



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

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

CERTIFIED MAIL

APR 6 2011

Kevin Garity, Project Manager
McCourt Construction Company
60 K Street
Boston, MA 02127

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000. Chelsea River Submarine Conduit site located at 260 Marginal Street and
338 East Eagle Street, Chelsea and East Boston, Massachusetts 02150, Suffolk County;
Authorization # MAG910480.

Dear Mr. Garity:

Based on the review of your Notice of Intent (NOI) submitted on behalf of NSTAR Gas and Electric Corporation 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 check list 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 the parameters which you have marked "Believed Present". The checklist also includes tert-butyl alcohol (TBA), tert-amyl methyl ether (TAME), and 1, 4-Dioxane, which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum level established in Appendix VI of the RGP.

In addition please note that the metals included on the list are dilution dependent pollutants subject to limitations based on selected dilution ranges and technology-based

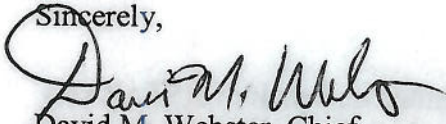
ceiling limitations for facilities located in Massachusetts. With the absence of dilution of freshwater into tidal water, EPA determined that the Dilution Factor Range (DFR) for each parameter is in the one and five (1-5) range. (See Appendix IV of the RGP for Massachusetts facilities) Therefore, the limits for antimony of 5.6ug/L, arsenic of 36ug/L, trivalent chromium of 100ug/L, hexavalent chromium of 50.3ug/L, copper of 3.7ug/L, lead of 8.5ug/L, nickel of 8.2ug/L, zinc of 85.6ug/L and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

Finally, please note the list 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 requirements.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on April 1, 2012. 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, if you have any questions.

Sincerely,


David M. Webster, Chief
Industrial Permits Branch

Enclosure

cc: Kathylene Keohane

**2010 Remediation General Permit
Summary of Monitoring Parameters^[1]**

NPDES Permit Number:	MAG910480 - New
Date Permit Issued:	April, 2011
Facility/Site Name:	Chelsea River Submarine Conduit
Facility/Site Address:	260 Marginal Street and 338 East Eagle Street, Suffolk County Email of owner: henry.ohein@NSTAR.com; Phone n: 781-441-3236
Legal Name of operator:	McCourt Construction Company
Operator contact name, title, and Address:	60 K Street, Boston, MA 02127 Email kgarity@mccourtconstruction.com
Estimated Date of Completion:	April 1, 2012
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Subcategory B. Know Contaminated Sites
Receiving Water:	Chelsea River

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

	<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)
✓	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/l) **, 50 mg/l for hydrostatic testing **, Me#60.2/5mL
✓	2. Total Residual Chlorine (TRC) ¹	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/5.0mg/LmL
✓	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/l **/ Me#335.4/ML 5ug/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 (BTEX) ⁴	100 ug/l)/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
✓	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l /Me#8260C/ ML 10ug/L
✓	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only (ug/L)/ Me#8260C/ ML 10ug/L
	13. tert-Amyl Methyl Ether	Monitor Only (ug/L) /Me#8260C/ ML

	Parameter	Effluent Limit/Method# /ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	(TAME)	10ug/L
	14. Naphthalene ⁵	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/ ML5ug/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/ML50 ug/L
✓	31. Total Phenols	300 ug/l Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML50 ug/L
✓	32. Pentachlorophenol (PCP)	1.0 ug/l /Me#8270D/ML5ug/L,Me#604 &625/ML10ug/L
✓	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML5ug/L,Me#606/ML10ug/L& Me#625/ML5ug/L
✓	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/l /Me#8270D/ML5ug/L,Me#606/ML10ug/L& Me#625/ML5ug/L
✓	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/l
✓	a. Benzo(a) Anthracene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
✓	b. Benzo(a) Pyrene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
✓	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
✓	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/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)
		Me#610/ML5ug/L& Me#625/ML5ug/L
✓	e. Chrysene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
✓	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
✓	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/l /Me#8270D/ ML5ug/L, Me#610/ML5ug/L& Me#625/ML5ug/L
✓	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/l
✓	h. Acenaphthene	X/Me#8270D/ML5ug/L,Me#610/ML5ug /L & Me#625/ML5ug/L
✓	i. Acenaphthylene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
✓	j. Anthracene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
✓	l. Fluoranthene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
✓	m. Fluorene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
✓	n. Naphthalene ⁵	20 ug/l / Me#8270D/ ML5ug/L, Me#610/ML5ug/L & Me#625/ML5ug/L
✓	o. Phenanthrene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
✓	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML5ug/L & Me#625/ML5ug/L
✓	37. Total Polychlorinated Biphenyls (PCBs) ^{8, 9}	0.000064 ug/L / Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 0.1ug/L

	<u>Metal parameter</u>	<u>Total Recoverable Metal Limit @ H ¹⁰ = 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) ¹¹</u>	
		<u>Saltwater</u>	
✓	39. Antimony	5.6/10mL	
✓	40. Arsenic **	36/20mL	
	41. Cadmium **	8.9/10mL	
✓	42. Chromium III (trivalent) **	100/15mL	
✓	43. Chromium VI (hexavalent) **	50.3/10mL	
✓	44. Copper **	3.7/15mL	

		Total Recoverable Metal Limit @ H¹⁰ = 50 mg/l CaCO₃ for discharges in Massachusetts (ug/l)¹¹	
Metal parameter		Saltwater	
✓	45. Lead **	8.5/20mL	
	46. Mercury **	1.1/0.2mL	
✓	47. Nickel **	8.2/20mL	
	48. Selenium **	71/20mL	
	49. Silver	2.2/10mL	
✓	50. Zinc **	85.6/15mL	
✓	51. Iron	1,000/20mL	
✓	52. 2-methylnaphthalene	Monitoring Only	

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

Footnotes:

¹ 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).

² 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.

³ 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).

⁴ BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.

⁵ 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.

⁶ 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.

⁷ 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.

⁸ 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.

⁹ 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).

¹⁰ Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

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

¹² 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).

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

¹⁴ Temperature sampling per Method 170.1

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 facility/site : Chelsea River Submarine Conduit		Facility/site mailing address:	
Location of facility/site : longitude: 71deg, 1' 37.84" latitude: 42deg, 23' 9.70"	Facility SIC code(s):	Street: 260 Marginal Street and 338 East Eagle Street	
b) Name of facility/site owner :		Town: Chelsea and East Boston	
Email address of facility/site owner: henry.oheim@NSTAR.com		State: Massachusetts	Zip: 02150
Telephone no. of facility/site owner : 781-441-3236		County: Suffolk	
Fax no. of facility/site owner :		Owner is (check one): 1. Federal ☐ 2. State/Tribal ☐	
Address of owner (if different from site):		3. Private ☒ 4. Other ☐ if so, describe: NSTAR Gas & Electric Corp. - Henry V. Oheim	
Street: One NSTAR Way			
Town: Westwood	State: MA	Zip: 02090	County: Norfolk
c) Legal name of operator : McCourt Construction Company		Operator telephone no: 617-269-2330	
Operator fax no.: 617-269-2313		Operator email: kgarity@mccourtconstruction.c	
Operator contact name and title: Kevin Garity - Project Manager			
Address of operator (if different from owner):		Street: 60 K Street	
Town: Boston	State: MA	Zip: 02127	County: Suffolk

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

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

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

If Y, please list:

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

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

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

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

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

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

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

Construction dewatering activities during installation of a submarine electrical conduit beneath the Chelsea River.

b) Provide the following information about each discharge:

1) Number of discharge points:	2	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow 0.223 Is maximum flow a design value ? Y ☒ N ☐ Average flow (include units) 0.111 Is average flow a design value or estimate? Estimate
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3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat. 42deg, 23' 9.06"	long. 71deg, 1' 67"	pt.2: lat. 42deg, 22' 55.54"	long. 71deg, 1' 43.07"	:
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 ☒ or seasonal ☐?
Is discharge ongoing? Y ☐ N ☒

c) Expected dates of discharge (mm/dd/yy): start Apr 1, 2011 end Apr 1, 2012

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). Flow schematic drawing is included as Figure 1 of this submittal.

