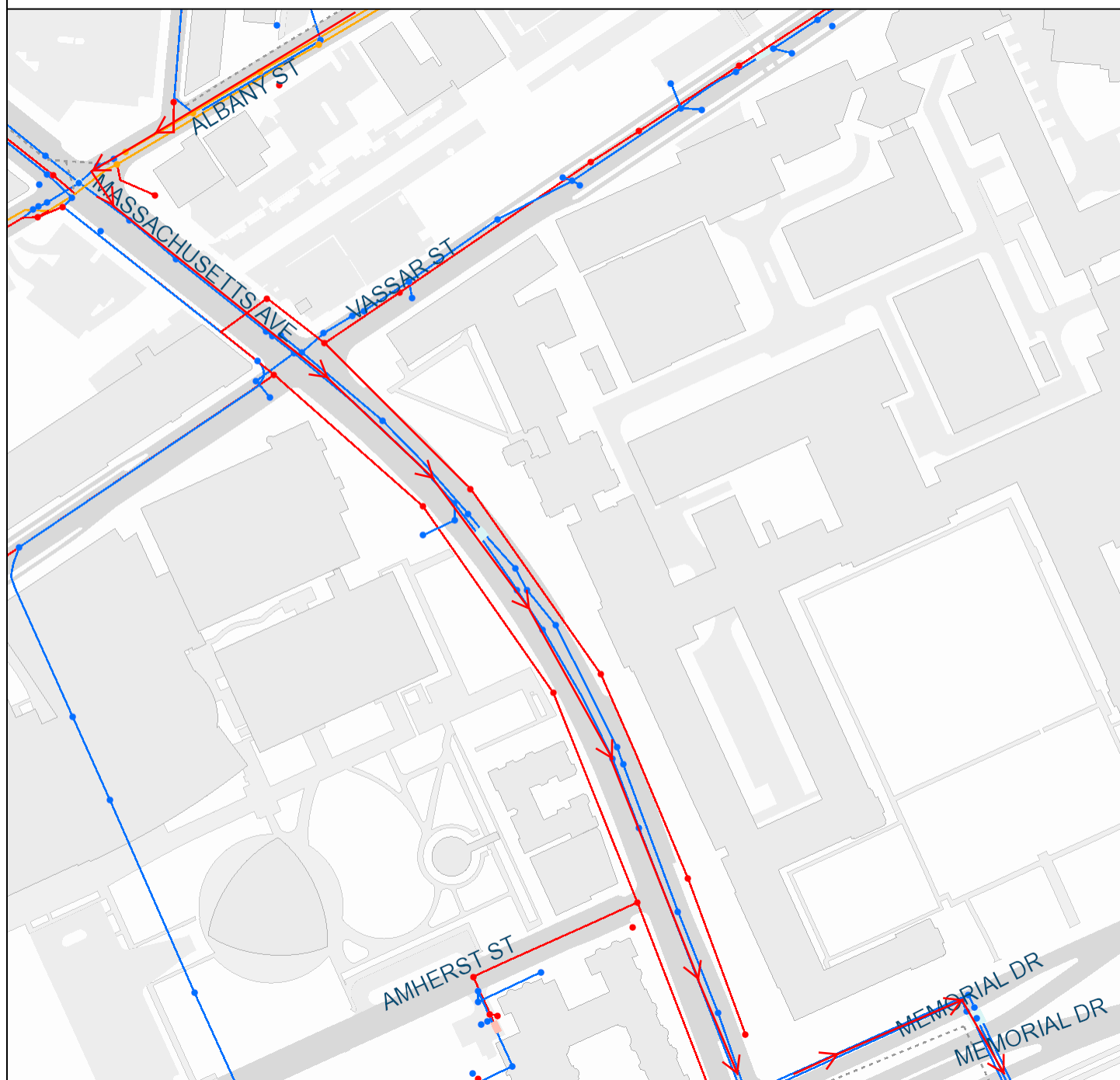


City of Cambridge  
Massachusetts

1" = 202 ft

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- Gravity Main  
 — Stormwater  
 — Sewage  
 — Combined Sewage  
 - - - Abandoned
- Zoom Three Paved Surfaces  
 ■ Paved Roads  
 ■ Paved Parking  
 ■ Bridges  
 ■ Public Footpath



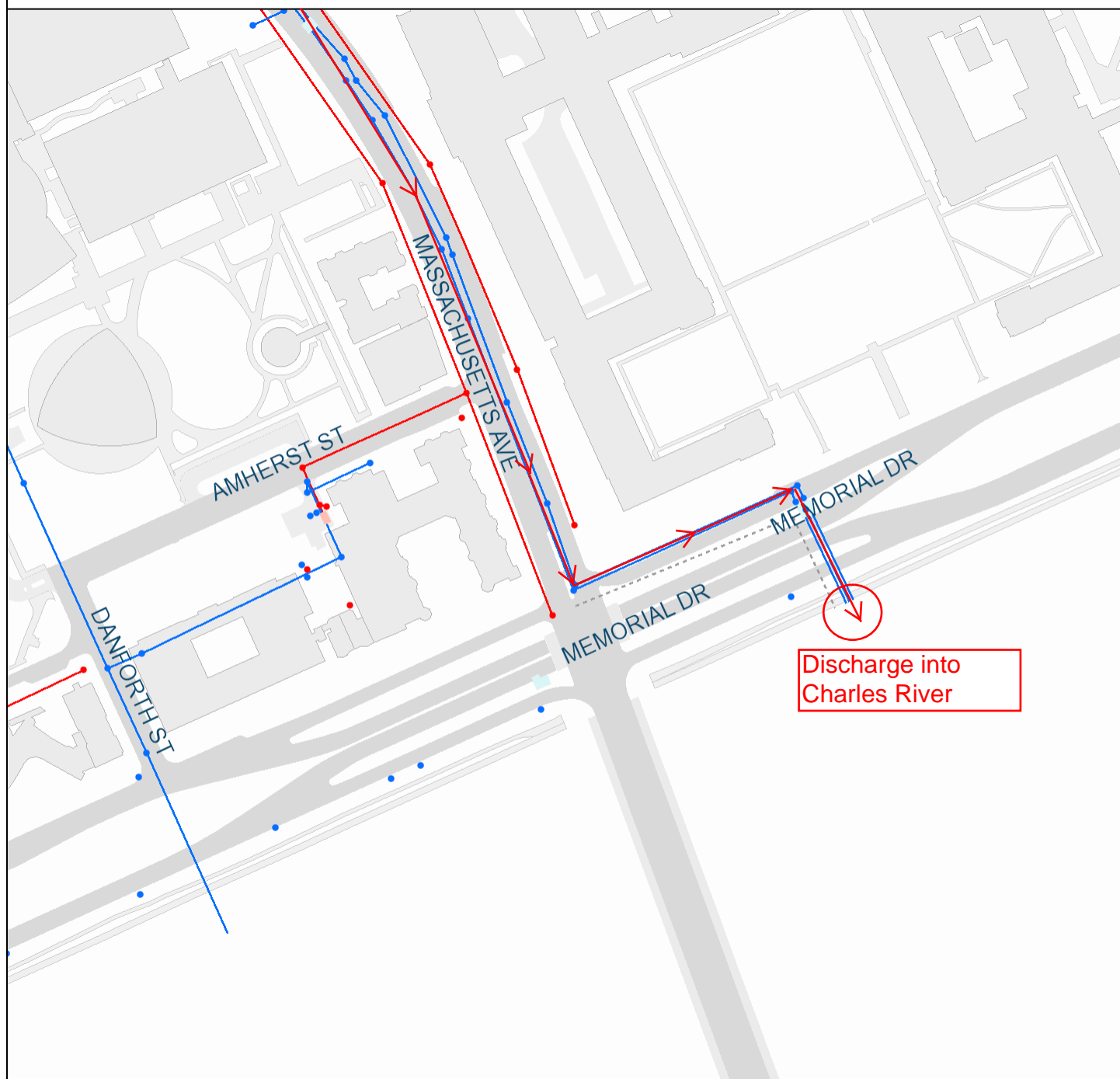
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- Gravity Main  
— Stormwater  
— Sewage  
— Combined Sewage  
--- Abandoned
- Zoom Three Paved Surfaces  
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City of Cambridge  
Massachusetts

1" = 202 ft

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Gravity Mai  
— Stormwater  
— Sewage  
— Combined Sewage  
--- Abandoned  
Zoom Three Paved Surfaces  
■ Paved Roads  
■ Paved Parking  
■ Bridges  
■ Public Footpath



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## **APPENDIX A**

### **LIMITATIONS**

The purpose of this report is to present the results of testing of groundwater samples obtained from groundwater monitoring wells located at 610 Main Street in Cambridge, Massachusetts, in support of an application for approval of temporary construction site dewatering discharge into surface waters of the Commonwealth of Massachusetts under the US EPA's Massachusetts Remedial General Permit MAG910000.

The observations were made under the conditions stated in this report. The conclusions presented above were based on these observations. If variations in the nature and extent of subsurface conditions between the specific subsurface explorations that were performed become evident in the future, it may be necessary to re-evaluate the conclusions presented herein after performing on-site observations and noting the characteristics of any variations.

The conclusions submitted in this report are based in part upon analytical test data obtained from analysis of groundwater samples, and are contingent upon their validity. The data have been reviewed, and interpretations have been made in the text. It should also be noted that fluctuations in the types and levels of contaminants and variations in their flow paths may occur due to changes in seasonal water table, past practices used in disposal and other factors.

Analytical analyses have been performed for specific constituents during the course of this site assessment, as described in the text. However, it should be noted that additional constituents not searched for during the current study may be present in soil and/or groundwater at the site.

This report and application have been prepared on behalf of and for the exclusive use of 650 Main Street Leasehold LLC. This report and the findings contained herein shall not, in whole or in part, be disseminated or conveyed to any other party except relevant governmental agencies associated with the subject permit application, nor used in whole or in part by any other party, without the prior written consent of McPhail Associates, Inc.





## **APPENDIX B**

### **Notice of Intent Transmittal Form**

**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> : 610 Main Street		<b>Facility/site</b> mailing address:	
Location of <b>facility/site</b> :	Facility SIC code(s):	Street:	
longitude: -71.09413		610 Main Street	
latitude: 42.36301			
b) Name of <b>facility/site owner</b> :		Town: Cambridge	
Email address of facility/site owner:		State:	Zip:
mmccaffrey@mitimco.org		MA	02139
Telephone no. of facility/site <b>owner</b> : 617-452-3039		County: Middlesex	
Fax no. of facility/site <b>owner</b> :		<b>Owner</b> is (check one): 1. Federal <input type="radio"/> 2. State/Tribal <input type="radio"/>	
Address of <b>owner</b> (if different from site):		3. Private <input checked="" type="radio"/> 4. Other <input type="radio"/> if so, describe:	
		650 Main St Leasehold LLC	
Street: 238 Main Street, Suite 200			
Town: Cambridge	State: MA	Zip: 02142-1012	County: Middlesex
c) Legal name of <b>operator</b> :		<b>Operator</b> telephone no: 781-858-8791	
John Moriarty & Associates		<b>Operator</b> fax no.: 781-729-8456	<b>Operator</b> email: dhartford@jm-a.com
<b>Operator</b> contact name and title: David Hartford, Project Manager			
Address of <b>operator</b> (if different from owner):		Street:	
		3 Church Street	
Town: Winchester	State: MA	Zip: 01890	County: Middlesex



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)?		
1	Max. flow	0.223	Is maximum flow a <b>design value</b> ? Y <input type="radio"/> N <input checked="" type="radio"/>
	Average flow (include units)	0.078 ft <sup>3</sup> /s	Is average flow a design value or estimate? <input type="text" value="estimate"/>
3) Latitude and longitude of each discharge within 100 feet:			
pt.1: lat.	42.348	long.	-71.133
pt.2: lat.		long.	
pt.3: lat.		long.	
pt.4: lat.		long.	
pt.5: lat.		long.	
pt.6: lat.		long.	
pt.7: lat.		long.	
pt.8: lat.		long.	
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"/> ?	
		Is discharge ongoing? Y <input type="radio"/> N <input type="radio"/>	
c) Expected dates of discharge (mm/dd/yy): start Sep 28, 2011 end Oct 31, 2013			
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).			
Please refer to the attached report			



**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 type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab			40,000	7.64	27,500	5.25
2. Total Residual Chlorine (TRC)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab		20	ND			
3. Total Petroleum Hydrocarbons (TPH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab		4,000	ND			
4. Cyanide (CN)	57125	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab		5	ND			
5. Benzene (B)	71432	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1	ND			
6. Toluene (T)	108883	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1	ND			
7. Ethylbenzene (E)	100414	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1	ND			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	2	ND			
9. Total BTEX <sup>2</sup>	n/a	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab			ND			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) <sup>3</sup>	106934	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	14,504.1	0.01	ND			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	0.02	ND			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	0.1	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"/>	3	grab	5,624	0.02	ND			
14. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
15. Carbon Tetrachloride	56235	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.0	ND			
16. 1,2 Dichlorobenzene (o-DCB)	95501	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	5.0	ND			
17. 1,3 Dichlorobenzene (m-DCB)	541731	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	5.0	ND			
18. 1,4 Dichlorobenzene (p-DCB)	106467	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	5.0	ND			
18a. Total dichlorobenzene		<input type="checkbox"/>	<input type="checkbox"/>	N/A							
19. 1,1 Dichloroethane (DCA)	75343	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.5	ND			
20. 1,2 Dichloroethane (DCA)	107062	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.5	ND			
21. 1,1 Dichloroethene (DCE)	75354	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.0	ND			
22. cis-1,2 Dichloroethene (DCE)	156592	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	5,624		1.6	0.000306	0.87	0.00017
23. Methylene Chloride	75092	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	5.0	ND			
24. Tetrachloroethene (PCE)	127184	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.5	ND			
25. 1,1,1 Trichloro-ethane (TCA)	71556	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	2.0	ND			
26. 1,1,2 Trichloro-ethane (TCA)	79005	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.5	ND			
27. Trichloroethene (TCE)	79016	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	1.0	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"/>	3	grab	5,624	2.0	ND			
29. Acetone	67641	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	10	ND			
30. 1,4 Dioxane	123911	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,624	2	ND			
31. Total Phenols	108952	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	4,420.1		50	0.00955	26.7	0.0051
32. Pentachlorophenol (PCP)	87865	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.8	ND			
33. Total Phthalates (Phthalate esters) <sup>4</sup>		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C	5	ND			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C	3	ND			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab			ND			
a. Benzo(a) Anthracene	56553	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
b. Benzo(a) Pyrene	50328	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
c. Benzo(b)Fluoranthene	205992	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
d. Benzo(k)Fluoranthene	207089	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
e. Chrysene	21801	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
f. Dibenzo(a,h)anthracene	53703	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
g. Indeno(1,2,3-cd) Pyrene	193395	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab			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"/>	3	grab	1,8270C-SIM	0.2	ND			
i. Acenaphthylene	208968	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
j. Anthracene	120127	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
k. Benzo(ghi) Perylene	191242	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
l. Fluoranthene	206440	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
m. Fluorene	86737	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
n. Naphthalene	91203	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
o. Phenanthrene	85018	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
p. Pyrene	129000	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,8270C-SIM	0.2	ND			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	5,608	0.25	ND			
38. Chloride	16887006	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab			960,000	183.42	733,300	140.11
39. Antimony	7440360	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,6020	1.0	ND			
40. Arsenic	7440382	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		19.8	0.00378	7.02	0.00134
41. Cadmium	7440439	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		2.6	0.00050	1.4	0.00027
42. Chromium III (trivalent)	16065831	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		0.7	0.00013	0.48	0.00009
43. Chromium VI (hexavalent)	18540299	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	30,3500CR-D	10	ND			
44. Copper	7440508	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		1.4	0.00027	1.1	0.00021
45. Lead	7439921	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		10.2	0.00195	4.82	0.00092
46. Mercury	7439976	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,6020	0.2	ND			
47. Nickel	7440020	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		7.6	0.001	4.37	0.00083
48. Selenium	7782492	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		3	0.001	1.83	0.00035
49. Silver	7440224	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3	grab	1,6020	0.4	ND			
50. Zinc	7440666	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		194.8	0.037	93.2	0.01781
51. Iron	7439896	<input type="checkbox"/>	<input checked="" type="checkbox"/>	3	grab	1,6020		25	0.005	17.2	0.00329
Other (describe):		<input checked="" type="checkbox"/>	<input type="checkbox"/>								

<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>
		<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>arsenic, cadmium, lead, zinc and iron</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: arsenic</td> <td>DF: &gt;100</td> </tr> <tr> <td>Metal: cadmium</td> <td>DF: &gt;100</td> </tr> <tr> <td>Metal: zinc</td> <td>DF: &gt;100</td> </tr> <tr> <td>Metal: iron</td> <td>DF: &gt;100</td> </tr> <tr> <td>Etc.</td> <td></td> </tr> </table>	Metal: arsenic	DF: >100	Metal: cadmium	DF: >100	Metal: zinc	DF: >100	Metal: iron	DF: >100	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: arsenic	DF: >100										
Metal: cadmium	DF: >100										
Metal: zinc	DF: >100										
Metal: iron	DF: >100										
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:						
10,000-gallon settling tank, bag filter						
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 type="checkbox"/>	Equalization tanks <input type="checkbox"/>	Bag filter <input checked="" type="checkbox"/>	GAC filter <input type="checkbox"/>
	Chlorination <input type="checkbox"/>	De-chlorination <input type="checkbox"/>	Other (please describe):			

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:

Discharge into storm drain which runs along Albany Street that ultimately discharges to the Charles River. Please refer to attached report for further details and plan

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)?

chlorophyll-a, combined biota/habitat bioassessments, DDT, dissolved oxygen, excess algal growth, oil and grease, secchi disk transparency, nutrient/eutrophication biological indicators, phosphorus, PCB in fish tissue

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.