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)		☐	☒	1	Grab	2540D	5,000 ug/L	55,000 ug/L	66 lb/day	55,000 ug/L	33 lb/day
2. Total Residual Chlorine (TRC)		☐	☒	1	Grab	4500CL-D	10 ug/L	ND	NA	ND	NA
3. Total Petroleum Hydrocarbons (TPH)		☐	☒	1	Grab	1664A	946 ug/L	ND	NA	ND	ND
4. Cyanide (CN)	57125	☐	☒	1	Grab	4500CN-NE	1.0 ug/L	8.0 ug/L	0.0096 lb/day	8.0 ug/L	0.0048 lb/d
5. Benzene (B)	71432	☐	☒	1	Grab	624	7.1 ug/L	1,200 ug/L	1.44 lb/day	1,200 ug/L	0.72 lb/day
6. Toluene (T)	108883	☐	☒	1	Grab	624	10 ug/L	1,100 ug/L	1.32 lb/day	1,100 ug/L	0.66 lb/day
7. Ethylbenzene (E)	100414	☐	☒	1	Grab	624	7.6 ug/L	300 ug/L	0.36 lb/day	300 ug/L	0.18 lb/day
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☐	☒	1	Grab	624	15 ug/L	620 ug/L	0.74 lb/day ⁺	620 ug/L	0.37 lb/day
9. Total BTEX ²	n/a	☐	☒	1	Grab	624	15 ug/L	3,220 ug/L	3.87 lb/day	3,220 ug/L	1.93 lb/day
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934	☒	☐	1	Grab	504.1	0.003 ug/L	ND	NA	ND	NA
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	Grab	624	12 ug/L	ND	NA	ND	NA
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	Grab	624	6.0 ug/L	ND	NA	ND	NA

* 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.

² BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

³ 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	☒	☐	1	Grab	624	0.26 ug/L	ND	NA	ND	NA
14. Naphthalene	91203	☐	☒	1	Grab	8270C-SIM	20 ug/L	6,100 ug/L	7.33 lb/day	6,100 ug/L	3.66 lb/day
15. Carbon Tetrachloride	56235	☐	☒	1	Grab	624	7.7 ug/L	ND	NA	ND	NA
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	Grab	624	15 ug/L	ND	NA	ND	NA
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	Grab	624	18 ug/L	ND	NA	ND	NA
18. 1,4 Dichlorobenzene (p-DCB)	106467	☐	☒	1	Grab	624	17 ug/L	ND	NA	ND	NA
18a. Total dichlorobenzene		☒	☐								
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	Grab	624	7.2 ug/L	ND	NA	ND	NA
20. 1,2 Dichloroethane (DCA)	107062	☐	☒	1	Grab	624	8.3 ug/L	ND	NA	ND	NA
21. 1,1 Dichloroethene (DCE)	75354	☐	☒	1	Grab	624	6.6 ug/L	ND	NA	ND	NA
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	Grab	624	7.6 ug/L	ND	NA	ND	NA
23. Methylene Chloride	75092	☐	☒	1	Grab	624	13 ug/L	ND	NA	ND	NA
24. Tetrachloroethene (PCE)	127184	☐	☒	1	Grab	624	8.8 ug/L	ND	NA	ND	NA
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	Grab	624	6.1 ug/L	ND	NA	ND	NA
26. 1,1,2 Trichloro-ethane (TCA)	79005	☐	☒	1	Grab	624	8.0 ug/L	22 ug/L	0.026	22 ug/L	0.013
27. Trichloroethene (TCE)	79016	☐	☒	1	Grab	624	7.4 ug/L	ND	NA	ND	NA

<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	☐	☒	1	Grab	624	7.1 ug/L	ND	NA	ND	NA
29. Acetone	67641	☒	☐	1	Grab	624	36 ug/L	ND	NA	ND	NA
30. 1,4 Dioxane	123911	☒	☐	1	Grab	624	490 ug/L	ND	NA	ND	NA
31. Total Phenols	108952	☐	☒	1	Grab	8270C-SIM	4.5 ug/L	250 ug/L	0.46 lb/day	250 ug/L	0.23 lb/day
32. Pentachlorophenol (PCP)	87865	☐	☒	1	Grab	8270C-SIM	3.7 ug/L	ND	NA	ND	NA
33. Total Phthalates (Phthalate esters) ⁴		☐	☒	1	Grab	8270C-SIM	9.6 ug/L	ND	NA	ND	NA
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☐	☒	1	Grab	8270C-SIM	9.6 ug/L	ND	NA	ND	NA
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	1	Grab	8270C-SIM	1.1 ug/L	22.3 ug/L	0.027 lb/d +	22.3 ug/L	0.013 lb/ +
a. Benzo(a) Anthracene	56553	☐	☒	1	Grab	8270C-SIM	0.76 ug/L	6.2 ug/L	0.007 lb/day	6.2 ug/L	0.004 lb/day
b. Benzo(a) Pyrene	50328	☐	☒	1	Grab	8270C-SIM	0.80 ug/L	6.5 ug/L	0.008 lb/day	6.5 ug/L	0.004 lb/day
c. Benzo(b)Fluoranthene	205992	☐	☒	1	Grab	8270C-SIM	1.0 ug/L	6.6 ug/L	0.008 lb/	6.6 ug/L	0.004 lb
d. Benzo(k)Fluoranthene	207089	☐	☒	1	Grab	8270C-SIM	0.72 ug/L	1.3 ug/L	0.002 lb/	1.3 ug/L	0.001 lb
e. Chrysene	21801	☐	☒	1	Grab	8270C-SIM	0.68 ug/L	1.7 ug/L	0.002 lb/day	1.7 ug/L	0.001 lb/day
f. Dibenzo(a,h)anthracene	53703	☐	☒	1	Grab	8270C-SIM	1.1 ug/L	ND	NA	ND	NA
g. Indeno(1,2,3-cd) Pyrene	193395	☐	☒	1	Grab	8270C-SIM	0.68 ug/L	ND	NA	ND	NA
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☐	☒	1	Grab	8270C-SIM	1.0 ug/L	4,437 ug/L	5.33 lb/d	4,437 ug/L	5.33 lb/d +

⁴ 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	☐	☒	1	Grab	8270C-SIM	0.88 ug/L	140 ug/L	0.168 lb/day	140 ug/L	0.084 lb/day
i. Acenaphthylene	208968	☐	☒	1	Grab	8270C-SIM	0.92 ug/L	200 ug/L	0.24 lb/day	200 ug/L	0.12 lb/day
j. Anthracene	120127	☐	☒	1	Grab	8270C-SIM	0.98 ug/L	30 ug/L	0.036 lb/day	30 ug/L	0.018 lb/day
k. Benzo(ghi) Perylene	191242	☒	☐	1	Grab	8270C-SIM	0.98 ug/L	ND	NA	ND	NA
l. Fluoranthene	206440	☐	☒	1	Grab	8270C-SIM	0.80 ug/L	16 ug/L	0.019 lb/day	16 ug/L	0.009 lb/day
m. Fluorene	86737	☐	☒	1	Grab	8270C-SIM	0.98 ug/L	140 ug/L	0.168 lb/day	140 ug/L	0.084 lb/day
n. Naphthalene	91203	☐	☒	1	Grab	8270C-SIM	1.0 ug/L	3,800 ug/L	4.56 lb/day	3,800 ug/L	2.28 lb/day
o. Phenanthrene	85018	☐	☒	1	Grab	8270C-SIM	0.62 ug/L	100 ug/L	0.12 lb/day	100 ug/L	0.06 lb/day
p. Pyrene	129000	☐	☒	1	Grab	8270C-SIM	0.92 ug/L	11 ug/L	0.013 lb/day	11 ug/L	0.007 lb/day
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☐	☒	1	Grab	8082	0.250	ND	NA	ND	NA
38. Chloride	16887006	☐	☒	1	Grab	300.0	70 ug/L	21,000 ug/L	25.2 ug/L	21,000 ug/L	12.6 ug/L
39. Antimony	7440360	☐	☒	1	Grab	6020A	0.5 ug/L	1.3 ug/L	0.0016 lb/day	1.3 ug/L	0.0008 lb/d
40. Arsenic	7440382	☐	☒	1	Grab	6020A	0.5 ug/L	6.7 ug/L	0.008 lb/day	6.7 ug/L	0.004 lb/day
41. Cadmium	7440439	☒	☐	1	Grab	6020A	0.5 ug/L	ND	NA	ND	NA
42. Chromium III (trivalent)	16065831	☐	☒	1	Grab	6020A	0.5 ug/L	2.1 ug/L	0.003 lb/d ₊	2.1 ug/L	0.0015 lb ₊
43. Chromium VI (hexavalent)	18540299	☐	☒	1	Grab	3500CR-D	1.0 ug/L	4.0 ug/L	0.005 lb/d ₊	4.0 ug/L	0.0025 lb ₊
44. Copper	7440508	☐	☒	1	Grab	6020A	0.5 ug/L	0.9 ug/L	0.001 lb/day	0.9 ug/L	0.0005 lb/d
45. Lead	7439921	☐	☒	1	Grab	6020A	0.5 ug/L	12.1 ug/L	0.015 lb/day	12.1 ug/L	0.007 lb/day
46. Mercury	7439976	☒	☐	1	Grab	7470A	0.2 ug/L	ND	NA	ND	NA
47. Nickel	7440020	☐	☒	1	Grab	6020A	0.5 ug/L	11.0 ug/L	0.013 lb/day	11.0 ug/L	0.0065 lb ₊
48. Selenium	7782492	☒	☐	1	Grab	6020A	1.0 ug/L	ND	NA	ND	NA
49. Silver	7440224	☒	☐	1	Grab	6020A	0.5 ug/L	ND	NA	ND	NA
50. Zinc	7440666	☐	☒	1	Grab	6020A	5.0 ug/L	1,140 ug/L	1.37 lb/day	1,140 ug/L	0.68 lb/day
51. Iron	7439896	☐	☒	1	Grab	6010B	20 ug/L	36,000 ug/L	43.2 lb/day	36,000 ug/L	21.6 lb/day
Other (describe):		☐	☐								

<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>
		☐	☐								
		☐	☐								

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

<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 ☒ N ☐	If yes, which metals? Lead, Nickel, Zinc, Iron										
<i>Step 2:</i> For any metals which exceed the Appendix III limits, calculate the dilution factor (DF) 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? <table border="1"> <tr> <td>Metal: Lead</td> <td>DF: 0</td> </tr> <tr> <td>Metal: Nickel</td> <td>DF: 0</td> </tr> <tr> <td>Metal: Zinc</td> <td>DF: 0</td> </tr> <tr> <td>Metal: Iron</td> <td>DF: 0</td> </tr> <tr> <td>Etc.</td> <td></td> </tr> </table>	Metal: Lead	DF: 0	Metal: Nickel	DF: 0	Metal: Zinc	DF: 0	Metal: Iron	DF: 0	Etc.		Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☐ N ☒ If Y, list which metals:
Metal: Lead	DF: 0										
Metal: Nickel	DF: 0										
Metal: Zinc	DF: 0										
Metal: Iron	DF: 0										
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:

The treatment system will be a 100 gallon per minute pump and treatment system that will include one or more fractionization (frac) tanks to store influent water and allow for particulate settling. From the fractionization (frac) tank(s), the groundwater will be pumped through particulate filter bags and then through granulated activated carbon (GAC) vessels to treat the groundwater to effluent discharge standards.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
	Chlorination ☐	De-chlorination ☐	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):

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 ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):
------------------------------------	--	--	---	-----------------------------------	---

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

Treated groundwater will be pumped into roadside catch basins and discharged into the Chelsea River.

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

1. For multiple discharges, number the discharges sequentially.

2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water

The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

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

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water cfs

Please attach any calculation sheets used to support stream flow and dilution calculations.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y ☒ N ☐ If yes, for which pollutant(s)? Turbidity, Oil and Grease, Priority Organics, Unionized Ammonia, Low DO, Pathogens, Taste, odor and color

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 ☐

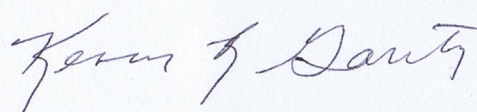
f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

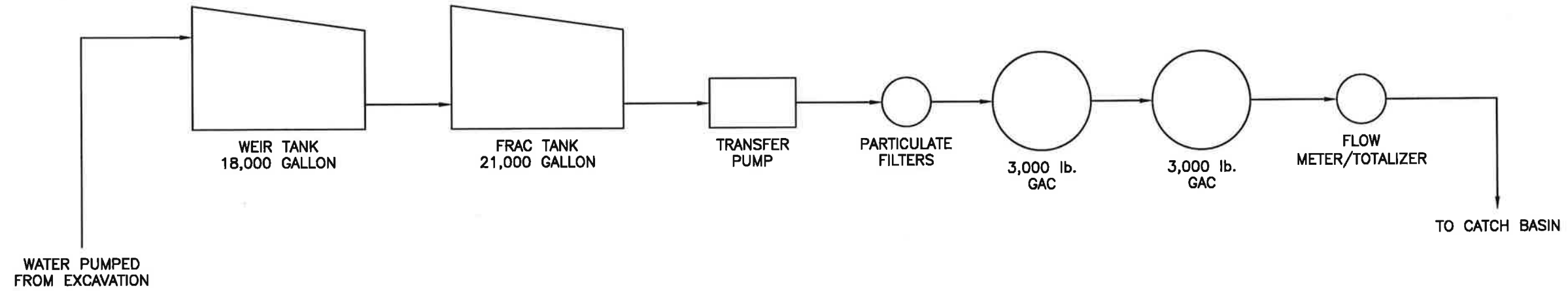
7. Supplemental information.

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

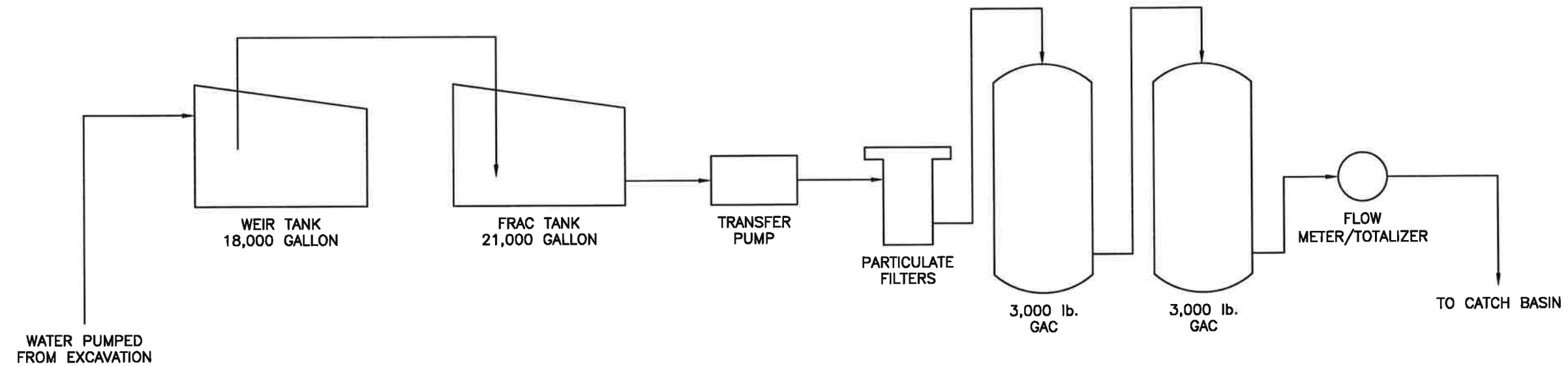
8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

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:	CHELSEA RIVER SUBMARINE CABLE - 260 MARGINAL ST CHELSEA, MA
Operator signature:	
Printed Name & Title:	KEVIN R GARITY, PROJECT MANAGER, MCCOY CONSTRUCTION COMPANY
Date:	03/22/11



**PROCESS FLOW DIAGRAM
100 GALLON PER MINUTE
DEWATERING TREATMENT SYSTEM**
N.T.S.



NOTE:

THIS PROCESS FLOW DIAGRAM IS INTENDED TO SHOW A SCHEMATIC LAYOUT OF THE PROPOSED GAC SYSTEM ONLY. ALL HOSES, COUPLINGS, CONNECTIONS, VALVES, FITTINGS, PUMPS AND NECESSARY SAFETY MECHANISMS SHOULD BE PROPERLY SIZED, INSTALLED AND MAINTAINED BY THE CONTRACTOR.