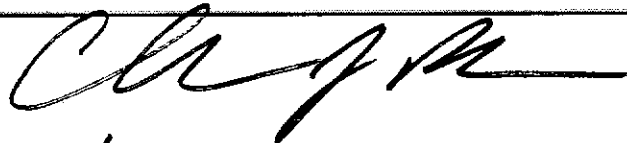
**7. Supplemental information.**

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

Please refer to attached report

**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:	610 Main Street, Cambridge, MA	
Operator signature:		
Printed Name & Title:	Christopher J Brown      Sr. Vice President	
Date:	9/21/11	



Geotechnical Engineers

## APPENDIX C

### RESULTS OF GROUNDWATER ANALYSIS

On July 7, 2011, a representative of McPhail Associates, Inc. obtained groundwater samples from groundwater monitoring wells G-1(OW), G-4(OW) and G-6(OW). The groundwater samples did not exhibit the presence of a sheen or other visual or olfactory evidence of petroleum contamination. The samples were sent to a certified laboratory and analyzed for the presence of compounds required under the RGP application, including pH, total suspended solids (TSS), total residual chlorine, total petroleum hydrocarbons (TPH), total cyanide, volatile organic compounds (VOCs) including total benzene, toluene, ethylbenzene and xylenes (BTEX), pesticides, PCBs, semi-volatile organic compounds (SVOCs) including total phenols and total phthalates, and total recoverable metals. The location of the groundwater monitoring wells is shown on **Figure 2**. The results of the July 2011 analysis are summarized in **Table 1**.

In summary, with the exception of iron, lead and zinc, the analytical results of groundwater samples from the site did not indicate the presence of the above mentioned compounds at concentrations which exceed the effluent limits established by the RGP Permit for the discharge into a freshwater body.

Results for iron were 20.0 milligrams per liter (mg/l), 6.7 mg/l and 25 mg/l, for samples G-1(OW), G-4(OW), and G-6(OW), respectively. The RGP limit for iron is 1.0 mg/l, however, based on a calculation of the Dilution Factor the RGP limit for iron is 5.0 mg/l. Therefore, the levels of iron detected are in excess of the RGP limit. Results for lead were Not Detected, 0.004 mg/l and 0.0102 mg/l, for samples G-1(OW), G-4(OW), and G-6(OW), respectively. The RGP limit for lead is 0.0013 mg/l, however based on a calculation of the applicable Dilution Factor, the applicable RGP limit is 0.132 mg/l. Therefore, the levels of lead detected are below the RGP limits. Results for zinc were 0.0731 mg/l, 0.1948 mg/l and 0.0116 mg/l, for samples G-1(OW), G-4(OW), and G-6(OW), respectively. The RGP limit for zinc is 0.0666 mg/l, however based on a calculation of the applicable Dilution Factor, the applicable RGP limit for zinc is 1.48 mg/l. Therefore, the levels of zinc detected are below the RGP limits. Given that elevated levels of TSS were detected in the samples, the concentrations of iron were considered attributable to the presence of soil particles in the tested samples.

Based on previous analysis, the concentration of total lead in sample G-6(OW) was 0.0102 mg/l which is above the RCGW-2 reporting limit of 0.01 mg/l as contained in the MCP. On August 23, 2011, a representative of McPhail Associates, Inc. obtained a second groundwater sample from groundwater monitoring well G-6(OW). The groundwater sample did not exhibit the presence of a sheen or other visual or olfactory evidence of petroleum contamination, and was sent to a certified laboratory to be analyzed for the presence of dissolved lead to further assess the nature of lead detected in the initial sample. The results identified the presence of dissolved lead in sample G-6(OW) at a concentration below the laboratory method detection limits. Therefore, the initial concentration of total lead detected is considered attributable to the elevated level of TSS in the initial sample. The location of the groundwater monitoring





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wells is shown on **Figure 2**.

Laboratory test results are summarized in **Table 1** and laboratory data is attached. The results of analytical testing indicate the following:

1. **pH:** The tested samples exhibited a level of 6.5 to 6.8 Standard Units (S.U.). The recommended range for pH discharge is 6.5 to 8.3 S.U.
2. **TSS:** Two of the tested samples exhibited concentrations of TSS at 40 milligrams per liter (mg/l). The third sample had a concentration of TSS less than 5 mg/l. The limit established by the US EPA for discharge into surface water is 30 mg/l. The detected levels of TSS are considered to be attributable to the disturbance of suspended solids in the monitoring wells during development of the well and subsequent sampling. However, it should be noted that groundwater will be pre-treated by passing the influent through a 10,000 gallon settling tank and a bag filter prior to discharge in order to reduce the concentration of TSS in the effluent.
3. **VOCs:** The groundwater samples indicated no detected levels of the target VOCs, with the exception of cis-1,2-Dichloroethene in sample G-1(OW). The concentration of cis-1,2-Dichloroethene detected was 0.0016 mg/l, which is below the RGP effluent limit of 0.07 mg/l. Therefore, the total detected level of cis-1,2-Dichloroethene is below the RGP limit for discharge into freshwater.
4. **TPH:** Laboratory analysis of the groundwater samples indicated no detectable levels of TPH.
5. **PAHs and SVOCs:** Laboratory analysis of the groundwater samples indicated no detectable levels of PAHs or SVOCs.
6. **PCBs:** The laboratory results indicated no detectable levels of PCBs.
7. **Cyanide:** The laboratory results indicated no detectable level of cyanide.
8. **Total Metals:** The laboratory reported no detectable levels of antimony, chromium VI, mercury and silver. Levels of chromium III, copper, nickel and selenium were detected at concentrations below RGP discharge limits. Concentrations of arsenic, cadmium, lead and zinc were detected at levels above RGP effluent limits, however based on a calculation of Dilution Factors, the concentrations are below the revised applicable RGP limits.

The detected concentrations of iron were 20 mg/l, 6.7 mg/l, and 25 mg/l for samples G-1(OW), G-4(OW) and G-6(OW), respectively. The RGP limit for iron is 1 mg/l, however with the applied Dilution Factor the RGP limit for iron is 5 mg/l. Therefore, the concentration of iron is in excess of the RGP limits for discharge into freshwater.



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The results of analytical analysis for the total metals in conjunction with the elevated level of Total Suspended Solids in samples G-1(OW) and G-6(OW), suggest that the elevated level of total iron is attributable to the presence of soil particles in the tested samples. As noted above, TSS reduction measures will be implemented prior to discharge to reduce the concentration of TSS and thus the iron concentration in the effluent.

Table 1  
Analytical Results-Groundwater  
(RGP Application)

610 Main Street  
Cambridge, MA  
Job # 4781

LOCATION		RCGW-2-08	RGP Limits	RGP Limits with DF	Units	G-1 (OW)	G-4 (OW)	G-6 (OW)	G-6(OW)
SAMPLING DATE						07-JUL-11	07-JUL-11	07-JUL-11	8/23/2011
LAB SAMPLE ID						L1110053-01	L1110053-02	L1110053-03	L1113083-01
1	Total Suspended Solids		30		mg/l	40	ND(5)	40	
	pH (H)		6.5-8.3		SU	6.8	6.5	6.8	
2	Total Residual Chlorine (freshwater)		0.011		mg/l	ND(0.02)	ND(0.02)	ND(0.02)	
3	TPH	5	5		mg/l	ND(4)	ND(4)	ND(4)	
4	Total Cyanide (freshwater)	0.03	0.0052		mg/l	ND(0.005)	ND(0.005)	ND(0.005)	
5	Benzene	2	Total BTEX		mg/l	ND(0.001)	ND(0.001)	ND(0.001)	
6	Toluene	40	Total BTEX		mg/l	ND(0.001)	ND(0.001)	ND(0.001)	
7	Ethylbenzene	5	Total BTEX		mg/l	ND(0.001)	ND(0.001)	ND(0.001)	
8	Xylene (Total)	5	Total BTEX		mg/l	ND(0.002)	ND(0.002)	ND(0.002)	
9	Total BTEX		100		mg/l	ND	ND	ND	
10	1,2-Dibromoethane	0.002	0.00005		mg/l	ND(0.00001)	ND(0.00001)	ND(0.00001)	
11	Methyl-tert-Butyl Ether (MtBE)	5	0.07		mg/l	ND(0.02)	ND(0.02)	ND(0.02)	
12	tert-Butyl Alcohol (TBA) (Tertiary Butanol)		Monitor Only		mg/l	ND(0.1)	ND(0.1)	ND(0.1)	
13	tert-Amyl Methyl Ether (TAME)		Monitor Only		mg/l	ND(0.02)	ND(0.02)	ND(0.02)	
14	Naphthalene (SVOC)	1	0.02		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
15	Carbon tetrachloride	0.002	0.0044		mg/l	ND(0.001)	ND(0.001)	ND(0.001)	
16	1,2 Dichlorobenzene (o-DCB)	2	0.6		mg/l	ND(0.005)	ND(0.005)	ND(0.005)	
17	1,3 Dichlorobenzene (m-DCB)	2	0.32		mg/l	ND(0.005)	ND(0.005)	ND(0.005)	
18	1,4 Dichlorobenzene (p-DCB)	0.2	0.005		mg/l	ND(0.005)	ND(0.005)	ND(0.005)	
19	1,1-Dichloroethane (DCA)	1	0.07		mg/l	ND(0.0015)	ND(0.0015)	ND(0.0015)	
20	1,2-Dichloroethane	0.005	0.005		mg/l	ND(0.0015)	ND(0.0015)	ND(0.0015)	
21	1,1-Dichloroethene	0.08	0.0032		mg/l	ND(0.001)	ND(0.001)	ND(0.001)	
22	cis-1,2-Dichloroethene	0.1	0.07		mg/l	0.0016	ND(0.001)	ND(0.001)	
23	Methylene Chloride	10	0.0046		mg/l	ND(0.005)	ND(0.005)	ND(0.005)	
24	Tetrachloroethene	0.05	0.005		mg/l	ND(0.0015)	ND(0.0015)	ND(0.0015)	
25	1,1,1-Trichloroethane	4	0.2		mg/l	ND(0.002)	ND(0.002)	ND(0.002)	
26	1,1,2-Trichloroethane	0.9	0.005		mg/l	ND(0.0015)	ND(0.0015)	ND(0.0015)	
27	Trichloroethene	0.03	0.005		mg/l	ND(0.001)	ND(0.001)	ND(0.001)	
28	Vinyl chloride	0.002	0.002		mg/l	ND(0.002)	ND(0.002)	ND(0.002)	
29	Acetone	50	Monitor Only		mg/l	ND(0.01)	ND(0.01)	ND(0.01)	
30	1,4 Dioxane	6	Monitor Only		mg/l	ND(2)	ND(2)	ND(2)	
31	Total Phenolics		0.3		mg/l	ND(0.03)	ND(0.03)	0.05	
32	Pentachlorophenol	0.2	0.001		mg/l	ND(0.0008)	ND(0.0008)	ND(0.0008)	
33	Total Phthalates (Phthalate esters)		0.003		mg/l	ND(0.005)	ND(0.005)	ND(0.005)	
34	Bis(2-Ethylhexyl)phthalate	50	0.006		mg/l	ND(0.003)	ND(0.003)	ND(0.003)	
35	Total Group I PAH		0.01		mg/l	ND	ND	ND	
a	Benzo(a)anthracene	1	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
b	Benzo(a)pyrene	0.5	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
c	Benzo(b)fluoranthene	0.4	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
d	Benzo(k)fluoranthene	0.1	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
e	Chrysene	0.07	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
f	Dibenzo(a,h)anthracene	0.04	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
g	Indeno(1,2,3-cd)Pyrene	0.1	0.0000038		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
36	Total Group II PAH		0.01		mg/l	ND	ND	ND	
h	Acenaphthene	6	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
i	Acenaphthylene	0.04	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
j	Anthracene	0.03	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
k	Benzo(ghi)perylene	0.02	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
l	Fluoranthene	0.2	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
m	Fluorene	0.04	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
n	Naphthalene	1	0.02		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
o	Phenanthrene	10	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
p	Pyrene	0.02	Total Group II PAH		mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
37	Total PCBs		0.00000064		mg/l	ND(0.00025)	ND(0.00025)	ND(0.00025)	
38	Chloride		Monitor Only		mg/l	690	960	550	
	Total Recoverable Metal Limits								
38	Antimony	8	0.0056	0.141	mg/l	ND(0.001)	ND(0.001)	ND(0.0005)	
39	Arsenic (freshwater)	0.9	0.01	0.54	mg/l	0.0198	0.001	ND(0.0005)	
40	Cadmium (freshwater)	0.004	0.002	0.02	mg/l	ND(0.0002)	0.0015	0.0026	
41	Chromium III (freshwater)	0.3	0.0488	1.71	mg/l	0.0005	0.0007	ND(0.0005)	
42	Chromium IV, Hexavalent (freshwater)	0.3	0.0114	1.14	mg/l	ND(0.01)	ND(0.01)	ND(0.01)	
44	Copper	100	0.0052	0.52	mg/l	0.0014	0.0013	0.0006	
45	Lead	0.01	0.0013	0.132	mg/l	ND(0.0005)	0.004	0.0102	
	Dissolved Lead	0.01			mg/l	-	-	-	ND(0.01)
46	Mercury	0.02	0.0009	0.0023	mg/l	ND(0.0002)	ND(0.0002)	ND(0.0002)	
47	Nickel	0.2	0.029	2.38	mg/l	0.0043	0.0076	0.0012	
48	Selenium	0.1	0.005	0.408	mg/l	0.003	0.002	ND(0.001)	
49	Silver	0.007	0.0012	0.115	mg/l	ND(0.0004)	ND(0.0004)	ND(0.0004)	
50	Zinc	0.9	0.0666	1.48	mg/l	0.0731	0.1948	0.0116	
51	Iron		1	5	me/l	20	6.7	25	

ND()-not detected above laboratory method detection limits

Blank-not analyzed

**Bold**-RCGW-2 exceedance

Shaded-exceedance of RGP Limit

McPhail Associates, Inc.

H:\EXCEL\JOBS\4781\RGP\RGP limits.xls

Page 1 of 1



## ANALYTICAL REPORT

Lab Number:	L1110053
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	610 MAIN ST
Project Number:	4781.9.00
Report Date:	09/20/11

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Certifications & Approvals: MA (M-MA086), NY NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 610 MAIN ST  
**Project Number:** 4781.9.00

**Lab Number:** L1110053  
**Report Date:** 09/20/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1110053-01	G-1 (OW)	CAMBRIDGE, MA	07/07/11 13:00
L1110053-02	G-4 (OW)	CAMBRIDGE, MA	07/07/11 13:00
L1110053-03	G-6 (OW)	CAMBRIDGE, MA	07/07/11 13:00
L1110053-04	TRIP BLANK	CAMBRIDGE, MA	07/07/11 00:00

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.00

**Lab Number:** L1110053  
**Report Date:** 09/20/11

### 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

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### Report Submission

This report replaces the report issued on July 18, 2011. At the client's request, the compound list for the Volatile Organics analysis has been amended.