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEDENVIRONMENTAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

NO.	ISSUE/DESCRIPTION	BY	DATE
CHELSEA RIVER SUBMARINE CONDUIT INSTALLATION PROJECT BOSTON/CHELSEA, MASSACHUSETTS			
PROCESS FLOW DIAGRAM 100 GALLON PER MINUTE			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists 1 EDGEWATER DRIVE NORWOOD, MASSACHUSETTS 02062 (781) 276-5700		PREPARED FOR: NSTAR	
PROJ. MGR: RFM DESIGNED BY: SMO DATE: 03-10-11	REVIEWED BY: RFM DRAWN BY: JAH PROJECT NO.: 02.0170842.00	CHECKED BY: SMO SCALE: NOT TO SCALE REVISION NO.: 0	FIGURE 1 SHEET NO. 1 OF 1

FILE: T:\E_CAD\112558\CHELSEA STORM DRAIN LOCs_recover.dwg





Streamstats Ungaged Site Report

Date: Wed Mar 9 2011 13:34:02 Mountain Standard Time

Site Location: Massachusetts

NAD27 Latitude: 42.3854 (42 23 08)

NAD27 Longitude: -71.0352 (-71 02 07)

NAD83 Latitude: 42.3855 (42 23 08)

NAD83 Longitude: -71.0347 (-71 02 05)

Drainage Area: 2.76 mi2

Warning from delineation: Warning! Outside the hydrologic region (Massachusetts) defined by the study. Accuracy of regression equations is unknown.

Low Flows Basin Characteristics			
100 % Statewide Low Flow (2.76 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.76	1.61	149
Mean Basin Slope from 250K DEM (percent)	2.84	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.27	0	1.29
Massachusetts Region (dimensionless)	1	0	1

Probability of Perennial Flow Basin Characteristics			
100 % Perennial Flow Probability (2.76 mi2)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	2.76 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	36.01	0	100
Percent Forest (percent)	0.53	0	100
Massachusetts Region (dimensionless)	1	0	1

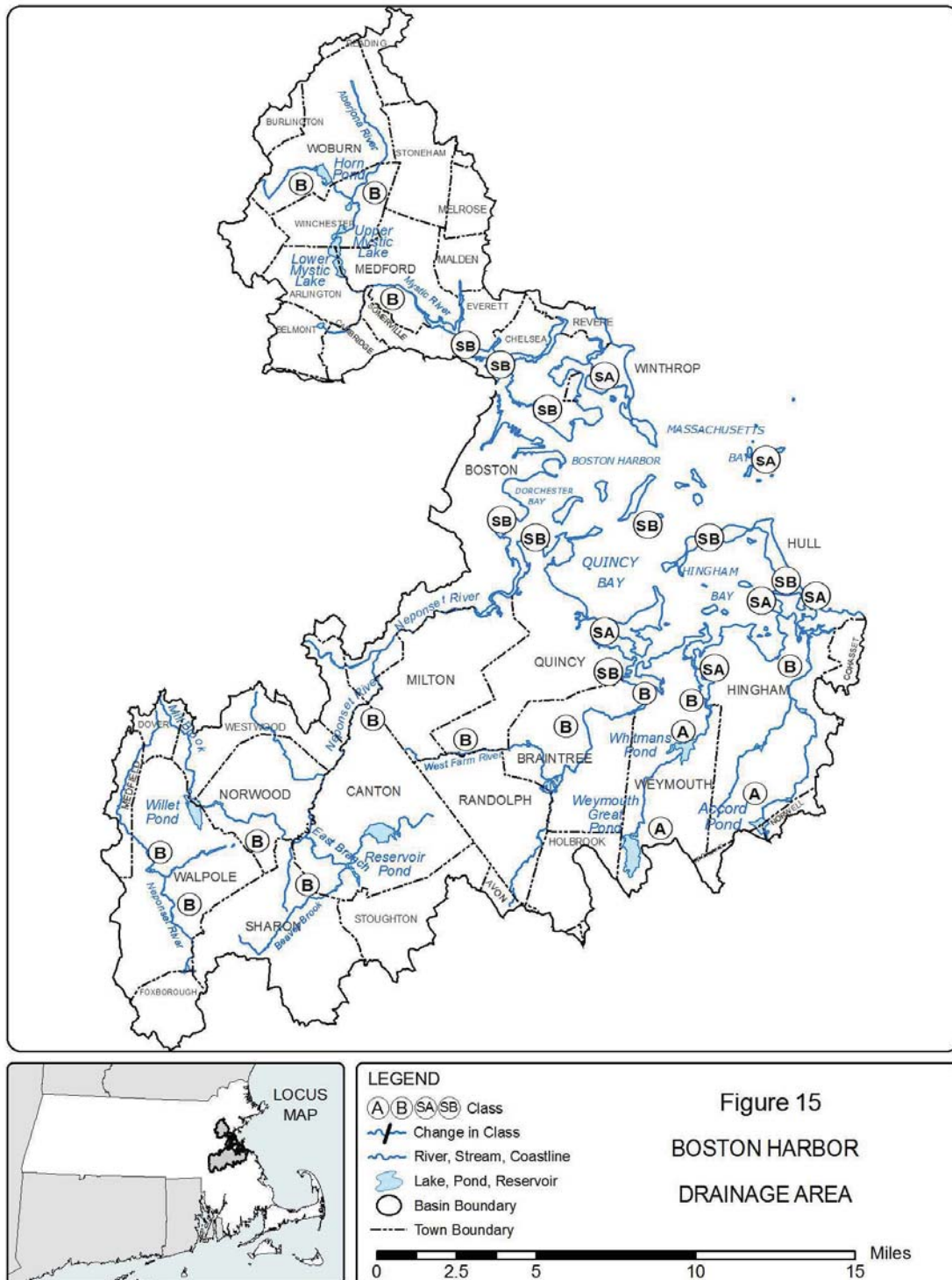
Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Low Flows Streamflow Statistics					
Statistic	Flow (ft ³ /s)	Prediction Error (percent)	Equivalent years of record	90-Percent Prediction Interval	
				Minimum	Maximum
D50	2.69	18		1.14	6.3
D60	1.96	20		0.76	5.04
D70	1.67	24		0.51	5.35
D75	1.43	26		0.45	4.45
D80	1.27	28		0.42	3.81
D85	0.98	32		0.31	3.07
D90	0.81	37		0.25	2.55
D95	0.49	46		0.14	1.74
D98	0.36	60		0.0855	1.4
D99	0.26	65		0.0598	1.09
M7D2Y	0.49	49		0.13	1.8
AUGD50	1.11	33		0.33	3.71
M7D10Y	0.25	71		0.053	1.12

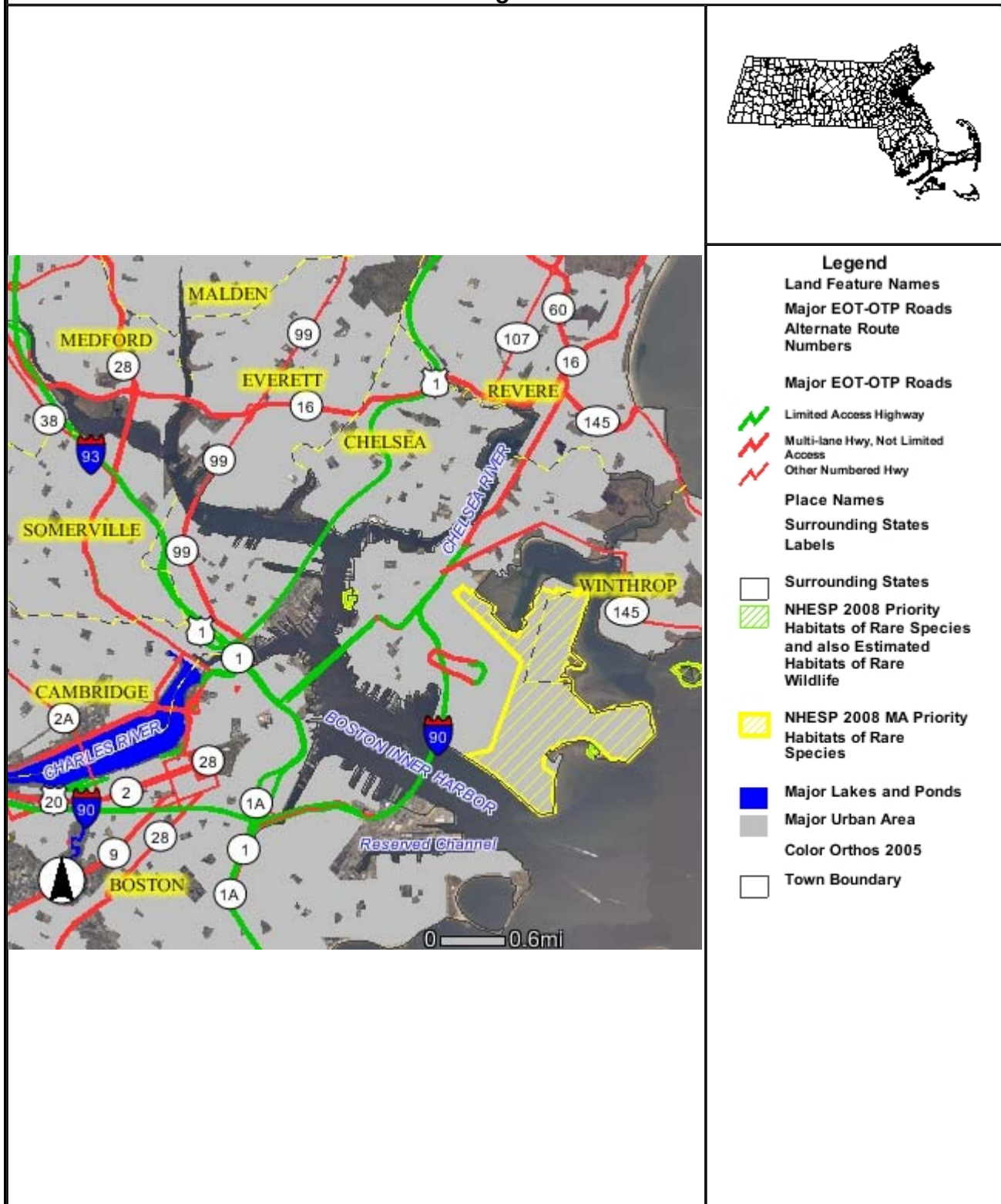
The equation for estimating the probability of perennial flow is applicable for most areas of Massachusetts except eastern Buzzards Bay, Cape Cod, and the Island regions. The estimate obtained from the equation assumes natural flow conditions at the site. The equation also is best used for sites with drainage areas between 0.01 to 1.99 mi2, as errors beyond for basins beyond these bounds are unknown.

Probability of Perennial Flow Statistics		
Statistic	Value	Standard Error (percent)
PROBPEREN	0.99	

4.06: continued



2008 Priority Habitat and Estimated Habitat Natural Heritage & Endangered Species Program





ANALYTICAL REPORT

Lab Number:	L1102207
Client:	TRC Environmental Consultants Wannalancit Mills 650 Suffolk Street Lowell, MA 01854
ATTN:	Dorothy McGlincy
Phone:	(978) 656-3659
Project Name:	CHELSEA RIVER CROSSING
Project Number:	112558
Report Date:	02/23/11

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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.

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



Project Name: CHELSEA RIVER CROSSING
Project Number: 112558

Lab Number: L1102207
Report Date: 02/23/11

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1102207-01	NC-2	CHELSEA, MA	02/17/11 12:25
L1102207-02	TRIP BLANK	CHELSEA, MA	02/17/11 00:00

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

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.

An affirmative response to questions A through F is required for "Presumptive Certainty" status		
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?	NO
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).	YES
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
A response to questions G, H and I is required for "Presumptive Certainty" status		
G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	NO
H	Were all QC performance standards specified in the CAM protocol(s) achieved?	NO
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	NO
For any questions answered "No", please refer to the case narrative section on the following page(s).		

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



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Lab Number: L1102207
Report Date: 02/23/11

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.

Report Submission

This report replaces the report issued February 21, 2011. All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

MCP Related Narratives

Sample Receipt

The sample was received above the appropriate pH for the Total and Dissolved Metals analyses. The laboratory added additional HNO₃ to a pH <2.

The sample was Field Filtered for Dissolved Metals only.

Volatile Organics

L1102207-01 has elevated detection limits due to the dilution required by the elevated concentrations of target

Project Name: CHELSEA RIVER CROSSING
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Case Narrative (continued)

compounds in the sample.

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

In reference to question G:

The target analytes did not achieve the requested CAM reporting limits.

In reference to question I:

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

Semivolatile Organics by SIM

L1102207-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

L1102207-01 was re-analyzed on dilution in order to quantitate the sample within the calibration range. The result should be considered estimated, and is qualified with an E flag, for any compound that exceeded the calibration on the initial analysis. The re-analysis was performed only for the compound that exceeded the calibration range.

In reference to question G:

The following target analytes did not achieve the requested CAM reporting limits: 2-Chloronaphthalene, Hexachlorobutadiene, Benzo(k)fluoranthene, Chrysene, Benzo(ghi)perylene, Dibenzo(a,h)anthracene, Indeno(1,2,3-cd)Pyrene, Pentachlorophenol, Hexachlorobenzene and Hexachloroethane.

In reference to question H:

The surrogate recoveries for L1102207-01 are below the 15-110% acceptance criteria for 2-Fluorophenol, Phenol-d6 and 2,4,6-Tribromophenol (all at 0%), and the 30-130% acceptance criteria for Nitrobenzene-d5, 2-Fluorobiphenyl and 4-Terphenyl-d14 (all at 0%), due to the dilution required to quantitate the sample. Re-extraction is not required; therefore, the results of the original analysis are reported.

Semivolatile Organics

L1102207-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

Project Name: CHELSEA RIVER CROSSING
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Case Narrative (continued)

In reference to question G:

The following target analytes did not achieve the requested CAM reporting limits: 1,2,4-Trichlorobenzene, Bis(2-chloroethyl)ether, 1,2-Dichlorobenzene, 1,3-Dichlorobenzene, 1,4-Dichlorobenzene, 3,3'-Dichlorobenzidine, 2,4-Dinitrotoluene, 2,6-Dinitrotoluene, Azobenzene, 4-Bromophenyl phenyl ether, Bis(2-chloroisopropyl)ether, Bis(2-chloroethoxy)methane, Isophorone, Nitrobenzene, Bis(2-Ethylhexyl)phthalate, Butyl benzyl phthalate, Di-n-butylphthalate, Di-n-octylphthalate, Diethyl phthalate, Dimethyl phthalate, Aniline, 4-Chloroaniline, Acetophenone, 2,4,6-Trichlorophenol, 2-Chlorophenol, 2,4-Dichlorophenol, 2-Nitrophenol, 4-Nitrophenol, 2,4-Dinitrophenol and 2,4,5-Trichlorophenol.