### Sample Receipt

Trip Blanks were received in the laboratory but not listed on the Chain of Custody. At the client's request, the Trip Blanks were not analyzed.

### Volatile Organics

The WG477810-3 MS recovery, performed on L1110053-01, is below the acceptance criteria for Chloromethane (0%) due to the concentrations of this compound falling below the reported detection limit.

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.00

**Lab Number:** L1110053  
**Report Date:** 09/20/11

### Case Narrative (continued)

#### Semivolatile Organics

The WG477877-2/-3 LCS/LCSD recoveries, associated with L1110053-01, -02 and -03, were above the acceptance criteria for 2,4-Dinitrotoluene (102%/100%), P-Chloro-M-Cresol (112%/108%) and Pentachlorophenol (111%/104%); however, the associated samples were non-detect for these target compounds. The results of the original analysis are reported.

#### Metals

The WG478503-4 MS recovery for Iron (200%) , performed on L1110053-01, does not apply because the sample concentration is greater than four times the spike amount added.

#### Chloride

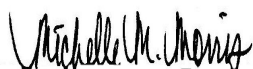
L1110053-01, -02 and -03 have elevated detection limits due to the dilutions required to quantitate the results within the calibration range.

#### Phenolics, Total

A laboratory duplicate and 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:



Michelle M. Morris

Title: Technical Director/Representative

Date: 09/20/11

# ORGANICS



# **VOLATILES**

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-01  
**Client ID:** G-1 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 07/14/11 17:28  
**Analyst:** SH

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Date:** 07/14/11 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-01  
**Client ID:** G-1 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 5,624  
**Analytical Date:** 07/08/11 08:30  
**Analyst:** TT

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane <sup>1</sup>	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	10	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene <sup>1</sup>	1.6		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

Lab ID: L1110053-01  
 Client ID: G-1 (OW)  
 Sample Location: CAMBRIDGE, MA

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene <sup>1</sup>	ND		ug/l	2.0	--	1
o-xylene <sup>1</sup>	ND		ug/l	1.0	--	1
Xylene (Total) <sup>1</sup>	ND		ug/l	2.0	--	1
Styrene <sup>1</sup>	ND		ug/l	1.0	--	1
Acetone <sup>1</sup>	ND		ug/l	10	--	1
Carbon disulfide <sup>1</sup>	ND		ug/l	5.0	--	1
2-Butanone <sup>1</sup>	ND		ug/l	10	--	1
Vinyl acetate <sup>1</sup>	ND		ug/l	20	--	1
4-Methyl-2-pentanone <sup>1</sup>	ND		ug/l	10	--	1
2-Hexanone <sup>1</sup>	ND		ug/l	10	--	1
Acrolein <sup>1</sup>	ND		ug/l	8.0	--	1
Acrylonitrile <sup>1</sup>	ND		ug/l	10	--	1
Methyl tert butyl ether <sup>1</sup>	ND		ug/l	20	--	1
Dibromomethane <sup>1</sup>	ND		ug/l	1.0	--	1
1,4-Dioxane <sup>1</sup>	ND		ug/l	2000	--	1
Tert-Butyl Alcohol <sup>1</sup>	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether <sup>1</sup>	ND		ug/l	20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	101		80-120
Fluorobenzene	94		80-120
4-Bromofluorobenzene	115		80-120



**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-02  
**Client ID:** G-4 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 07/14/11 17:43  
**Analyst:** SH

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Date:** 07/14/11 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-02  
**Client ID:** G-4 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 5,624  
**Analytical Date:** 07/08/11 09:41  
**Analyst:** TT

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane <sup>1</sup>	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	10	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene <sup>1</sup>	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

Lab ID: L1110053-02  
 Client ID: G-4 (OW)  
 Sample Location: CAMBRIDGE, MA

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene <sup>1</sup>	ND		ug/l	2.0	--	1
o-xylene <sup>1</sup>	ND		ug/l	1.0	--	1
Xylene (Total) <sup>1</sup>	ND		ug/l	2.0	--	1
Styrene <sup>1</sup>	ND		ug/l	1.0	--	1
Acetone <sup>1</sup>	ND		ug/l	10	--	1
Carbon disulfide <sup>1</sup>	ND		ug/l	5.0	--	1
2-Butanone <sup>1</sup>	ND		ug/l	10	--	1
Vinyl acetate <sup>1</sup>	ND		ug/l	20	--	1
4-Methyl-2-pentanone <sup>1</sup>	ND		ug/l	10	--	1
2-Hexanone <sup>1</sup>	ND		ug/l	10	--	1
Acrolein <sup>1</sup>	ND		ug/l	8.0	--	1
Acrylonitrile <sup>1</sup>	ND		ug/l	10	--	1
Methyl tert butyl ether <sup>1</sup>	ND		ug/l	20	--	1
Dibromomethane <sup>1</sup>	ND		ug/l	1.0	--	1
1,4-Dioxane <sup>1</sup>	ND		ug/l	2000	--	1
Tert-Butyl Alcohol <sup>1</sup>	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether <sup>1</sup>	ND		ug/l	20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	92		80-120
Fluorobenzene	91		80-120
4-Bromofluorobenzene	117		80-120

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-03  
**Client ID:** G-6 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 14,504.1  
**Analytical Date:** 07/14/11 17:59  
**Analyst:** SH

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Date:** 07/14/11 12:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	--	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--	1



**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-03  
**Client ID:** G-6 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 5,624  
**Analytical Date:** 07/08/11 10:17  
**Analyst:** TT

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	--	1
1,1-Dichloroethane	ND		ug/l	1.5	--	1
Chloroform	ND		ug/l	1.5	--	1
Carbon tetrachloride	ND		ug/l	1.0	--	1
1,2-Dichloropropane <sup>1</sup>	ND		ug/l	3.5	--	1
Dibromochloromethane	ND		ug/l	1.0	--	1
1,1,2-Trichloroethane	ND		ug/l	1.5	--	1
2-Chloroethylvinyl ether	ND		ug/l	10	--	1
Tetrachloroethene	ND		ug/l	1.5	--	1
Chlorobenzene	ND		ug/l	3.5	--	1
Trichlorofluoromethane	ND		ug/l	5.0	--	1
1,2-Dichloroethane	ND		ug/l	1.5	--	1
1,1,1-Trichloroethane	ND		ug/l	2.0	--	1
Bromodichloromethane	ND		ug/l	1.0	--	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	--	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	--	1
Bromoform	ND		ug/l	1.0	--	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--	1
Benzene	ND		ug/l	1.0	--	1
Toluene	ND		ug/l	1.0	--	1
Ethylbenzene	ND		ug/l	1.0	--	1
Chloromethane	ND		ug/l	10	--	1
Bromomethane	ND		ug/l	5.0	--	1
Vinyl chloride	ND		ug/l	2.0	--	1
Chloroethane	ND		ug/l	2.0	--	1
1,1-Dichloroethene	ND		ug/l	1.0	--	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	--	1
cis-1,2-Dichloroethene <sup>1</sup>	ND		ug/l	1.0	--	1
Trichloroethene	ND		ug/l	1.0	--	1
1,2-Dichlorobenzene	ND		ug/l	5.0	--	1
1,3-Dichlorobenzene	ND		ug/l	5.0	--	1

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

Lab ID: L1110053-03  
 Client ID: G-6 (OW)  
 Sample Location: CAMBRIDGE, MA

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,4-Dichlorobenzene	ND		ug/l	5.0	--	1
p/m-Xylene <sup>1</sup>	ND		ug/l	2.0	--	1
o-xylene <sup>1</sup>	ND		ug/l	1.0	--	1
Xylene (Total) <sup>1</sup>	ND		ug/l	2.0	--	1
Styrene <sup>1</sup>	ND		ug/l	1.0	--	1
Acetone <sup>1</sup>	ND		ug/l	10	--	1
Carbon disulfide <sup>1</sup>	ND		ug/l	5.0	--	1
2-Butanone <sup>1</sup>	ND		ug/l	10	--	1
Vinyl acetate <sup>1</sup>	ND		ug/l	20	--	1
4-Methyl-2-pentanone <sup>1</sup>	ND		ug/l	10	--	1
2-Hexanone <sup>1</sup>	ND		ug/l	10	--	1
Acrolein <sup>1</sup>	ND		ug/l	8.0	--	1
Acrylonitrile <sup>1</sup>	ND		ug/l	10	--	1
Methyl tert butyl ether <sup>1</sup>	ND		ug/l	20	--	1
Dibromomethane <sup>1</sup>	ND		ug/l	1.0	--	1
1,4-Dioxane <sup>1</sup>	ND		ug/l	2000	--	1
Tert-Butyl Alcohol <sup>1</sup>	ND		ug/l	100	--	1
Tertiary-Amyl Methyl Ether <sup>1</sup>	ND		ug/l	20	--	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	92		80-120
Fluorobenzene	91		80-120
4-Bromofluorobenzene	115		80-120

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 5,624

Analytical Date: 07/08/11 07:19

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-03 Batch: WG477279-8					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane <sup>1</sup>	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	10	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	2.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene <sup>1</sup>	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 5,624

Analytical Date: 07/08/11 07:19

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02-03 Batch: WG477279-8					
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene <sup>1</sup>	ND		ug/l	2.0	--
o-xylene <sup>1</sup>	ND		ug/l	1.0	--
Xylene (Total) <sup>1</sup>	ND		ug/l	2.0	--
Styrene <sup>1</sup>	ND		ug/l	1.0	--
Acetone <sup>1</sup>	ND		ug/l	10	--
Carbon disulfide <sup>1</sup>	ND		ug/l	5.0	--
2-Butanone <sup>1</sup>	ND		ug/l	10	--
Vinyl acetate <sup>1</sup>	ND		ug/l	20	--
4-Methyl-2-pentanone <sup>1</sup>	ND		ug/l	10	--
2-Hexanone <sup>1</sup>	ND		ug/l	10	--
Acrolein <sup>1</sup>	ND		ug/l	8.0	--
Acrylonitrile <sup>1</sup>	ND		ug/l	10	--
Methyl tert butyl ether <sup>1</sup>	ND		ug/l	20	--
Dibromomethane <sup>1</sup>	ND		ug/l	1.0	--
1,4-Dioxane <sup>1</sup>	ND		ug/l	2000	--
Tert-Butyl Alcohol <sup>1</sup>	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether <sup>1</sup>	ND		ug/l	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		80-120
Fluorobenzene	95		80-120
4-Bromofluorobenzene	118		80-120

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 5,624

Analytical Date: 07/08/11 07:19

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477810-2					
Methylene chloride	ND		ug/l	5.0	--
1,1-Dichloroethane	ND		ug/l	1.5	--
Chloroform	ND		ug/l	1.5	--
Carbon tetrachloride	ND		ug/l	1.0	--
1,2-Dichloropropane <sup>1</sup>	ND		ug/l	3.5	--
Dibromochloromethane	ND		ug/l	1.0	--
1,1,2-Trichloroethane	ND		ug/l	1.5	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	1.5	--
Chlorobenzene	ND		ug/l	3.5	--
Trichlorofluoromethane	ND		ug/l	5.0	--
1,2-Dichloroethane	ND		ug/l	1.5	--
1,1,1-Trichloroethane	ND		ug/l	2.0	--
Bromodichloromethane	ND		ug/l	1.0	--
trans-1,3-Dichloropropene	ND		ug/l	1.5	--
cis-1,3-Dichloropropene	ND		ug/l	1.5	--
Bromoform	ND		ug/l	1.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	--
Benzene	ND		ug/l	1.0	--
Toluene	ND		ug/l	1.0	--
Ethylbenzene	ND		ug/l	1.0	--
Chloromethane	ND		ug/l	10	--
Bromomethane	ND		ug/l	5.0	--
Vinyl chloride	ND		ug/l	2.0	--
Chloroethane	ND		ug/l	2.0	--
1,1-Dichloroethene	ND		ug/l	1.0	--
trans-1,2-Dichloroethene	ND		ug/l	1.5	--
cis-1,2-Dichloroethene <sup>1</sup>	ND		ug/l	1.0	--
Trichloroethene	ND		ug/l	1.0	--
1,2-Dichlorobenzene	ND		ug/l	5.0	--
1,3-Dichlorobenzene	ND		ug/l	5.0	--



Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 5,624

Analytical Date: 07/08/11 07:19

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG477810-2					
1,4-Dichlorobenzene	ND		ug/l	5.0	--
p/m-Xylene <sup>1</sup>	ND		ug/l	2.0	--
o-xylene <sup>1</sup>	ND		ug/l	1.0	--
Xylene (Total) <sup>1</sup>	ND		ug/l	2.0	--
Styrene <sup>1</sup>	ND		ug/l	1.0	--
Acetone <sup>1</sup>	ND		ug/l	10	--
Carbon disulfide <sup>1</sup>	ND		ug/l	5.0	--
2-Butanone <sup>1</sup>	ND		ug/l	10	--
Vinyl acetate <sup>1</sup>	ND		ug/l	20	--
4-Methyl-2-pentanone <sup>1</sup>	ND		ug/l	10	--
2-Hexanone <sup>1</sup>	ND		ug/l	10	--
Acrolein <sup>1</sup>	ND		ug/l	8.0	--
Acrylonitrile <sup>1</sup>	ND		ug/l	10	--
Methyl tert butyl ether <sup>1</sup>	ND		ug/l	20	--
Dibromomethane <sup>1</sup>	ND		ug/l	1.0	--
1,4-Dioxane <sup>1</sup>	ND		ug/l	2000	--
Tert-Butyl Alcohol <sup>1</sup>	ND		ug/l	100	--
Tertiary-Amyl Methyl Ether <sup>1</sup>	ND		ug/l	20	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	102		80-120
Fluorobenzene	95		80-120
4-Bromofluorobenzene	118		80-120

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**Method Blank Analysis**  
**Batch Quality Control****Analytical Method:** 14,504.1**Analytical Date:** 07/14/11 16:11**Analyst:** SH**Extraction Date:** 07/14/11 12:00

Parameter	Result	Qualifier	Units	RL	MDL
Pesticides by GC - Westborough Lab for sample(s): 01-03 Batch: WG478957-1					
1,2-Dibromoethane	ND		ug/l	0.010	--
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	--

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG477279-7								
Methylene chloride	116		-		1-221	-		30
1,1-Dichloroethane	106		-		59-155	-		30
Chloroform	122		-		51-138	-		30
Carbon tetrachloride	140		-		70-140	-		30
1,2-Dichloropropane <sup>1</sup>	102		-		1-210	-		30
Dibromochloromethane	134		-		53-149	-		30
1,1,2-Trichloroethane	113		-		52-150	-		30
2-Chloroethylvinyl ether	87		-		1-305	-		30
Tetrachloroethene	125		-		64-148	-		30
Chlorobenzene	110		-		37-160	-		30
Trichlorofluoromethane	136		-		17-181	-		30
1,2-Dichloroethane	126		-		49-155	-		30
1,1,1-Trichloroethane	135		-		52-162	-		30
Bromodichloromethane	131		-		35-155	-		30
trans-1,3-Dichloropropene	131		-		17-183	-		30
cis-1,3-Dichloropropene	123		-		1-227	-		30
Bromoform	130		-		45-169	-		30
1,1,2,2-Tetrachloroethane	103		-		46-157	-		30
Benzene	111		-		37-151	-		30
Toluene	122		-		47-150	-		30
Ethylbenzene	107		-		37-162	-		30

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

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG477279-7								
Chloromethane	57		-		1-273	-		30
Bromomethane	110		-		1-242	-		30
Vinyl chloride	64		-		1-251	-		30
Chloroethane	106		-		14-230	-		30
1,1-Dichloroethene	104		-		1-234	-		30
trans-1,2-Dichloroethene	109		-		54-156	-		30
cis-1,2-Dichloroethene <sup>1</sup>	106		-		60-140	-		30
Trichloroethene	115		-		71-157	-		30
1,2-Dichlorobenzene	111		-		18-190	-		30
1,3-Dichlorobenzene	106		-		59-156	-		30
1,4-Dichlorobenzene	114		-		18-190	-		30
p/m-Xylene <sup>1</sup>	104		-		40-160	-		30
o-Xylene <sup>1</sup>	100		-		40-160	-		30
XYLENE (TOTAL) <sup>1</sup>	103		-		40-160	-		30
Styrene <sup>1</sup>	156		-		40-160	-		30
Acetone <sup>1</sup>	69		-		40-160	-		30
Carbon disulfide <sup>1</sup>	136		-		40-160	-		30
2-Butanone <sup>1</sup>	74		-		40-160	-		30
Vinyl acetate <sup>1</sup>	120		-		40-160	-		30
4-Methyl-2-pentanone <sup>1</sup>	100		-		40-160	-		30
2-Hexanone <sup>1</sup>	99		-		40-160	-		30