In reference to question H:

The WG455580-2/-3 LCS/LCSD RPD, associated with L1102207-01, is above the 20% acceptance criteria for 1,2,4-Trichlorobenzene (21%); however, the individual LCS/LCSD recoveries are within method limits.

VPH

L1102207-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

L1102207-01: The following target analyte did not achieve the requested CAM reporting limits: C9-C12 Aliphatics, Adjusted.

In reference to question I:

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

EPH

L1102207-01 has elevated detection limits due to the dilution required by the elevated concentrations of target compounds in the sample.

In reference to question G:

The following target analytes did not achieve the requested CAM reporting limits: C9-C18 Aliphatics, C19-C36 Aliphatics and C11-C22 Aromatics, Adjusted.

Project Name: CHELSEA RIVER CROSSING
Project Number: 112558

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Case Narrative (continued)

In reference to question H:

The surrogate recoveries for L1102207-01 are below the 40-140% acceptance criteria for Chloro-Octadecane and o-Terphenyl (both at 0%) due to the dilution required to quantitate the sample. Re-extraction is not required; therefore, the results of the original analysis are reported.

Metals

In reference to question H:

The WG455550-4 MS recovery for Dissolved Iron (0%), performed on L1102207-01, is below the 75-125% acceptance criteria and does not apply because the sample concentration is greater than four times the spike amount added.

The WG455650-5 serial dilution test, associated with L1102207-01, had a %D above the 10% acceptance criteria for Total Barium (18%) and Zinc (26%).

The WG455651-5 serial dilution test, associated with L1102207-01, had a %D above the 10% acceptance criteria for Dissolved Barium (12%) and Zinc (17%).

Cyanide, Total

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

Chromium, Hexavalent

In reference to question B:

At the client's request, the analytical method specified in the CAM protocol was not followed.

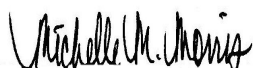
Non-MCP Related Narratives

Phenolics, Total

L1102207-01 has an elevated detection limit due to the dilution required by the sample matrix.

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: 02/23/11

ORGANICS

VOLATILES

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 02/18/11 08:47
Analyst: SH

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative
Extraction Date: 02/18/11 07:00

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Pesticides by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	0.003	1

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 5,624
Analytical Date: 02/18/11 09:17
Analyst: TT

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	100	13.	20
1,1-Dichloroethane	ND		ug/l	30	7.2	20
Chloroform	ND		ug/l	30	6.8	20
Carbon tetrachloride	ND		ug/l	20	7.7	20
1,2-Dichloropropane	ND		ug/l	70	6.4	20
Dibromochloromethane	ND		ug/l	20	7.5	20
1,1,2-Trichloroethane	22	J	ug/l	30	8.0	20
2-Chloroethylvinyl ether	ND		ug/l	200	12.	20
Tetrachloroethene	ND		ug/l	30	8.8	20
Chlorobenzene	ND		ug/l	70	7.5	20
Trichlorofluoromethane	ND		ug/l	100	7.4	20
1,2-Dichloroethane	ND		ug/l	30	8.3	20
1,1,1-Trichloroethane	ND		ug/l	40	6.1	20
Bromodichloromethane	ND		ug/l	20	7.0	20
trans-1,3-Dichloropropene	ND		ug/l	30	7.0	20
cis-1,3-Dichloropropene	ND		ug/l	30	7.0	20
Bromoform	ND		ug/l	20	6.7	20
1,1,2,2-Tetrachloroethane	ND		ug/l	20	8.1	20
Benzene	1200		ug/l	20	7.1	20
Toluene	1100		ug/l	20	10.	20
Ethylbenzene	300		ug/l	20	7.6	20
Chloromethane	ND		ug/l	200	18.	20
Bromomethane	ND		ug/l	100	26.	20
Vinyl chloride	ND		ug/l	40	7.1	20
Chloroethane	ND		ug/l	40	7.2	20
1,1-Dichloroethene	ND		ug/l	20	6.6	20
trans-1,2-Dichloroethene	ND		ug/l	30	7.9	20
cis-1,2-Dichloroethene	ND		ug/l	20	7.6	20
Trichloroethene	ND		ug/l	20	7.4	20
1,2-Dichlorobenzene	ND		ug/l	100	15.	20

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS****Lab ID:** L1102207-01 D**Date Collected:** 02/17/11 12:25**Client ID:** NC-2**Date Received:** 02/17/11**Sample Location:** CHELSEA, MA**Field Prep:** See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	100	18.	20
1,4-Dichlorobenzene	ND		ug/l	100	17.	20
p/m-Xylene	440		ug/l	40	15.	20
o-xylene	180		ug/l	20	6.9	20
Xylene (Total)	620		ug/l	40	13.	20
Styrene	53		ug/l	20	6.9	20
Acetone	ND		ug/l	200	36.	20
Carbon disulfide	ND		ug/l	100	18.	20
2-Butanone	ND		ug/l	200	44.	20
Vinyl acetate	ND		ug/l	400	58.	20
4-Methyl-2-pentanone	ND		ug/l	200	49.	20
2-Hexanone	ND		ug/l	200	50.	20
Acrolein	ND		ug/l	160	39.	20
Acrylonitrile	ND		ug/l	200	38.	20
Methyl tert butyl ether	ND		ug/l	400	12.	20
Dibromomethane	4.8	J	ug/l	20	3.5	20

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	93		80-120
Fluorobenzene	104		80-120
4-Bromofluorobenzene	103		80-120

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-02
Client ID: TRIP BLANK
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 5,624
Analytical Date: 02/18/11 07:43
Analyst: TT

Date Collected: 02/17/11 00:00
Date Received: 02/17/11
Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Methylene chloride	ND		ug/l	5.0	0.65	1
1,1-Dichloroethane	ND		ug/l	1.5	0.36	1
Chloroform	ND		ug/l	1.5	0.34	1
Carbon tetrachloride	ND		ug/l	1.0	0.38	1
1,2-Dichloropropane	ND		ug/l	3.5	0.32	1
Dibromochloromethane	ND		ug/l	1.0	0.37	1
1,1,2-Trichloroethane	ND		ug/l	1.5	0.40	1
2-Chloroethylvinyl ether	ND		ug/l	10	0.62	1
Tetrachloroethene	ND		ug/l	1.5	0.44	1
Chlorobenzene	ND		ug/l	3.5	0.38	1
Trichlorofluoromethane	ND		ug/l	5.0	0.37	1
1,2-Dichloroethane	ND		ug/l	1.5	0.42	1
1,1,1-Trichloroethane	ND		ug/l	2.0	0.30	1
Bromodichloromethane	ND		ug/l	1.0	0.35	1
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.35	1
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.35	1
Bromoform	ND		ug/l	1.0	0.34	1
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.41	1
Benzene	ND		ug/l	1.0	0.36	1
Toluene	ND		ug/l	1.0	0.51	1
Ethylbenzene	ND		ug/l	1.0	0.38	1
Chloromethane	ND		ug/l	10	0.89	1
Bromomethane	ND		ug/l	5.0	1.3	1
Vinyl chloride	ND		ug/l	2.0	0.35	1
Chloroethane	ND		ug/l	2.0	0.36	1
1,1-Dichloroethene	ND		ug/l	1.0	0.33	1
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.40	1
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.38	1
Trichloroethene	ND		ug/l	1.0	0.37	1
1,2-Dichlorobenzene	ND		ug/l	5.0	0.75	1

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-02
 Client ID: TRIP BLANK
 Sample Location: CHELSEA, MA

Date Collected: 02/17/11 00:00
 Date Received: 02/17/11
 Field Prep: None

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
1,3-Dichlorobenzene	ND		ug/l	5.0	0.93	1
1,4-Dichlorobenzene	ND		ug/l	5.0	0.85	1
p/m-Xylene	ND		ug/l	2.0	0.77	1
o-xylene	ND		ug/l	1.0	0.34	1
Xylene (Total)	ND		ug/l	2.0	0.63	1
Styrene	ND		ug/l	1.0	0.34	1
Acetone	ND		ug/l	10	1.8	1
Carbon disulfide	ND		ug/l	5.0	0.90	1
2-Butanone	ND		ug/l	10	2.2	1
Vinyl acetate	ND		ug/l	20	2.9	1
4-Methyl-2-pentanone	ND		ug/l	10	2.4	1
2-Hexanone	ND		ug/l	10	2.5	1
Acrolein	ND		ug/l	8.0	1.9	1
Acrylonitrile	ND		ug/l	10	1.9	1
Dibromomethane	ND		ug/l	1.0	0.18	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	87		80-120
Fluorobenzene	96		80-120
4-Bromofluorobenzene	114		80-120

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 5,624

Analytical Date: 02/18/11 07:08

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG455308-8					
Methylene chloride	ND		ug/l	5.0	0.65
1,1-Dichloroethane	ND		ug/l	1.5	0.36
Chloroform	ND		ug/l	1.5	0.34
Carbon tetrachloride	ND		ug/l	1.0	0.38
1,2-Dichloropropane	ND		ug/l	3.5	0.32
Dibromochloromethane	ND		ug/l	1.0	0.37
1,1,2-Trichloroethane	ND		ug/l	1.5	0.40
2-Chloroethylvinyl ether	ND		ug/l	10	0.62
Tetrachloroethene	ND		ug/l	1.5	0.44
Chlorobenzene	ND		ug/l	3.5	0.38
Trichlorofluoromethane	ND		ug/l	5.0	0.37
1,2-Dichloroethane	ND		ug/l	1.5	0.42
1,1,1-Trichloroethane	ND		ug/l	2.0	0.30
Bromodichloromethane	ND		ug/l	1.0	0.35
trans-1,3-Dichloropropene	ND		ug/l	1.5	0.35
cis-1,3-Dichloropropene	ND		ug/l	1.5	0.35
Bromoform	ND		ug/l	1.0	0.34
1,1,2,2-Tetrachloroethane	ND		ug/l	1.0	0.41
Benzene	ND		ug/l	1.0	0.36
Toluene	ND		ug/l	1.0	0.51
Ethylbenzene	ND		ug/l	1.0	0.38
Chloromethane	ND		ug/l	10	0.89
Bromomethane	ND		ug/l	5.0	1.3
Vinyl chloride	ND		ug/l	2.0	0.35
Chloroethane	ND		ug/l	2.0	0.36
1,1-Dichloroethene	ND		ug/l	1.0	0.33
trans-1,2-Dichloroethene	ND		ug/l	1.5	0.40
cis-1,2-Dichloroethene	ND		ug/l	1.0	0.38
Trichloroethene	ND		ug/l	1.0	0.37
1,2-Dichlorobenzene	ND		ug/l	5.0	0.75
1,3-Dichlorobenzene	ND		ug/l	5.0	0.93

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 5,624

Analytical Date: 02/18/11 07:08

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01-02 Batch: WG455308-8					
1,4-Dichlorobenzene	ND		ug/l	5.0	0.85
p/m-Xylene	ND		ug/l	2.0	0.77
o-xylene	ND		ug/l	1.0	0.34
Xylene (Total)	ND		ug/l	2.0	0.63
Styrene	ND		ug/l	1.0	0.34
Acetone	ND		ug/l	10	1.8
Carbon disulfide	ND		ug/l	5.0	0.90
2-Butanone	ND		ug/l	10	2.2
Vinyl acetate	ND		ug/l	20	2.9
4-Methyl-2-pentanone	ND		ug/l	10	2.4
2-Hexanone	ND		ug/l	10	2.5
Acrolein	ND		ug/l	8.0	1.9
Acrylonitrile	ND		ug/l	10	1.9
Methyl tert butyl ether	ND		ug/l	20	0.58
Dibromomethane	ND		ug/l	1.0	0.18
1,4-Dioxane	ND		ug/l	2000	490
Tert-Butyl Alcohol	ND		ug/l	100	6.0
Tertiary-Amyl Methyl Ether	ND		ug/l	20	0.26

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	91		80-120
Fluorobenzene	98		80-120
4-Bromofluorobenzene	112		80-120

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**Method Blank Analysis**
Batch Quality Control

Analytical Method: 14,504.1

Analytical Date: 02/18/11 07:56

Analyst: SH

Extraction Date: 02/18/11 07:00

Parameter	Result	Qualifier	Units	RL	MDL
Pesticides by GC - Westborough Lab for sample(s): 01 Batch: WG455592-1					
1,2-Dibromoethane	ND		ug/l	0.010	0.003

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG455308-7								
Methylene chloride	89		-		1-221	-		30
1,1-Dichloroethane	111		-		59-155	-		30
Chloroform	106		-		51-138	-		30
Carbon tetrachloride	126		-		70-140	-		30
1,2-Dichloropropane	109		-		1-210	-		30
Dibromochloromethane	113		-		53-149	-		30
1,1,2-Trichloroethane	119		-		52-150	-		30
2-Chloroethylvinyl ether	103		-		1-305	-		30
Tetrachloroethene	131		-		64-148	-		30
Chlorobenzene	113		-		37-160	-		30
Trichlorofluoromethane	105		-		17-181	-		30
1,2-Dichloroethane	102		-		49-155	-		30
1,1,1-Trichloroethane	112		-		52-162	-		30
Bromodichloromethane	116		-		35-155	-		30
trans-1,3-Dichloropropene	105		-		17-183	-		30
cis-1,3-Dichloropropene	105		-		1-227	-		30
Bromoform	108		-		45-169	-		30
1,1,2,2-Tetrachloroethane	110		-		46-157	-		30
Benzene	111		-		37-151	-		30
Toluene	114		-		47-150	-		30
Ethylbenzene	120		-		37-162	-		30

Lab Control Sample Analysis Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG455308-7								
Chloromethane	169		-		1-273	-		30
Bromomethane	104		-		1-242	-		30
Vinyl chloride	79		-		1-251	-		30
Chloroethane	90		-		14-230	-		30
1,1-Dichloroethene	113		-		1-234	-		30
trans-1,2-Dichloroethene	126		-		54-156	-		30
cis-1,2-Dichloroethene	110		-		60-140	-		30
Trichloroethene	111		-		71-157	-		30
1,2-Dichlorobenzene	113		-		18-190	-		30
1,3-Dichlorobenzene	111		-		59-156	-		30
1,4-Dichlorobenzene	117		-		18-190	-		30
p/m-Xylene	117		-		40-160	-		30
o-Xylene	107		-		40-160	-		30
XYLENE (TOTAL)	114		-		40-160	-		30
Styrene	103		-		40-160	-		30
Acetone	72		-		40-160	-		30
Carbon disulfide	95		-		40-160	-		30
2-Butanone	87		-		40-160	-		30
Vinyl acetate	90		-		40-160	-		30
4-Methyl-2-pentanone	102		-		40-160	-		30
2-Hexanone	102		-		40-160	-		30

Lab Control Sample Analysis**Batch Quality Control****Project Name:** CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 Batch: WG455308-7								
Acrolein	63		-		40-160	-		30
Acrylonitrile	93		-		40-160	-		30
Dibromomethane	94		-		70-130	-		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Pentafluorobenzene	95				80-120
Fluorobenzene	97				80-120
4-Bromofluorobenzene	103				80-120

Pesticides by GC - Westborough Lab Associated sample(s): 01 Batch: WG455592-2 WG455592-3								
1,2-Dibromoethane	118		103		70-130	14		20
1,2-Dibromo-3-chloropropane	114		105		70-130	8		20