# Lab Control Sample Analysis

## Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 Batch: WG477279-7								
Acrolein <sup>1</sup>	98		-		40-160	-		30
Acrylonitrile <sup>1</sup>	79		-		40-160	-		30
Dibromomethane <sup>1</sup>	95		-		70-130	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	107				80-120
Fluorobenzene	99				80-120
4-Bromofluorobenzene	107				80-120

Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477810-1								
Methylene chloride	116		-		1-221	-		30
1,1-Dichloroethane	106		-		59-155	-		30
Chloroform	122		-		51-138	-		30
Carbon tetrachloride	140		-		70-140	-		30
1,2-Dichloropropane <sup>1</sup>	102		-		1-210	-		30
Dibromochloromethane	134		-		53-149	-		30
1,1,2-Trichloroethane	113		-		52-150	-		30
2-Chloroethylvinyl ether	87		-		1-305	-		30
Tetrachloroethene	125		-		64-148	-		30

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

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477810-1								
Chlorobenzene	110		-		37-160	-		30
Trichlorofluoromethane	136		-		17-181	-		30
1,2-Dichloroethane	126		-		49-155	-		30
1,1,1-Trichloroethane	135		-		52-162	-		30
Bromodichloromethane	131		-		35-155	-		30
trans-1,3-Dichloropropene	131		-		17-183	-		30
cis-1,3-Dichloropropene	123		-		1-227	-		30
Bromoform	130		-		45-169	-		30
1,1,2,2-Tetrachloroethane	103		-		46-157	-		30
Benzene	111		-		37-151	-		30
Toluene	122		-		47-150	-		30
Ethylbenzene	107		-		37-162	-		30
Chloromethane	57		-		1-273	-		30
Bromomethane	110		-		1-242	-		30
Vinyl chloride	64		-		1-251	-		30
Chloroethane	106		-		14-230	-		30
1,1-Dichloroethene	104		-		1-234	-		30
trans-1,2-Dichloroethene	109		-		54-156	-		30
cis-1,2-Dichloroethene <sup>1</sup>	106		-		60-140	-		30
Trichloroethene	115		-		71-157	-		30
1,2-Dichlorobenzene	111		-		18-190	-		30



## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG477810-1								
1,3-Dichlorobenzene	106		-		59-156	-		30
1,4-Dichlorobenzene	114		-		18-190	-		30
p/m-Xylene <sup>1</sup>	104		-		40-160	-		30
o-Xylene <sup>1</sup>	100		-		40-160	-		30
XYLENE (TOTAL) <sup>1</sup>	103		-		40-160	-		30
Styrene <sup>1</sup>	156		-		40-160	-		30
Acetone <sup>1</sup>	69		-		40-160	-		30
Carbon disulfide <sup>1</sup>	136		-		40-160	-		30
2-Butanone <sup>1</sup>	74		-		40-160	-		30
Vinyl acetate <sup>1</sup>	120		-		40-160	-		30
4-Methyl-2-pentanone <sup>1</sup>	100		-		40-160	-		30
2-Hexanone <sup>1</sup>	99		-		40-160	-		30
Acrolein <sup>1</sup>	98		-		40-160	-		30
Acrylonitrile <sup>1</sup>	79		-		40-160	-		30
Dibromomethane <sup>1</sup>	95		-		70-130	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	107				80-120
Fluorobenzene	99				80-120
4-Bromofluorobenzene	107				80-120

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

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Pesticides by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG478957-2								
1,2-Dibromoethane	99		-		70-130	-		20
1,2-Dibromo-3-chloropropane	96		-		70-130	-		20

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG477279-3 QC Sample: L1109892-01 Client ID: MS Sample												
Methylene chloride	ND	20	23	117		-	-		1-221	-		30
1,1-Dichloroethane	ND	20	22	113		-	-		59-155	-		30
Chloroform	ND	20	25	126		-	-		51-138	-		30
Carbon tetrachloride	ND	20	28	140		-	-		70-140	-		30
1,2-Dichloropropane <sup>1</sup>	ND	20	22	109		-	-		1-210	-		30
Dibromochloromethane	ND	20	26	129		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	20	22	111		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	20	16	80		-	-		1-305	-		30
Tetrachloroethene	ND	20	23	114		-	-		64-148	-		30
Chlorobenzene	ND	20	22	108		-	-		37-160	-		30
Trichlorofluoromethane	ND	20	26	130		-	-		17-181	-		30
1,2-Dichloroethane	ND	20	26	132		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	20	28	140		-	-		52-162	-		30
Bromodichloromethane	ND	20	25	126		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	20	24	119		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	20	21	107		-	-		1-227	-		30
Bromoform	ND	20	27	135		-	-		45-169	-		30
1,1,2,2-Tetrachloroethane	ND	20	23	113		-	-		46-157	-		30
Benzene	ND	20	23	116		-	-		35-151	-		30
Toluene	ND	20	23	113		-	-		47-150	-		30
Ethylbenzene	ND	20	21	106		-	-		37-162	-		30

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG477279-3 QC Sample: L1109892-01 Client ID: MS Sample												
Chloromethane	ND	20	12	60		-	-		1-273	-		30
Bromomethane	ND	20	13	67		-	-		1-242	-		30
Vinyl chloride	ND	20	14	71		-	-		1-251	-		30
Chloroethane	ND	20	13	66		-	-		14-230	-		30
1,1-Dichloroethene	ND	20	22	112		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	20	23	113		-	-		54-156	-		30
cis-1,2-Dichloroethene <sup>1</sup>	ND	20	22	108		-	-		60-140	-		30
Trichloroethene	ND	20	23	116		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	20	21	107		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	20	20	99		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	20	22	108		-	-		18-190	-		30
p/m-Xylene <sup>1</sup>	ND	40	42	104		-	-		40-160	-		30
o-Xylene <sup>1</sup>	ND	20	20	100		-	-		40-160	-		30
XYLENE (TOTAL) <sup>1</sup>	ND	60	62	103		-	-		40-160	-		30
Styrene <sup>1</sup>	ND	20	32	158		-	-		40-160	-		30
Acetone <sup>1</sup>	ND	50	49	99		-	-		40-160	-		30
Carbon disulfide <sup>1</sup>	ND	20	27	134		-	-		40-160	-		30
2-Butanone <sup>1</sup>	ND	50	42	84		-	-		40-160	-		30
Vinyl acetate <sup>1</sup>	ND	40	40	101		-	-		40-160	-		30
4-Methyl-2-pentanone <sup>1</sup>	ND	50	45	90		-	-		40-160	-		30
2-Hexanone <sup>1</sup>	ND	50	45	91		-	-		40-160	-		30

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
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Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG477279-3 QC Sample: L1109892-01 Client ID: MS Sample

Acrolein <sup>1</sup>	ND	40	45	112		-	-		40-160	-		30
Acrylonitrile <sup>1</sup>	ND	40	40	100		-	-		40-160	-		30
Dibromomethane <sup>1</sup>	ND	20	19	93		-	-			-		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
4-Bromofluorobenzene	103				80-120
Fluorobenzene	100				80-120
Pentafluorobenzene	106				80-120

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477810-3 QC Sample: L1110053-01 Client ID: G-1 (OW)												
Methylene chloride	ND	20	22	108		-	-		1-221	-		30
1,1-Dichloroethane	ND	20	21	103		-	-		59-155	-		30
Chloroform	ND	20	22	113		-	-		51-138	-		30
Carbon tetrachloride	ND	20	27	136		-	-		70-140	-		30
1,2-Dichloropropane <sup>1</sup>	ND	20	19	94		-	-		1-210	-		30
Dibromochloromethane	ND	20	25	126		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	20	21	104		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	20	15	74		-	-		1-305	-		30
Tetrachloroethene	ND	20	23	114		-	-		64-148	-		30
Chlorobenzene	ND	20	20	98		-	-		37-160	-		30
Trichlorofluoromethane	ND	20	20	100		-	-		17-181	-		30
1,2-Dichloroethane	ND	20	24	119		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	20	25	127		-	-		52-162	-		30
Bromodichloromethane	ND	20	25	123		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	20	23	114		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	20	21	105		-	-		1-227	-		30
Bromoform	ND	20	24	121		-	-		45-169	-		30
1,1,2,2-Tetrachloroethane	ND	20	20	100		-	-		46-157	-		30
Benzene	ND	20	20	103		-	-		35-151	-		30
Toluene	ND	20	22	111		-	-		47-150	-		30
Ethylbenzene	ND	20	19	97		-	-		37-162	-		30



# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477810-3 QC Sample: L1110053-01 Client ID: G-1 (OW)												
Chloromethane	ND	20	ND	0	Q	-	-		1-273	-		30
Bromomethane	ND	20	11	56		-	-		1-242	-		30
Vinyl chloride	ND	20	12	58		-	-		1-251	-		30
Chloroethane	ND	20	11	57		-	-		14-230	-		30
1,1-Dichloroethene	ND	20	19	97		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	20	20	103		-	-		54-156	-		30
cis-1,2-Dichloroethene <sup>1</sup>	1.6	20	22	102		-	-		60-140	-		30
Trichloroethene	ND	20	20	102		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	20	19	98		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	20	18	92		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	20	20	99		-	-		18-190	-		30
p/m-Xylene <sup>1</sup>	ND	40	38	94		-	-		40-160	-		30
o-Xylene <sup>1</sup>	ND	20	18	91		-	-		40-160	-		30
XYLENE (TOTAL) <sup>1</sup>	ND	60	56	93		-	-		40-160	-		30
Styrene <sup>1</sup>	ND	20	28	142		-	-		40-160	-		30
Acetone <sup>1</sup>	ND	50	42	85		-	-		40-160	-		30
Carbon disulfide <sup>1</sup>	ND	20	23	116		-	-		40-160	-		30
2-Butanone <sup>1</sup>	ND	50	45	90		-	-		40-160	-		30
Vinyl acetate <sup>1</sup>	ND	40	36	90		-	-		40-160	-		30
4-Methyl-2-pentanone <sup>1</sup>	ND	50	49	98		-	-		40-160	-		30
2-Hexanone <sup>1</sup>	ND	50	49	99		-	-		40-160	-		30

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477810-3 QC Sample: L1110053-01 Client ID: G-1 (OW)												
Acrolein <sup>1</sup>	ND	40	33	84		-	-		40-160	-		30
Acrylonitrile <sup>1</sup>	ND	40	32	80		-	-		40-160	-		30
Dibromomethane <sup>1</sup>	ND	20	17	84		-	-			-		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
4-Bromofluorobenzene	104				80-120
Fluorobenzene	98				80-120
Pentafluorobenzene	106				80-120

Pesticides by GC - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478957-3 QC Sample: L1109892-01 Client ID: MS Sample

1,2-Dibromoethane	ND	0.239	0.225	94		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.239	0.201	84		-	-		70-130	-		20

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG477279-4 QC Sample: L1109892-01 Client ID: DUP Sample						
Methylene chloride	ND	ND	ug/l	NC		30
1,1-Dichloroethane	ND	ND	ug/l	NC		30
Chloroform	ND	ND	ug/l	NC		30
Carbon tetrachloride	ND	ND	ug/l	NC		30
1,2-Dichloropropane <sup>1</sup>	ND	ND	ug/l	NC		30
Dibromochloromethane	ND	ND	ug/l	NC		30
1,1,2-Trichloroethane	ND	ND	ug/l	NC		30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC		30
Tetrachloroethene	ND	ND	ug/l	NC		30
Chlorobenzene	ND	ND	ug/l	NC		30
Trichlorofluoromethane	ND	ND	ug/l	NC		30
1,2-Dichloroethane	ND	ND	ug/l	NC		30
1,1,1-Trichloroethane	ND	ND	ug/l	NC		30
Bromodichloromethane	ND	ND	ug/l	NC		30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC		30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC		30
Bromoform	ND	ND	ug/l	NC		30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC		30
Benzene	ND	ND	ug/l	NC		30

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG477279-4 QC Sample: L1109892-01 Client ID: DUP Sample					
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene <sup>1</sup>	ND	ND	ug/l	NC	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene <sup>1</sup>	ND	ND	ug/l	NC	30
o-Xylene <sup>1</sup>	ND	ND	ug/l	NC	30
XYLENE (TOTAL) <sup>1</sup>	ND	ND	ug/l	NC	30
Styrene <sup>1</sup>	ND	ND	ug/l	NC	30
Acetone <sup>1</sup>	ND	ND	ug/l	NC	30
Carbon disulfide <sup>1</sup>	ND	ND	ug/l	NC	30

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG477279-4 QC Sample: L1109892-01 Client ID: DUP Sample					
2-Butanone <sup>1</sup>	ND	ND	ug/l	NC	30
Vinyl acetate <sup>1</sup>	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone <sup>1</sup>	ND	ND	ug/l	NC	30
2-Hexanone <sup>1</sup>	ND	ND	ug/l	NC	30
Acrolein <sup>1</sup>	ND	ND	ug/l	NC	30
Acrylonitrile <sup>1</sup>	ND	ND	ug/l	NC	30
Methyl tert butyl ether <sup>1</sup>	ND	ND	ug/l	NC	30
Dibromomethane <sup>1</sup>	ND	ND	ug/l	NC	30
1,4-Dioxane <sup>1</sup>	ND	ND	ug/l	NC	30
tert-Butyl Alcohol <sup>1</sup>	ND	ND	ug/l	NC	30
Tertiary-Amyl Methyl Ether <sup>1</sup>	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	94		95		80-120
Fluorobenzene	93		94		80-120
4-Bromofluorobenzene	116		115		80-120

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477810-4 QC Sample: L1110053-01 Client ID: G-1 (OW)					
Methylene chloride	ND	ND	ug/l	NC	30
1,1-Dichloroethane	ND	ND	ug/l	NC	30
Chloroform	ND	ND	ug/l	NC	30
Carbon tetrachloride	ND	ND	ug/l	NC	30
1,2-Dichloropropane <sup>1</sup>	ND	ND	ug/l	NC	30
Dibromochloromethane	ND	ND	ug/l	NC	30
1,1,2-Trichloroethane	ND	ND	ug/l	NC	30
2-Chloroethylvinyl ether	ND	ND	ug/l	NC	30
Tetrachloroethene	ND	ND	ug/l	NC	30
Chlorobenzene	ND	ND	ug/l	NC	30
Trichlorofluoromethane	ND	ND	ug/l	NC	30
1,2-Dichloroethane	ND	ND	ug/l	NC	30
1,1,1-Trichloroethane	ND	ND	ug/l	NC	30
Bromodichloromethane	ND	ND	ug/l	NC	30
trans-1,3-Dichloropropene	ND	ND	ug/l	NC	30
cis-1,3-Dichloropropene	ND	ND	ug/l	NC	30
Bromoform	ND	ND	ug/l	NC	30
1,1,2,2-Tetrachloroethane	ND	ND	ug/l	NC	30
Benzene	ND	ND	ug/l	NC	30

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477810-4 QC Sample: L1110053-01 Client ID: G-1 (OW)					
Toluene	ND	ND	ug/l	NC	30
Ethylbenzene	ND	ND	ug/l	NC	30
Chloromethane	ND	ND	ug/l	NC	30
Bromomethane	ND	ND	ug/l	NC	30
Vinyl chloride	ND	ND	ug/l	NC	30
Chloroethane	ND	ND	ug/l	NC	30
1,1-Dichloroethene	ND	ND	ug/l	NC	30
trans-1,2-Dichloroethene	ND	ND	ug/l	NC	30
cis-1,2-Dichloroethene <sup>1</sup>	1.6	1.4	ug/l	13	30
Trichloroethene	ND	ND	ug/l	NC	30
1,2-Dichlorobenzene	ND	ND	ug/l	NC	30
1,3-Dichlorobenzene	ND	ND	ug/l	NC	30
1,4-Dichlorobenzene	ND	ND	ug/l	NC	30
p/m-Xylene <sup>1</sup>	ND	ND	ug/l	NC	30
o-xylene <sup>1</sup>	ND	ND	ug/l	NC	30
Xylene (Total) <sup>1</sup>	ND	ND	ug/l	NC	30
Styrene <sup>1</sup>	ND	ND	ug/l	NC	30
Acetone <sup>1</sup>	ND	ND	ug/l	NC	30
Carbon disulfide <sup>1</sup>	ND	ND	ug/l	NC	30



# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 QC Batch ID: WG477810-4 QC Sample: L1110053-01 Client ID: G-1 (OW)					
2-Butanone <sup>1</sup>	ND	ND	ug/l	NC	30
Vinyl acetate <sup>1</sup>	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone <sup>1</sup>	ND	ND	ug/l	NC	30
2-Hexanone <sup>1</sup>	ND	ND	ug/l	NC	30
Acrolein <sup>1</sup>	ND	ND	ug/l	NC	30
Acrylonitrile <sup>1</sup>	ND	ND	ug/l	NC	30
Dibromomethane <sup>1</sup>	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	101		96		80-120
Fluorobenzene	94		91		80-120
4-Bromofluorobenzene	115		117		80-120

# SEMIVOLATILES

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-01  
**Client ID:** G-1 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 07/10/11 19:38  
**Analyst:** JB

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/08/11 10:38

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
NitrosoDiPhenylAmine(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:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

Lab ID: L1110053-01  
 Client ID: G-1 (OW)  
 Sample Location: CAMBRIDGE, MA

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

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	58		21-120
Phenol-d6	43		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	93		15-120
2,4,6-Tribromophenol	101		10-120
4-Terphenyl-d14	109		41-149

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-01  
**Client ID:** G-1 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270C-SIM  
**Analytical Date:** 07/11/11 14:45  
**Analyst:** AS

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/08/11 10:41

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	58		21-120
Phenol-d6	41		10-120
Nitrobenzene-d5	90		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	93		10-120
4-Terphenyl-d14	98		41-149

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-02  
**Client ID:** G-4 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 07/10/11 20:03  
**Analyst:** JB

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/08/11 10:38

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
NitrosoDiPhenylAmine(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:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

Lab ID: L1110053-02  
 Client ID: G-4 (OW)  
 Sample Location: CAMBRIDGE, MA

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

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	53		21-120
Phenol-d6	38		10-120
Nitrobenzene-d5	89		23-120
2-Fluorobiphenyl	86		15-120
2,4,6-Tribromophenol	98		10-120
4-Terphenyl-d14	111		41-149



**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-02  
**Client ID:** G-4 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270C-SIM  
**Analytical Date:** 07/11/11 15:13  
**Analyst:** AS

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/08/11 10:41

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	53		21-120
Phenol-d6	36		10-120
Nitrobenzene-d5	87		23-120
2-Fluorobiphenyl	74		15-120
2,4,6-Tribromophenol	88		10-120
4-Terphenyl-d14	91		41-149

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-03  
**Client ID:** G-6 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270C  
**Analytical Date:** 07/10/11 20:27  
**Analyst:** JB

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/08/11 10:38

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
NitrosoDiPhenylAmine(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:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

Lab ID: L1110053-03  
 Client ID: G-6 (OW)  
 Sample Location: CAMBRIDGE, MA

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

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	33		10-120
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	73		15-120
2,4,6-Tribromophenol	85		10-120
4-Terphenyl-d14	103		41-149

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-03  
**Client ID:** G-6 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 1,8270C-SIM  
**Analytical Date:** 07/11/11 15:41  
**Analyst:** AS

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 3510C  
**Extraction Date:** 07/08/11 10:41

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	49		21-120
Phenol-d6	34		10-120
Nitrobenzene-d5	78		23-120
2-Fluorobiphenyl	62		15-120
2,4,6-Tribromophenol	77		10-120
4-Terphenyl-d14	94		41-149

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270C  
 Analytical Date: 07/10/11 18:01  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 07/08/11 10:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG477877-1					
Acenaphthene	ND		ug/l	2.0	--
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Hexachlorobenzene	ND		ug/l	2.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
2-Chloronaphthalene	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	--
Fluoranthene	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	--
Hexachlorobutadiene	ND		ug/l	2.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Hexachloroethane	ND		ug/l	2.0	--
Isophorone	ND		ug/l	5.0	--
Naphthalene	ND		ug/l	2.0	--
Nitrobenzene	ND		ug/l	2.0	--
NitrosoDiPhenylAmine(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	--

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270C  
 Analytical Date: 07/10/11 18:01  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 07/08/11 10:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG477877-1					
Benzo(a)anthracene	ND		ug/l	2.0	--
Benzo(a)pyrene	ND		ug/l	2.0	--
Benzo(b)fluoranthene	ND		ug/l	2.0	--
Benzo(k)fluoranthene	ND		ug/l	2.0	--
Chrysene	ND		ug/l	2.0	--
Acenaphthylene	ND		ug/l	2.0	--
Anthracene	ND		ug/l	2.0	--
Benzo(ghi)perylene	ND		ug/l	2.0	--
Fluorene	ND		ug/l	2.0	--
Phenanthrene	ND		ug/l	2.0	--
Dibenzo(a,h)anthracene	ND		ug/l	2.0	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	2.0	--
Pyrene	ND		ug/l	2.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
1-Methylnaphthalene	ND		ug/l	2.0	--
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	--
2-Methylnaphthalene	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--
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	--

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270C  
 Analytical Date: 07/10/11 18:01  
 Analyst: JB

Extraction Method: EPA 3510C  
 Extraction Date: 07/08/11 10:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01-03 Batch: WG477877-1					
Pentachlorophenol	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	56		21-120
Phenol-d6	40		10-120
Nitrobenzene-d5	84		23-120
2-Fluorobiphenyl	82		15-120
2,4,6-Tribromophenol	96		10-120
4-Terphenyl-d14	110		41-149



Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270C-SIM  
 Analytical Date: 07/11/11 12:54  
 Analyst: AS

Extraction Method: EPA 3510C  
 Extraction Date: 07/08/11 10:41

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG477878-1					
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: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270C-SIM  
 Analytical Date: 07/11/11 12:54  
 Analyst: AS

Extraction Method: EPA 3510C  
 Extraction Date: 07/08/11 10:41

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01-03 Batch: WG477878-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	48		21-120
Phenol-d6	33		10-120
Nitrobenzene-d5	75		23-120
2-Fluorobiphenyl	61		15-120
2,4,6-Tribromophenol	110		10-120
4-Terphenyl-d14	94		41-149

# Lab Control Sample Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG477877-2 WG477877-3								
Acenaphthene	99		98		37-111	1		30
1,2,4-Trichlorobenzene	90		89		39-98	1		30
2-Chloronaphthalene	126		125		40-140	1		30
1,2-Dichlorobenzene	82		84		40-140	2		30
1,4-Dichlorobenzene	80		82		36-97	2		30
2,4-Dinitrotoluene	102	Q	100	Q	24-96	2		30
2,6-Dinitrotoluene	96		93		40-140	3		30
Fluoranthene	113		110		40-140	3		30
4-Chlorophenyl phenyl ether	108		105		40-140	3		30
n-Nitrosodi-n-propylamine	108		103		41-116	5		30
Butyl benzyl phthalate	111		108		40-140	3		30
Anthracene	110		108		40-140	2		30
Pyrene	112		109		26-127	3		30
P-Chloro-M-Cresol	112	Q	108	Q	23-97	4		30
2-Chlorophenol	98		94		27-123	4		30
2-Nitrophenol	107		101		30-130	6		30
4-Nitrophenol	66		60		10-80	10		30
2,4-Dinitrophenol	75		75		20-130	0		30
Pentachlorophenol	111	Q	104	Q	9-103	7		30
Phenol	54		51		12-110	6		30

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-03 Batch: WG477877-2 WG477877-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	68		65		21-120
Phenol-d6	51		49		10-120
Nitrobenzene-d5	103		101		23-120
2-Fluorobiphenyl	103		100		15-120
2,4,6-Tribromophenol	110		109		10-120
4-Terphenyl-d14	120		119		41-149

Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG477878-2 WG477878-3

Acenaphthene	89		92		37-111	3	40
2-Chloronaphthalene	110		114		40-140	4	40
Fluoranthene	107		98		40-140	9	40
Anthracene	105		90		40-140	15	40
Pyrene	103		94		26-127	9	40
Pentachlorophenol	86		80		9-103	7	40

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01-03 Batch: WG477878-2 WG477878-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	69		61		21-120
Phenol-d6	48		43		10-120
Nitrobenzene-d5	106		101		23-120
2-Fluorobiphenyl	82		78		15-120
2,4,6-Tribromophenol	85		77		10-120
4-Terphenyl-d14	103		93		41-149

# PCBS

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-01  
**Client ID:** G-1 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 07/10/11 14:53  
**Analyst:** SH

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 07/08/11 09:07  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 07/10/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 07/10/11

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	70		30-150	A
Decachlorobiphenyl	40		30-150	A

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-02  
**Client ID:** G-4 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 07/10/11 15:06  
**Analyst:** SH

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 07/08/11 09:07  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 07/10/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 07/10/11

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	59		30-150	A
Decachlorobiphenyl	51		30-150	A



**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**SAMPLE RESULTS**

**Lab ID:** L1110053-03  
**Client ID:** G-6 (OW)  
**Sample Location:** CAMBRIDGE, MA  
**Matrix:** Water  
**Analytical Method:** 5,608  
**Analytical Date:** 07/10/11 15:18  
**Analyst:** SH

**Date Collected:** 07/07/11 13:00  
**Date Received:** 07/07/11  
**Field Prep:** Not Specified  
**Extraction Method:** EPA 608  
**Extraction Date:** 07/08/11 09:07  
**Cleanup Method1:** EPA 3665A  
**Cleanup Date1:** 07/10/11  
**Cleanup Method2:** EPA 3660B  
**Cleanup Date2:** 07/10/11

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	31		30-150	A

**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11

### Method Blank Analysis Batch Quality Control

Analytical Method: 5,608  
 Analytical Date: 07/10/11 13:37  
 Analyst: SH

Extraction Method: EPA 608  
 Extraction Date: 07/08/11 09:07  
 Cleanup Method1: EPA 3665A  
 Cleanup Date1: 07/10/11  
 Cleanup Method2: EPA 3660B  
 Cleanup Date2: 07/10/11

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01-03 Batch: WG477850-1					
Aroclor 1016	ND		ug/l	0.250	--
Aroclor 1221	ND		ug/l	0.250	--
Aroclor 1232	ND		ug/l	0.250	--
Aroclor 1242	ND		ug/l	0.250	--
Aroclor 1248	ND		ug/l	0.250	--
Aroclor 1254	ND		ug/l	0.250	--
Aroclor 1260	ND		ug/l	0.250	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52		30-150	A
Decachlorobiphenyl	53		30-150	A

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG477850-3 QC Sample: L1109892-01 Client ID: MS Sample												
Aroclor 1016	ND	2	1.39	70		-	-		40-126	-		30
Aroclor 1260	ND	2	1.00	50		-	-		40-127	-		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	71				30-150	A
Decachlorobiphenyl	54				30-150	A

**Lab Control Sample Analysis****Batch Quality Control****Project Name:** 610 MAIN ST**Project Number:** 4781.9.00**Lab Number:** L1110053**Report Date:** 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 Batch: WG477850-2								
Aroclor 1016	58		-		40-126	-		30
Aroclor 1260	58		-		40-127	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	52				30-150	A
Decachlorobiphenyl	71				30-150	A

# Lab Duplicate Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG477850-4 QC Sample: L1109892-01 Client ID: DUP Sample						
Aroclor 1016	ND	ND	ug/l	NC		30
Aroclor 1221	ND	ND	ug/l	NC		30
Aroclor 1232	ND	ND	ug/l	NC		30
Aroclor 1242	ND	ND	ug/l	NC		30
Aroclor 1248	ND	ND	ug/l	NC		30
Aroclor 1254	ND	ND	ug/l	NC		30
Aroclor 1260	ND	ND	ug/l	NC		30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	68		77		30-150	A
Decachlorobiphenyl	51		67		30-150	A

## METALS

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

## SAMPLE RESULTS

Lab ID: L1110053-01

Date Collected: 07/07/11 13:00

Client ID: G-1 (OW)

Date Received: 07/07/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

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	0.0010	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Arsenic, Total	0.0198		mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Cadmium, Total	ND		mg/l	0.0002	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Chromium, Total	0.0005		mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Copper, Total	0.0014		mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Iron, Total	20		mg/l	0.05	--	1	07/12/11 10:01	07/14/11 17:14	EPA 3005A	19,200.7	MS
Lead, Total	ND		mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Mercury, Total	ND		mg/l	0.0002	--	1	07/12/11 20:23	07/13/11 12:46	EPA 245.1	3,245.1	DM
Nickel, Total	0.0043		mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Selenium, Total	0.003		mg/l	0.001	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Silver, Total	ND		mg/l	0.0004	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM
Zinc, Total	0.0731		mg/l	0.0050	--	1	07/12/11 10:01	07/14/11 19:21	EPA 3005A	1,6020	BM



Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

## SAMPLE RESULTS

Lab ID: L1110053-02

Date Collected: 07/07/11 13:00

Client ID: G-4 (OW)

Date Received: 07/07/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

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	0.0010	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Arsenic, Total	0.0010		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Cadmium, Total	0.0015		mg/l	0.0002	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Chromium, Total	0.0007		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Copper, Total	0.0013		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Iron, Total	6.7		mg/l	0.05	--	1	07/13/11 13:00	07/14/11 12:07	EPA 3005A	19,200.7	AI
Lead, Total	0.0040		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Mercury, Total	ND		mg/l	0.0002	--	1	07/12/11 20:23	07/13/11 12:48	EPA 245.1	3,245.1	DM
Nickel, Total	0.0076		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Selenium, Total	0.002		mg/l	0.001	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Silver, Total	ND		mg/l	0.0004	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM
Zinc, Total	0.1948		mg/l	0.0050	--	1	07/13/11 13:00	07/14/11 18:45	EPA 3005A	1,6020	BM





Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

## SAMPLE RESULTS

Lab ID: L1110053-03

Date Collected: 07/07/11 13:00

Client ID: G-6 (OW)

Date Received: 07/07/11

Sample Location: CAMBRIDGE, MA

Field Prep: Not Specified

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	0.0005	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Arsenic, Total	ND		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Cadmium, Total	0.0026		mg/l	0.0002	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Chromium, Total	ND		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Copper, Total	0.0006		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Iron, Total	25		mg/l	0.05	--	1	07/13/11 13:00	07/14/11 11:55	EPA 3005A	19,200.7	AI
Lead, Total	0.0102		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Mercury, Total	ND		mg/l	0.0002	--	1	07/12/11 20:23	07/13/11 12:49	EPA 245.1	3,245.1	DM
Nickel, Total	0.0012		mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Selenium, Total	ND		mg/l	0.001	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Silver, Total	ND		mg/l	0.0004	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM
Zinc, Total	0.0116		mg/l	0.0050	--	1	07/13/11 13:00	07/14/11 18:57	EPA 3005A	1,6020	BM



Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

## 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: WG478503-1									
Iron, Total	ND	mg/l	0.05	--	1	07/12/11 10:01	07/14/11 17:04	19,200.7	MS

### 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: WG478505-1									
Antimony, Total	ND	mg/l	0.0010	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Arsenic, Total	ND	mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Cadmium, Total	ND	mg/l	0.0002	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Chromium, Total	ND	mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Copper, Total	ND	mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Lead, Total	ND	mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Nickel, Total	ND	mg/l	0.0005	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Selenium, Total	ND	mg/l	0.001	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Silver, Total	ND	mg/l	0.0004	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM
Zinc, Total	ND	mg/l	0.0050	--	1	07/12/11 10:01	07/14/11 17:57	1,6020	BM

### 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): 01-03 Batch: WG478593-1									
Mercury, Total	ND	mg/l	0.0002	--	1	07/12/11 20:23	07/13/11 12:21	3,245.1	DM

### Prep Information

Digestion Method: EPA 245.1

Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

## 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): 02-03 Batch: WG478792-1									
Iron, Total	ND	mg/l	0.05	--	1	07/13/11 13:00	07/14/11 11:36	19,200.7	AI

### 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): 02-03 Batch: WG478795-1									
Antimony, Total	ND	mg/l	0.0010	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Arsenic, Total	ND	mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Cadmium, Total	ND	mg/l	0.0002	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Chromium, Total	ND	mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Copper, Total	ND	mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Lead, Total	ND	mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Nickel, Total	ND	mg/l	0.0005	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Selenium, Total	ND	mg/l	0.001	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Silver, Total	ND	mg/l	0.0004	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM
Zinc, Total	ND	mg/l	0.0050	--	1	07/13/11 13:00	07/14/11 16:21	1,6020	BM

### Prep Information

Digestion Method: EPA 3005A

## Lab Control Sample Analysis

### Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG478503-2								
Iron, Total	98		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG478505-2								
Antimony, Total	94		-		80-120	-		
Arsenic, Total	100		-		80-120	-		
Cadmium, Total	106		-		80-120	-		
Chromium, Total	92		-		80-120	-		
Copper, Total	99		-		80-120	-		
Lead, Total	101		-		80-120	-		
Nickel, Total	98		-		80-120	-		
Selenium, Total	104		-		80-120	-		
Silver, Total	94		-		80-120	-		
Zinc, Total	103		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01-03 Batch: WG478593-2								
Mercury, Total	102		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 02-03 Batch: WG478792-2								
Iron, Total	93		-		85-115	-		

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.00

**Lab Number:** L1110053

**Report Date:** 09/20/11

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 02-03 Batch: WG478795-2					
Antimony, Total	92	-	80-120	-	
Arsenic, Total	98	-	80-120	-	
Cadmium, Total	102	-	80-120	-	
Chromium, Total	90	-	80-120	-	
Copper, Total	96	-	80-120	-	
Lead, Total	100	-	80-120	-	
Nickel, Total	96	-	80-120	-	
Selenium, Total	100	-	80-120	-	
Silver, Total	92	-	80-120	-	
Zinc, Total	96	-	80-120	-	

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

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

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: WG478503-4 QC Sample: L1110053-01 Client ID: G-1 (OW)												
Iron, Total	20	1	22	200		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG478505-4 QC Sample: L1110053-01 Client ID: G-1 (OW)												
Antimony, Total	ND	0.5	0.5280	106		-	-		80-120	-		20
Arsenic, Total	0.0198	0.12	0.1474	106		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.0534	105		-	-		80-120	-		20
Chromium, Total	0.0005	0.2	0.1866	93		-	-		80-120	-		20
Copper, Total	0.0014	0.25	0.2414	96		-	-		80-120	-		20
Lead, Total	ND	0.51	0.5412	106		-	-		80-120	-		20
Nickel, Total	0.0043	0.5	0.4856	96		-	-		80-120	-		20
Selenium, Total	0.003	0.12	0.122	99		-	-		80-120	-		20
Silver, Total	ND	0.05	0.0468	94		-	-		80-120	-		20
Zinc, Total	0.0731	0.5	0.5536	96		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478593-4 QC Sample: L1109511-01 Client ID: MS Sample												
Mercury, Total	ND	0.001	0.0012	116		-	-		70-130	-		20
Total Metals - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG478792-4 QC Sample: L1110053-03 Client ID: G-6 (OW)												
Iron, Total	25	1	26	100		-	-		75-125	-		20

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 02-03    QC Batch ID: WG478795-4    QC Sample: L1109782-57    Client ID: MS Sample									
Antimony, Total	ND	0.5	0.4588	92	-	-	80-120	-	20
Arsenic, Total	0.0010	0.12	0.1173	97	-	-	80-120	-	20
Cadmium, Total	ND	0.051	0.0495	97	-	-	80-120	-	20
Chromium, Total	ND	0.2	0.1688	84	-	-	80-120	-	20
Copper, Total	0.0008	0.25	0.2275	91	-	-	80-120	-	20
Lead, Total	ND	0.51	0.4888	96	-	-	80-120	-	20
Nickel, Total	0.0097	0.5	0.4524	88	-	-	80-120	-	20
Selenium, Total	ND	0.12	0.115	96	-	-	80-120	-	20
Silver, Total	ND	0.05	0.0430	86	-	-	80-120	-	20
Zinc, Total	0.0101	0.5	0.4760	93	-	-	80-120	-	20

# **Lab Duplicate Analysis** Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG478503-3 QC Sample: L1110053-01 Client ID: G-1 (OW)						
Iron, Total	20	21	mg/l	5		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG478505-3 QC Sample: L1110053-01 Client ID: G-1 (OW)						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.0198	0.0206	mg/l	4		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	0.0005	0.0005	mg/l	2		20
Copper, Total	0.0014	0.0015	mg/l	6		20
Lead, Total	ND	0.0006	mg/l	NC		20
Nickel, Total	0.0043	0.0043	mg/l	0		20
Selenium, Total	0.003	0.003	mg/l	0		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	0.0731	0.0755	mg/l	3		20
Total Metals - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478593-3 QC Sample: L1109511-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG478792-3 QC Sample: L1110053-03 Client ID: G-6 (OW)						
Iron, Total	25	25	mg/l	0		20
Total Metals - Westborough Lab Associated sample(s): 02-03 QC Batch ID: WG478795-3 QC Sample: L1109782-57 Client ID: DUP Sample						
Arsenic, Total	0.0010	0.0010	mg/l	1		20



# **INORGANICS & MISCELLANEOUS**

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

## SAMPLE RESULTS

Lab ID: L1110053-01  
 Client ID: G-1 (OW)  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	40		mg/l	5.0	NA	1	-	07/12/11 20:30	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	07/12/11 10:30	07/13/11 17:36	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/07/11 23:45	30,4500CL-D	KK
pH (H)	6.8		SU	-	NA	1	-	07/08/11 01:00	30,4500H+-B	KK
TPH	ND		mg/l	4.00	--	1	07/12/11 15:00	07/13/11 17:00	74,1664A	JO
Phenolics, Total	ND		mg/l	0.03	--	1	07/12/11 19:15	07/12/11 19:15	4,420.1	TP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/08/11 00:30	07/08/11 01:32	30,3500CR-D	JT
Anions by Ion Chromatography - Westborough Lab										
Chloride	690		mg/l	25	--	50	-	07/09/11 00:38	44,300.0	AU



Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

## SAMPLE RESULTS

Lab ID: L1110053-02  
 Client ID: G-4 (OW)  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/12/11 20:30	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	07/12/11 10:30	07/13/11 17:38	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/07/11 23:45	30,4500CL-D	KK
pH (H)	6.5		SU	-	NA	1	-	07/08/11 01:00	30,4500H+-B	KK
TPH	ND		mg/l	4.00	--	1	07/12/11 15:00	07/13/11 17:00	74,1664A	JO
Phenolics, Total	ND		mg/l	0.03	--	1	07/12/11 19:15	07/12/11 19:15	4,420.1	TP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/08/11 00:30	07/08/11 01:32	30,3500CR-D	JT
Anions by Ion Chromatography - Westborough Lab										
Chloride	960		mg/l	25	--	50	-	07/09/11 00:50	44,300.0	AU



Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

## SAMPLE RESULTS

Lab ID: L1110053-03  
 Client ID: G-6 (OW)  
 Sample Location: CAMBRIDGE, MA  
 Matrix: Water

Date Collected: 07/07/11 13:00  
 Date Received: 07/07/11  
 Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	40		mg/l	5.0	NA	1	-	07/12/11 20:30	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	07/12/11 10:30	07/13/11 17:39	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/07/11 23:45	30,4500CL-D	KK
pH (H)	6.8		SU	-	NA	1	-	07/08/11 01:00	30,4500H+-B	KK
TPH	ND		mg/l	4.00	--	1	07/12/11 15:00	07/13/11 17:00	74,1664A	JO
Phenolics, Total	0.05		mg/l	0.03	--	1	07/12/11 19:15	07/12/11 19:15	4,420.1	TP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/08/11 00:30	07/08/11 01:33	30,3500CR-D	JT
Anions by Ion Chromatography - Westborough Lab										
Chloride	550		mg/l	25	--	50	-	07/09/11 01:02	44,300.0	AU



Project Name: 610 MAIN ST

Lab Number: L1110053

Project Number: 4781.9.00

Report Date: 09/20/11

### 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): 01-03 Batch: WG477774-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	07/07/11 23:45	30,4500CL-D	KK
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG477785-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	07/08/11 00:30	07/08/11 01:28	30,3500CR-D	JT
Anions by Ion Chromatography - Westborough Lab for sample(s): 01-03 Batch: WG478015-1										
Chloride	ND		mg/l	0.50	--	1	-	07/08/11 21:27	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG478418-2										
Cyanide, Total	ND		mg/l	0.005	--	1	07/12/11 10:30	07/13/11 17:20	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG478528-2										
TPH	ND		mg/l	4.00	--	1	07/12/11 15:00	07/13/11 17:00	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG478551-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	07/12/11 20:30	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG478601-1										
Phenolics, Total	ND		mg/l	0.03	--	1	07/12/11 19:15	07/12/11 19:15	4,420.1	TP

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

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG477774-2								
Chlorine, Total Residual	97		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG477779-1								
pH	100		-		99-101	-		5
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG477785-2								
Chromium, Hexavalent	97		-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-03 Batch: WG478015-2								
Chloride	110		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG478418-1								
Cyanide, Total	105		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG478528-1								
TPH	90		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG478601-2								
Phenolics, Total	100		-		82-111	-		12

# Matrix Spike Analysis

## Batch Quality Control

Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

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): 01-03 QC Batch ID: WG477785-4 QC Sample: L1110053-02 Client ID: G-4 (OW)												
Chromium, Hexavalent	ND	0.1	0.096	96		-	-		85-115	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478015-3 QC Sample: L1110017-01 Client ID: MS Sample												
Chloride	ND	4	4.4	110		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478418-3 QC Sample: L1110023-02 Client ID: MS Sample												
Cyanide, Total	0.161	0.2	0.369	104		-	-		90-110	-		30

# **Lab Duplicate Analysis** Batch Quality Control

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.00

**Lab Number:** L1110053  
**Report Date:** 09/20/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG477774-3 QC Sample: L1110053-02 Client ID: G-4 (OW)						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG477779-2 QC Sample: L1110009-03 Client ID: DUP Sample						
pH	7.6	7.6	SU	0		5
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG477785-3 QC Sample: L1110053-03 Client ID: G-6 (OW)						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478015-4 QC Sample: L1110017-01 Client ID: DUP Sample						
Chloride	ND	ND	mg/l	NC		18
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478418-4 QC Sample: L1110024-02 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG478551-2 QC Sample: L1110077-03 Client ID: DUP Sample						
Solids, Total Suspended	86	83	mg/l	4		32



Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

## 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

B Absent

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1110053-01A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1110053-01B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1110053-01C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1110053-01D	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1110053-01E	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1110053-01F	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1110053-01G	Amber 1000ml Na2S2O3	A	7	3.6	Y	Absent	PCB-608(7)
L1110053-01H	Amber 1000ml Na2S2O3	A	7	3.6	Y	Absent	PCB-608(7)
L1110053-01I	Amber 1000ml HCl preserved	A	N/A	3.6	Y	Absent	TPH-1664(28)
L1110053-01J	Amber 1000ml HCl preserved	A	N/A	3.6	Y	Absent	TPH-1664(28)
L1110053-01K	Amber 500ml H2SO4preserved	A	<2	3.6	Y	Absent	TPHENOL-420(28)
L1110053-01L	Plastic 1000ml unpreserved	A	7	3.6	Y	Absent	TSS-2540(7)
L1110053-01M	Plastic 500ml unpreserved	A	7	3.6	Y	Absent	CL-300(28),TRC-4500(1),PH-4500(.01)
L1110053-01N	Plastic 500ml unpreserved	A	7	3.6	Y	Absent	HEXCR-3500(1)
L1110053-01O	Plastic 250ml HNO3 preserved	A	<2	3.6	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)
L1110053-01P	Plastic 250ml NaOH preserved	A	>12	3.6	Y	Absent	TCN-4500(14)
L1110053-02A	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1110053-02B	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	504(14)
L1110053-02C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1110053-02D	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	624(3)
L1110053-02E	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1110053-02F	Amber 1000ml unpreserved	A	7	3.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)

\*Values in parentheses indicate holding time in days



Project Name: 610 MAIN ST

Project Number: 4781.9.00

Lab Number: L1110053

Report Date: 09/20/11

## Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1110053-02G	Amber 1000ml Na2S2O3	A	7	3.6	Y	Absent	PCB-608(7)
L1110053-02H	Amber 1000ml Na2S2O3	B	7	3.9	Y	Absent	PCB-608(7)
L1110053-02I	Amber 1000ml HCl preserved	A	N/A	3.6	Y	Absent	TPH-1664(28)
L1110053-02J	Amber 1000ml HCl preserved	A	N/A	3.6	Y	Absent	TPH-1664(28)
L1110053-02K	Amber 500ml H2SO4preserved	B	<2	3.9	Y	Absent	TPHENOL-420(28)
L1110053-02L	Plastic 1000ml unpreserved	B	7	3.9	Y	Absent	TSS-2540(7)
L1110053-02M	Plastic 500ml unpreserved	B	7	3.9	Y	Absent	CL-300(28),TRC-4500(1),PH-4500(.01)
L1110053-02N	Plastic 500ml unpreserved	B	7	3.9	Y	Absent	HEXCR-3500(1)
L1110053-02O	Plastic 250ml HNO3 preserved	B	<2	3.9	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)
L1110053-02P	Plastic 250ml NaOH preserved	B	>12	3.9	Y	Absent	TCN-4500(14)
L1110053-03A	Vial Na2S2O3 preserved	B	N/A	3.9	Y	Absent	504(14)
L1110053-03B	Vial Na2S2O3 preserved	B	N/A	3.9	Y	Absent	504(14)
L1110053-03C	Vial Na2S2O3 preserved	B	N/A	3.9	Y	Absent	624(3)
L1110053-03D	Vial Na2S2O3 preserved	B	N/A	3.9	Y	Absent	624(3)
L1110053-03E	Amber 1000ml unpreserved	B	7	3.9	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1110053-03F	Amber 1000ml unpreserved	B	7	3.9	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1110053-03G	Amber 1000ml Na2S2O3	B	7	3.9	Y	Absent	PCB-608(7)
L1110053-03H	Amber 1000ml Na2S2O3	B	7	3.9	Y	Absent	PCB-608(7)
L1110053-03I	Amber 1000ml HCl preserved	B	N/A	3.9	Y	Absent	TPH-1664(28)
L1110053-03J	Amber 1000ml HCl preserved	B	N/A	3.9	Y	Absent	TPH-1664(28)
L1110053-03K	Amber 500ml H2SO4preserved	B	<2	3.9	Y	Absent	TPHENOL-420(28)
L1110053-03L	Plastic 1000ml unpreserved	B	7	3.9	Y	Absent	TSS-2540(7)
L1110053-03M	Plastic 500ml unpreserved	B	7	3.9	Y	Absent	CL-300(28),TRC-4500(1),PH-4500(.01)
L1110053-03N	Plastic 500ml unpreserved	B	7	3.9	Y	Absent	HEXCR-3500(1)
L1110053-03O	Plastic 250ml HNO3 preserved	A	<2	3.6	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)
L1110053-03P	Plastic 250ml NaOH preserved	B	>12	3.9	Y	Absent	TCN-4500(14)
L1110053-04A	Vial Na2S2O3 preserved	B	N/A	3.9	Y	Absent	HOLD(14)
L1110053-04B	Vial Na2S2O3 preserved	B	N/A	3.9	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days



**Project Name:** 610 MAIN ST**Project Number:** 4781.9.00**Lab Number:** L1110053**Report Date:** 09/20/11**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1110053-04C	Vial Na2S2O3 preserved	A	N/A	3.6	Y	Absent	HOLD(14)

\*Values in parentheses indicate holding time in days

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.00

**Lab Number:** L1110053  
**Report Date:** 09/20/11

## GLOSSARY

### Acronyms

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

- |          |  |
|----------|--|
| <b>A</b> | - Spectra identified as "Aldol Condensation Product".  |
| <b>B</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 five times (5x) 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. |
| <b>C</b> | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.   |
| <b>D</b> | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.  |
| <b>E</b> | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.   |
| <b>G</b> | - 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.   |
| <b>H</b> | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.   |
| <b>I</b> | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.   |
| <b>M</b> | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.   |
| <b>P</b> | - The RPD between the results for the two columns exceeds the method-specified criteria.   |
| <b>Q</b> | - The quality control sample exceeds the associated acceptance criteria. 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   |

**Report Format:** Data Usability Report



**Project Name:** 610 MAIN ST**Lab Number:** L1110053**Project Number:** 4781.9.00**Report Date:** 09/20/11**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.**RE** - Analytical results are from sample re-extraction.**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.00

**Lab Number:** L1110053  
**Report Date:** 09/20/11

## REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997.
- 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.



## Certificate/Approval Program Summary

Last revised September 19, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.  
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

### Maine Department of Human Services Certificate/Lab ID: 2009024.

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500Cl-D, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

### Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

*Drinking Water* (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

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for: *Non-Potable Water* (Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3550B, 3580A, 3630C, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.**

*Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters:*



**Pennsylvania Department of Environmental Protection** Certificate/Lab ID: 68-03671. **NELAP Accredited.**  
*Drinking Water* (Organic Parameters: EPA 524.2, 504.1)

*Non-Potable Water* (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE.  
Organic Parameters: EPA 3510C, 3005A, 3630C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**  
 Refer to MA-DEP Certificate for Potable and Non-Potable Water.  
 Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality** Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**  
*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S<sup>2-</sup> D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Department of Defense** Certificate/Lab ID: L2217.  
*Drinking Water* (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix, SO<sub>4</sub> in a soil matrix.





## ANALYTICAL REPORT

Lab Number:	L1113083
Client:	McPhail Associates 2269 Massachusetts Avenue Cambridge, MA 02140
ATTN:	Ambrose Donovan
Phone:	(617) 868-1420
Project Name:	610 MAIN ST
Project Number:	4781.9.01
Report Date:	08/26/11

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 NELAC (11148), CT (PH-0574), NH (2003), NJ (MA935), RI (LAO00065), ME (MA0086), PA (Registration #68-03671), USDA (Permit #S-72578), US Army Corps of Engineers, Naval FESC.

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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:** 610 MAIN ST  
**Project Number:** 4781.9.01

**Lab Number:** L1113083  
**Report Date:** 08/26/11

<b>Alpha Sample ID</b>	<b>Client ID</b>	<b>Sample Location</b>	<b>Collection Date/Time</b>
L1113083-01	G-6 8/23/11	CAMBRIDGE	08/23/11 14:00

Project Name: 610 MAIN ST

Lab Number: L1113083

Project Number: 4781.9.01

Report Date: 08/26/11

**MADEP MCP Response Action Analytical Report Certification**

**This form provides certifications for all samples performed by MCP methods. Please refer to the Sample Results and Container Information sections of this report for specification of MCP methods used for each analysis. The following questions pertain only to MCP Analytical Methods.**

<b>An affirmative response to questions A through F is required for "Presumptive Certainty" status</b>		
A	Were all samples received in a condition consistent with those described on the Chain-of-Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	YES
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	YES
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	YES
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data?"	YES
E a.	VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? (Refer to the individual method(s) for a list of significant modifications).	N/A
E b.	APH and TO-15 Methods only: Was the complete analyte list reported for each method?	N/A
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to Questions A through E)?	YES
<b>A response to questions G, H and I is required for "Presumptive Certainty" status</b>		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	YES
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	YES
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
<b>For any questions answered "No", please refer to the case narrative section on the following page(s).</b>		

**Please note that sample matrix information is located in the Sample Results section of this report.**



**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.01

**Lab Number:** L1113083  
**Report Date:** 08/26/11

### 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. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

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.

For additional information, please contact Client Services at 800-624-9220.

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### MCP Related Narratives

#### Dissolved Metals

In reference to question I:

All samples were analyzed for a subset of MCP elements per the Chain of Custody.

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: 08/26/11

## METALS

Project Name: 610 MAIN ST

Lab Number: L1113083

Project Number: 4781.9.01

Report Date: 08/26/11

**SAMPLE RESULTS**

Lab ID: L1113083-01

Date Collected: 08/23/11 14:00

Client ID: G-6 8/23/11

Date Received: 08/23/11

Sample Location: CAMBRIDGE

Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab											
Lead, Dissolved	ND		mg/l	0.010	--	1	08/24/11 14:48	08/25/11 08:44	EPA 3005A	97,6010B	AI





Project Name: 610 MAIN ST

Lab Number: L1113083

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## Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Dissolved Metals - Westborough Lab for sample(s): 01 Batch: WG486325-1										
Lead, Dissolved	ND		mg/l	0.010	--	1	08/24/11 14:48	08/25/11 08:35	97,6010B	AI

### Prep Information

Digestion Method: EPA 3005A

## Lab Control Sample Analysis

### Batch Quality Control

**Project Name:** 610 MAIN ST

**Project Number:** 4781.9.01

**Lab Number:** L1113083

**Report Date:** 08/26/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG486325-2 WG486325-3								
Lead, Dissolved	108		103		80-120	5		20

Project Name: 610 MAIN ST

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**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(*)
L1113083-01A	Plastic 1000ml unpreserved	A	7	2.6	Y	Absent	-
L1113083-01B	Plastic 1000ml unpreserved	A	7	2.6	Y	Absent	-
L1113083-01X	Plastic 250ml HNO3 preserved spl	A	<2	2.6	Y	Absent	MCP-PB-6010S-10(180)
L1113083-01Y	Plastic 250ml HNO3 preserved spl	A	<2	2.6	Y	Absent	MCP-PB-6010S-10(180)

\*Values in parentheses indicate holding time in days

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.01

**Lab Number:** L1113083  
**Report Date:** 08/26/11

## GLOSSARY

### Acronyms

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

- |          |  |
|----------|--|
| <b>A</b> | - Spectra identified as "Aldol Condensation Product".  |
| <b>B</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 five times (5x) 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. |
| <b>C</b> | - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.   |
| <b>D</b> | - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.  |
| <b>E</b> | - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.   |
| <b>G</b> | - 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.   |
| <b>H</b> | - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.   |
| <b>I</b> | - The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.   |
| <b>M</b> | - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.   |
| <b>P</b> | - The RPD between the results for the two columns exceeds the method-specified criteria.   |
| <b>Q</b> | - The quality control sample exceeds the associated acceptance criteria. 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   |

**Report Format:** Data Usability Report



**Project Name:** 610 MAIN ST**Lab Number:** L1113083**Project Number:** 4781.9.01**Report Date:** 08/26/11**Data Qualifiers**

than 5x the RL. (Metals only.)

**R** - Analytical results are from sample re-analysis.**RE** - Analytical results are from sample re-extraction.**J** - Estimated value. This represents an estimated concentration for Tentatively Identified Compounds (TICs).**ND** - Not detected at the reporting limit (RL) for the sample.

**Project Name:** 610 MAIN ST  
**Project Number:** 4781.9.01

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## REFERENCES

- 97 EPA Test Methods (SW-846) with QC Requirements & Performance Standards for the Analysis of EPA SW-846 Methods under the Massachusetts Contingency Plan, WSC-CAM-IIA, IIB, IIIA, IIIB, IIIC, IIID, VA, VB, VC, VIA, VIB, VIIIA and VIIIB, July 2010.

## 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.



## Certificate/Approval Program Summary

Last revised July 28, 2011 - Westboro Facility

The following list includes only those analytes/methods for which certification/approval is currently held.  
For a complete listing of analytes for the referenced methods, please contact your Alpha Customer Service Representative.

### Connecticut Department of Public Health Certificate/Lab ID: PH-0574. **NELAP Accredited Solid Waste/Soil.**

*Drinking Water* (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Vanadium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP), Ethylene Dibromide (EDB), 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223 P/A), E. Coli. – Colilert (SM9223 P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D))

*Wastewater/Non-Potable Water* (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E).)

*Solid Waste/Soil* (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Volatile Organics, Acid Extractables (Phenols), 3,3'-Dichlorobenzidine, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons. )

### Maine Department of Human Services Certificate/Lab ID: 2009024.

*Drinking Water* (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2130B, 2320B, 2540C, 4500CI-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

*Wastewater/Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664A, 350.1, 351.1, 353.2, 410.4, 420.1, SM2320B, 2510B, 2540C, 2540D, 426C, 4500CI-D, 4500CI-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-B, 4500Norg-C, 4500NH3-B, 4500NH3-G, 4500NH3-H, 4500NO3-F, 4500P-B, 4500P-E, 5210B, 5220D, 5310C, 9010B, 9040B, 9030B, 7470A, 7196A, 2340B, EPA 200.7, 6010, 200.8, 6020, 245.1, 1311, 1312, 3005A, Enterolert, 9223D, 9222D. Organic Parameters: 608, 8081, 8082, 8330, 8151A, 624, 8260, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

*Solid Waste/Soil* (Inorganic Parameters: 9010B, 9012A, 9014A, 9040B, 9045C, 6010B, 7471A, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260B, 8270C, 8330, 8151A, 8081A, 8082, 3540C, 3546, 3580A, 3630C, 5030B, 5035.)

### Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.

*Drinking Water* (Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water* (Inorganic Parameters: (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl, V,Zn); 245.1, SM4500H,B, EPA 120.1,

SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.

Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, Aldrin, Dieldrin, DDD, DDE, DDT, Heptachlor, Heptachlor Epoxide, PCBs-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B;Enterolert-QT: SM9222D-MF.)

**New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 245.2, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, 245.2, SW-846 6010B, 6020, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 1664A, SW-846 9010, 9030, 9040B, 9050A, SM426C, SM2120B, 2310B, 2320B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D. Organic Parameters: SW-846 3510C, 5030B, 8260B, 8270C, 8330, EPA 624, 625, 608, SW-846 8082, 8081A, 8151A.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846 6010B, 7196A, 7471A, 1010, 1030, 9010, 9012A, 9014, 9030B, 9040B, 9045C, 9050C, 9065,1311, 1312, 3005A, 3050B. Organic Parameters: SW-846 3540C, 3546, 3580A, 5030B, 5035, 8260B, 8270C, 8330, 8151A, 8015B, 8082, 8081A.)

**New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.2, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

*Non-Potable Water* (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500CI-E, EPA 300.0, SM2120B, SM4500F-BC, EPA 200.7, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 6020, 6020A, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, 3015, EPA 6010B, 6010C, 7196A, 3060A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8081B, 8082, 8082A, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

*Solid & Chemical Materials* (Inorganic Parameters: SW-846, 6010B, 6010C, 7196A, 3060A, 9010B, 9030B, 1010, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9014, 9012A, 9040B, 9045C, 9050A, 9065. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5030B, 5035L, 5035H, NJ OQA-QAM-025 Rev.7, NJ EPH.)

**New York Department of Health Certificate/Lab ID: 11148. *NELAP Accredited.***

*Drinking Water* (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.2, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500H-B, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B-4a, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, LACHAT 10-107-04-1-C, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010B, 6020, EPA 7196A, SM3500Cr-D, EPA 245.1, 245.2, 7470A, SM2120B, LACHAT 10-204-00-1-A, EPA 9040B, SM4500-HB, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 3005A, 9010B, 9030B.. Organic Parameters: EPA 624, 8260B, 8270C, 625, 608, 8081A, 8151A, 8330, 8082, EPA 3510C, 5030B.)

*Solid & Hazardous Waste* (Inorganic Parameters: 1010, 1030, EPA 6010B, 7196A, 7471A, 9012A, 9014, 9040B, 9045C, 9065, 9050, EPA 1311, 1312, 3005A, 3050B, 9010B, 9030B. Organic Parameters: EPA 8260B, 8270C, 8015B, 8081A, 8151A, 8330, 8082, 3540C, 3545, 3546, 3580, 5030B, 5035.)

**North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. Organic Parameters: MA-EPH, MA-VPH.**

*Drinking Water Program Certificate/Lab ID: 25700. (Inorganic Parameters: Chloride EPA 300.0. Organic Parameters: 524.2)*



**Pennsylvania Department of Environmental Protection** Certificate/Lab ID : 68-03671. **NELAP Accredited.**  
*Drinking Water* (Organic Parameters: EPA 524.2, 504.1)

*Non-Potable Water* (Inorganic Parameters: EPA 1312, 200.7, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE.  
Organic Parameters: EPA 3510C, 5030B, 625, 624, 608, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3050B, 6010B, 7196A, 7471A, 9010B, 9012A, 9014, 9040B, 9045C, 9050, 9065, SM 4500NH3-H. Organic Parameters: 3540C, 3545, 3546, 3550B, 3580A, 3630C, 5035, 8015B, 8081A, 8082, 8151A, 8260B, 8270C, 8330)

**Rhode Island Department of Health** Certificate/Lab ID: LAO00065. **NELAP Accredited via NY-DOH.**  
 Refer to MA-DEP Certificate for Potable and Non-Potable Water.  
 Refer to NJ-DEP Certificate for Potable and Non-Potable Water.

**Texas Commission on Environmental Quality** Certificate/Lab ID: T104704476-09-1. **NELAP Accredited.**

*Non-Potable Water* (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 376.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 S<sup>2-</sup> D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 1311, 1312, 9012, 9014, 9040, 9045, 9050, 9065.)

**Department of Defense** Certificate/Lab ID: L2217.

*Drinking Water* (Inorganic Parameters: SM 4500H-B. Organic Parameters: EPA 524.2, 504.1.)

*Non-Potable Water* (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6020, 245.1, 245.2, 7470A, 9040B, 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 5220D, 5310C, 2320B, 2540C, 3005A, 3015, 9010B, 9056. Organic Parameters: EPA 8260B, 8270C, 8330A, 625, 8082, 8081A, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

*Solid & Hazardous Waste* (Inorganic Parameters: EPA 200.7, 6010B, 7471A, 9010, 9012A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8270C, 8330A/B-prep, 8082, 8081A, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

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

**EPA 8260B:** Freon-113, 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methyl naphthalenes, Total Dimethyl naphthalenes, 1,4-Diphenylhydrazine (Azobenzene). **EPA 625:** 4-Chloroaniline, 4-Methylphenol. Total Phosphorus in a soil matrix, Chloride in a soil matrix, TKN in a soil matrix, NO<sub>2</sub> in a soil matrix, NO<sub>3</sub> in a soil matrix, SO<sub>4</sub> in a soil matrix.





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## **APPENDIX D**

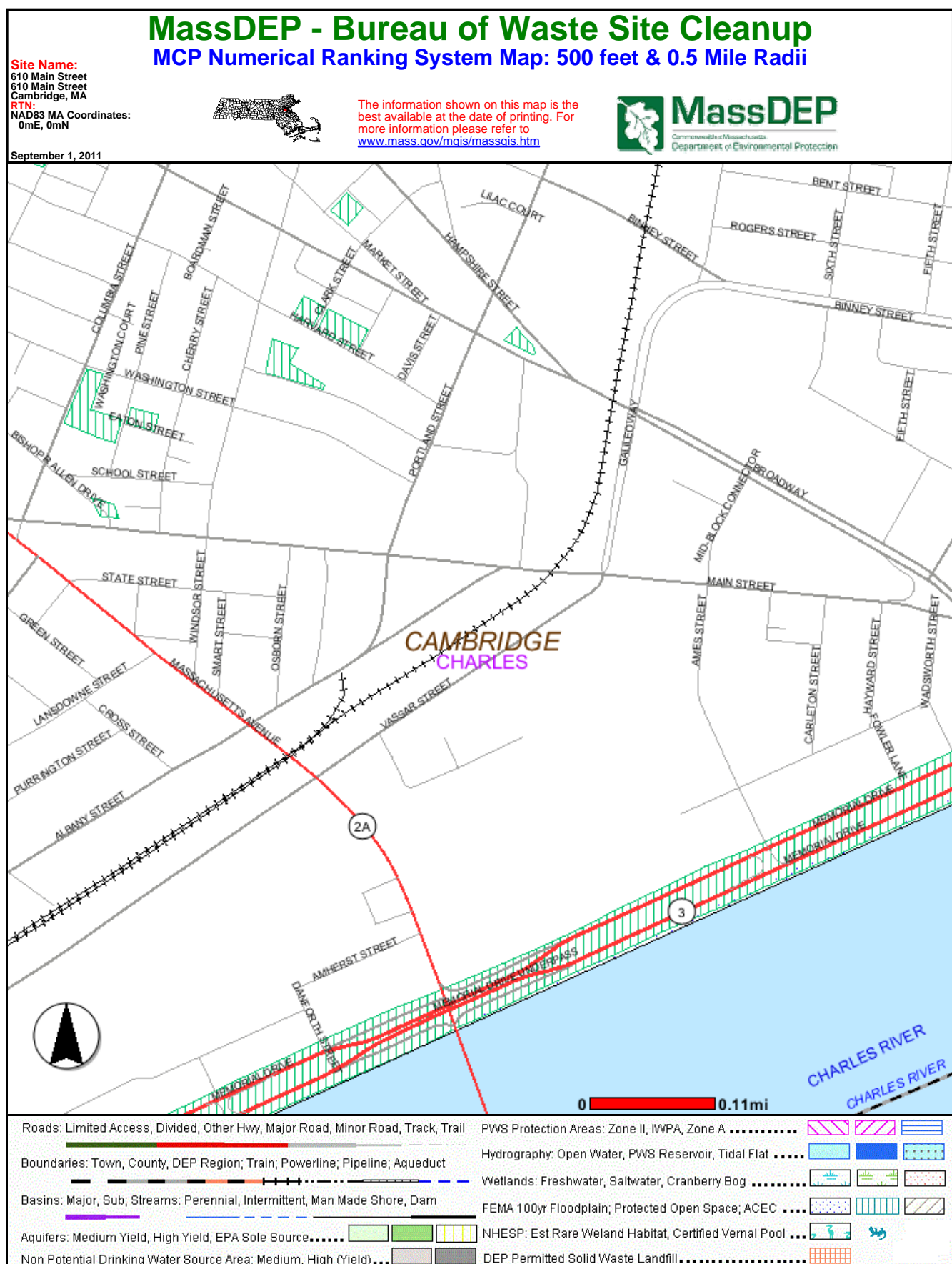
### **AREAS OF CRITICAL CONCERN, ENDANGERED AND THREATENED SPECIES**

The address of 610 Main Street is located north of the Charles River, in the Kendall Square area of Cambridge, Massachusetts. Based on a review of Massachusetts Geographic Information Systems DEP Priority Resources' Map, there are no drinking water supplies, no Areas of Critical Environmental Concern, no Sole Source Aquifers, no fish habitats, and no habitats of Species of Special Concern or Threatened or Endangered Species at or within 500-feet of the subject site. No Protected Open Space is indicated within 500-feet of the subject property. Wetlands and a 500-year flood zone are indicated along part of the seawall to the north of the property.

There are no surface water bodies located within the site boundaries. The Charles River is located approximately 2,000 feet to the south of the subject site.

A review of the most recent federal listing of threatened and endangered species published by the U.S. Fish and Wildlife Service did not identify the presence of threatened and/or endangered species or critical habitats at or in the vicinity of the discharge location and/or discharge outfall. In addition, a review of the Massachusetts Division of Fisheries and Wildlife on-line database did not indicate the presence of threatened or endangered species at the point of discharge and/or the discharge outfall.

Based upon the above, the site is considered criterion A pursuant to Appendix VII of the RGP.



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## MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

June 2009

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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**

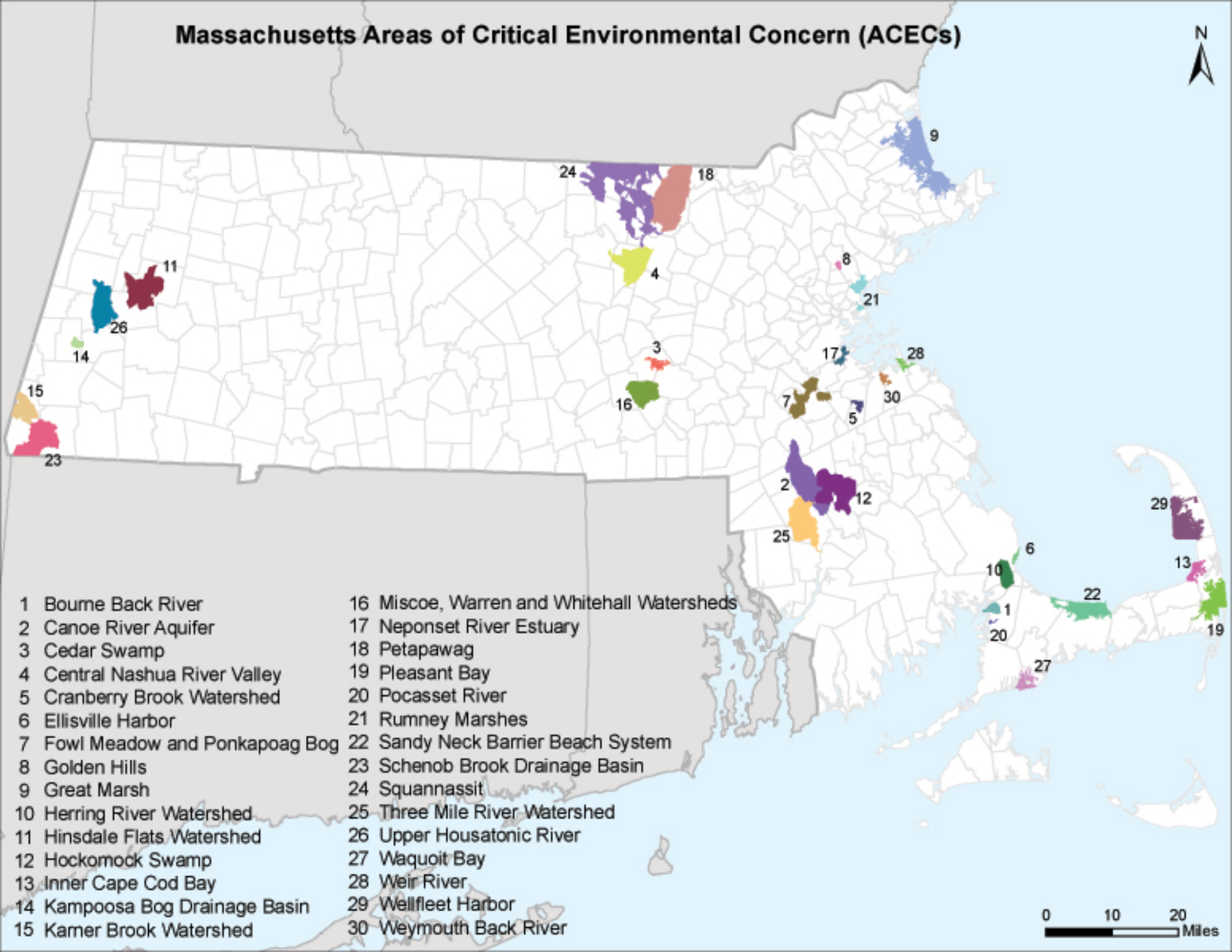
(800 acres, 1982) Hingham and Weymouth

## Towns with ACECs within their Boundaries

June 2009

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)

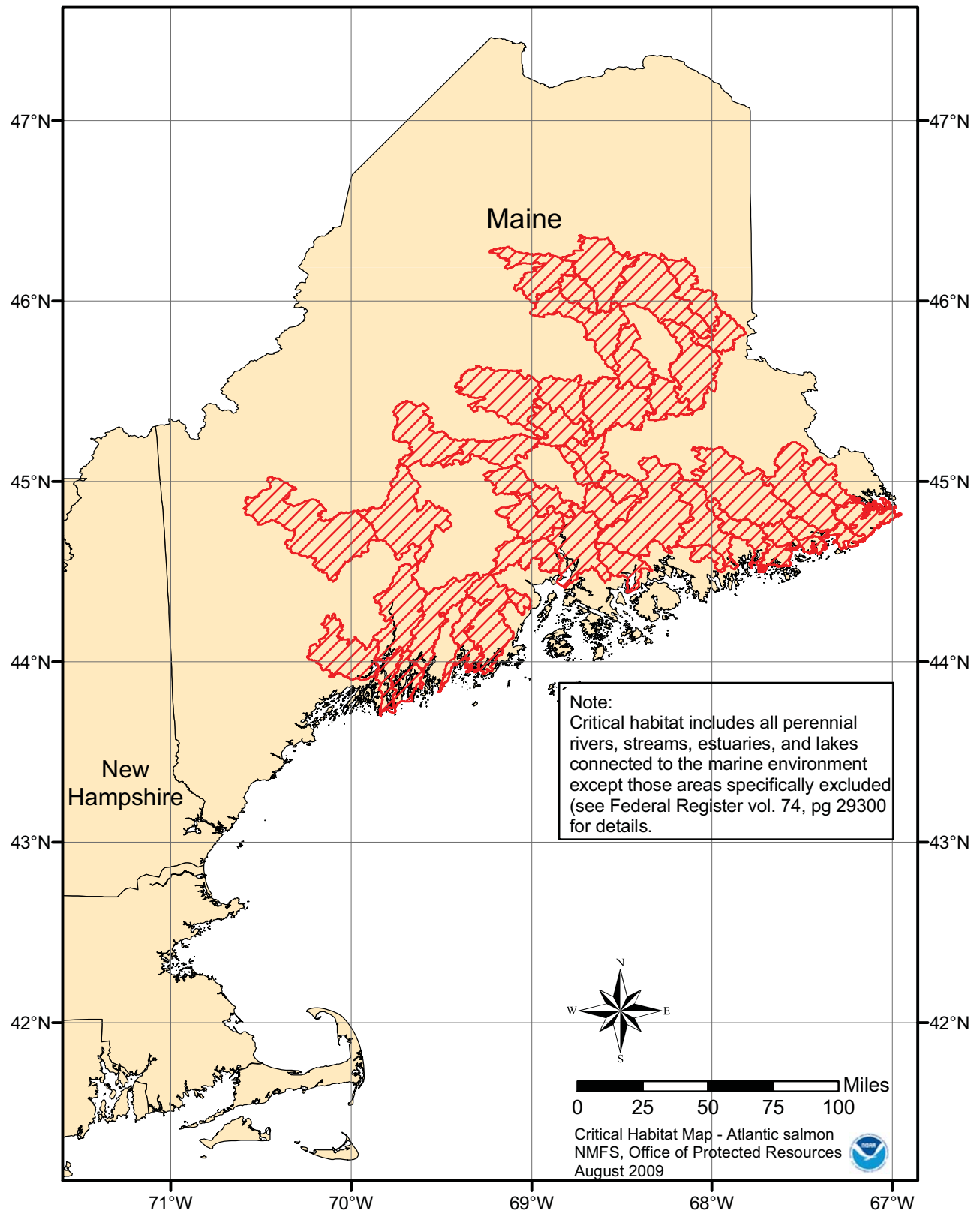


0 10 20 Miles

- |                                 |  |
|---------------------------------|--|
| 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                     |

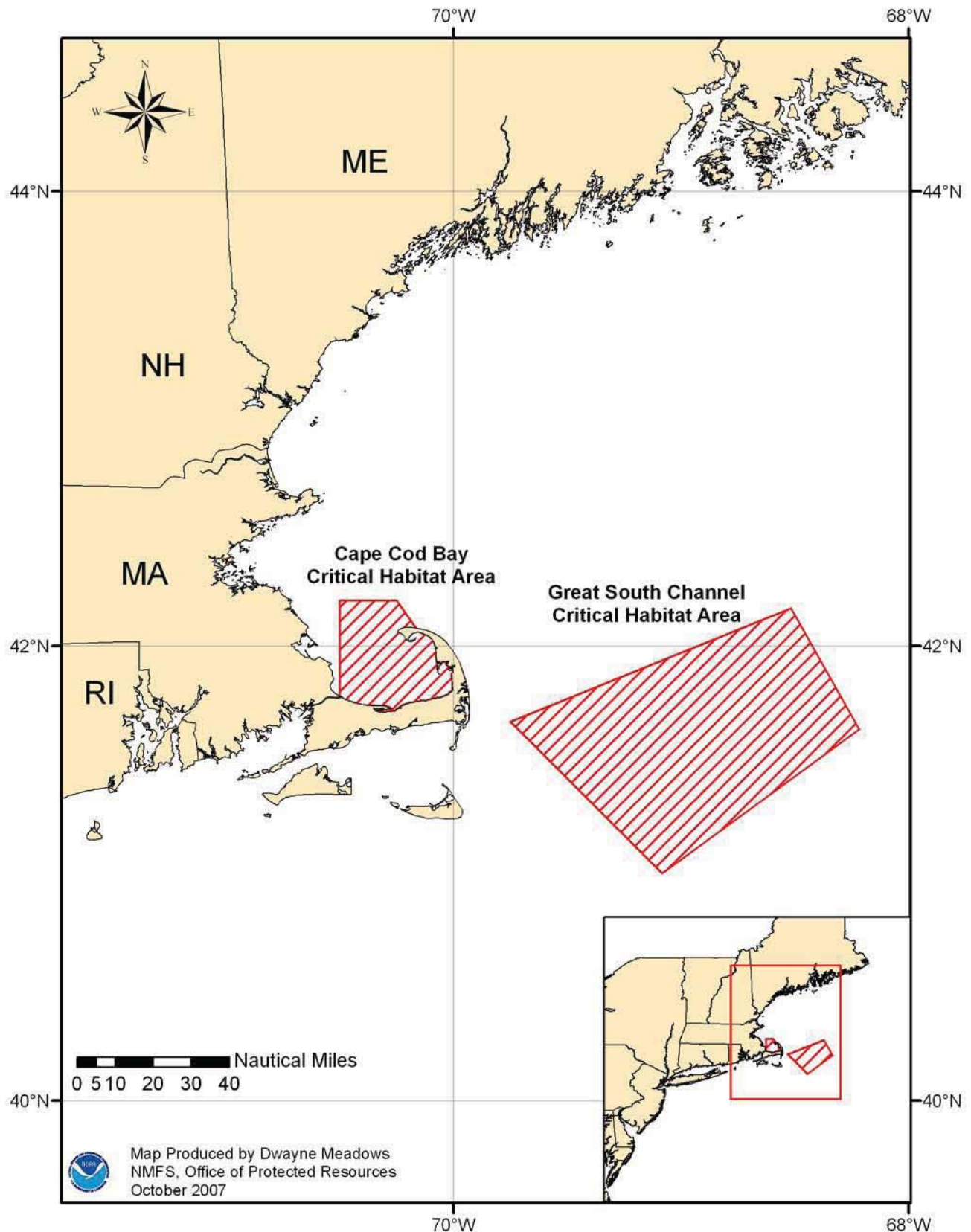


# Atlantic Salmon Critical Habitat





# Northern Right Whale Critical Habitat: Northeast Atlantic



# **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	Raynham and 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	Glocester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague
	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.	Hadley, 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, and Wareham
	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.

7/31/2008



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## **APPENDIX E**

### **NATIONAL REGISTER OF HISTORIC PLACES**

The National Register of Historic Places on-line database was reviewed for listings located within the immediate vicinity of the subject site in Cambridge, Massachusetts. A review of the most recent National Register of Historical Places for Middlesex County, Massachusetts did not identify records or addresses of Historic Places that exist in the immediate vicinity of the subject site and/or outfall location. The nearest listing of a National Historic Place to the subject site is the North Avenue Congregational Church which is located greater than 1,000 feet to the southwest of the subject site. It is not anticipated that dewatering activities at the subject site will affect the North Avenue Congregational Church National Historic Place.

Based upon the above, the site considered criterion 2 pursuant to Appendix IV of the RGP.



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## **APPENDIX F**

### **Best Management Practice 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 at 610 Main Street located 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 effluent is anticipated to be pumped from localized sumps and trenches within the excavation and directly into a settling tank. The effluent will then flow through any necessary treatment systems and discharge through hoses into City of Cambridge storm water drain lines which discharge into the Charles River. Dewatering effluent treatment may consist of bag filters, ion exchange, and/or precipitation, as required.

#### **Discharge Monitoring and Compliance**

Regular sampling and testing will be conducted at the influent to the system and the treated effluent as required by the RGP. This includes analytical testing required within days 1 and 3 of initial discharge 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



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### **System Maintenance**

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

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

### **Miscellaneous Items**

It is anticipated that discharge into the City of Cambridge storm water drain line will minimize potential runoff to or from the site. Site security for the treatment system will be covered within the overall site security plan.

Dewatering effluent will be pumped to a settling tank. Water within the settling tank will be pumped through bag filters in series prior to discharge into the storm drains.

### **Management of Treatment System Materials**

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 for equipment or materials storage that may be possible sources of pollution that will be located away from any dewatering activities, to the extent practicable.

Sediment from the tank used in the treatment system will be characterized and removed from the site to an appropriate receiving facility, in accordance with applicable laws and regulations. If used, the ion exchange resin may be recycled and/or removed from the site to an appropriate receiving facility. Bag filters will be disposed of as necessary.