Matrix Spike Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

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): 01-02 QC Batch ID: WG455308-3 QC Sample: L1102077-01 Client ID: MS Sample												
Methylene chloride	ND	200	190	96		-	-		1-221	-		30
1,1-Dichloroethane	ND	200	240	118		-	-		59-155	-		30
Chloroform	ND	200	220	111		-	-		51-138	-		30
Carbon tetrachloride	ND	200	270	135		-	-		70-140	-		30
1,2-Dichloropropane	ND	200	230	115		-	-		1-210	-		30
Dibromochloromethane	ND	200	240	122		-	-		53-149	-		30
1,1,2-Trichloroethane	ND	200	250	125		-	-		52-150	-		30
2-Chloroethylvinyl ether	ND	200	190	95		-	-		1-305	-		30
Tetrachloroethene	ND	200	270	137		-	-		64-148	-		30
Chlorobenzene	ND	200	230	116		-	-		37-160	-		30
Trichlorofluoromethane	ND	200	220	111		-	-		17-181	-		30
1,2-Dichloroethane	ND	200	220	110		-	-		49-155	-		30
1,1,1-Trichloroethane	ND	200	240	118		-	-		52-162	-		30
Bromodichloromethane	ND	200	240	122		-	-		35-155	-		30
trans-1,3-Dichloropropene	ND	200	230	115		-	-		17-183	-		30
cis-1,3-Dichloropropene	ND	200	220	113		-	-		1-227	-		30
Bromoform	ND	200	230	115		-	-		45-169	-		30
1,1,2,2-Tetrachloroethane	ND	200	230	115		-	-		46-157	-		30
Benzene	ND	200	230	117		-	-		35-151	-		30
Toluene	ND	200	240	119		-	-		47-150	-		30
Ethylbenzene	ND	200	250	124		-	-		37-162	-		30

Matrix Spike Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

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): 01-02 QC Batch ID: WG455308-3 QC Sample: L1102077-01 Client ID: MS Sample												
Chloromethane	ND	200	340	169		-	-		1-273	-		30
Bromomethane	ND	200	220	108		-	-		1-242	-		30
Vinyl chloride	ND	200	170	85		-	-		1-251	-		30
Chloroethane	ND	200	190	97		-	-		14-230	-		30
1,1-Dichloroethene	ND	200	240	120		-	-		1-234	-		30
trans-1,2-Dichloroethene	ND	200	300	151		-	-		54-156	-		30
cis-1,2-Dichloroethene	ND	200	220	112		-	-		60-140	-		30
Trichloroethene	ND	200	240	118		-	-		71-157	-		30
1,2-Dichlorobenzene	ND	200	240	118		-	-		18-190	-		30
1,3-Dichlorobenzene	ND	200	230	115		-	-		59-156	-		30
1,4-Dichlorobenzene	ND	200	240	120		-	-		18-190	-		30
p/m-Xylene	ND	400	480	119		-	-		40-160	-		30
o-Xylene	ND	200	220	112		-	-		40-160	-		30
XYLENE (TOTAL)	ND	600	700	117		-	-		40-160	-		30
Styrene	ND	200	210	106		-	-		40-160	-		30
Acetone	ND	500	480	96		-	-		40-160	-		30
Carbon disulfide	ND	200	220	108		-	-		40-160	-		30
2-Butanone	ND	500	470	95		-	-		40-160	-		30
Vinyl acetate	ND	400	380	96		-	-		40-160	-		30
4-Methyl-2-pentanone	ND	500	540	108		-	-		40-160	-		30
2-Hexanone	ND	500	520	104		-	-		40-160	-		30

Matrix Spike Analysis Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

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): 01-02 QC Batch ID: WG455308-3 QC Sample: L1102077-01 Client ID: MS Sample

Acrolein	ND	400	280	70		-	-		40-160	-		30
Acrylonitrile	ND	400	350	89		-	-		40-160	-		30
Dibromomethane	ND	200	180	88		-	-			-		30

Surrogate	MS % Recovery	Qualifier	MSD % Recovery	Qualifier	Acceptance Criteria
4-Bromofluorobenzene	103				80-120
Fluorobenzene	99				80-120
Pentafluorobenzene	94				80-120

Pesticides by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455592-4 QC Sample: L1102207-01 Client ID: NC-2

1,2-Dibromoethane	ND	0.249	0.279	112		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.249	0.241	97		-	-		70-130	-		20

Lab Duplicate Analysis Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG455308-4 QC Sample: L1102077-01 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	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: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG455308-4 QC Sample: L1102077-01 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	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	ND	ND	ug/l	NC	30
o-xylene	ND	ND	ug/l	NC	30
Xylene (Total)	ND	ND	ug/l	NC	30
Styrene	ND	ND	ug/l	NC	30
Acetone	ND	ND	ug/l	NC	30
Carbon disulfide	ND	ND	ug/l	NC	30

Lab Duplicate Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01-02 QC Batch ID: WG455308-4 QC Sample: L1102077-01 Client ID: DUP Sample					
2-Butanone	ND	ND	ug/l	NC	30
Vinyl acetate	ND	ND	ug/l	NC	30
4-Methyl-2-pentanone	ND	ND	ug/l	NC	30
2-Hexanone	ND	ND	ug/l	NC	30
Acrolein	ND	ND	ug/l	NC	30
Acrylonitrile	ND	ND	ug/l	NC	30
Dibromomethane	ND	ND	ug/l	NC	30

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
Pentafluorobenzene	91		90		80-120
Fluorobenzene	101		97		80-120
4-Bromofluorobenzene	116		112		80-120

SEMIVOLATILES

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D2
 Client ID: NC-2
 Sample Location: CHELSEA, MA
 Matrix: Water
 Analytical Method: 97,8270C-SIM
 Analytical Date: 02/18/11 17:02
 Analyst: AS

Date Collected: 02/17/11 12:25
 Date Received: 02/17/11
 Field Prep: See Narrative
 Extraction Method: EPA 3510C
 Extraction Date: 02/18/11 00:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						
Naphthalene	6100		ug/l	80	20.	400
2-Methylnaphthalene	1100		ug/l	80	14.	400

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 97,8270C
Analytical Date: 02/18/11 20:13
Analyst: ND

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative
Extraction Method: EPA 3510C
Extraction Date: 02/18/11 00:50

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
1,2,4-Trichlorobenzene	ND		ug/l	25	9.6	5
Bis(2-chloroethyl)ether	ND		ug/l	25	7.6	5
1,2-Dichlorobenzene	ND		ug/l	25	9.4	5
1,3-Dichlorobenzene	ND		ug/l	25	8.6	5
1,4-Dichlorobenzene	ND		ug/l	25	7.8	5
3,3'-Dichlorobenzidine	ND		ug/l	50	24.	5
2,4-Dinitrotoluene	ND		ug/l	25	8.2	5
2,6-Dinitrotoluene	ND		ug/l	25	7.7	5
Azobenzene	ND		ug/l	25	7.5	5
4-Bromophenyl phenyl ether	ND		ug/l	25	7.7	5
Bis(2-chloroisopropyl)ether	ND		ug/l	25	8.3	5
Bis(2-chloroethoxy)methane	ND		ug/l	25	8.4	5
Isophorone	ND		ug/l	25	9.5	5
Nitrobenzene	ND		ug/l	25	8.2	5
Bis(2-Ethylhexyl)phthalate	ND		ug/l	25	9.6	5
Butyl benzyl phthalate	ND		ug/l	25	9.6	5
Di-n-butylphthalate	ND		ug/l	25	8.6	5
Di-n-octylphthalate	ND		ug/l	25	7.6	5
Diethyl phthalate	ND		ug/l	25	7.2	5
Dimethyl phthalate	ND		ug/l	25	8.0	5
Aniline	ND		ug/l	100	39.	5
4-Chloroaniline	ND		ug/l	25	8.2	5
Dibenzofuran	70		ug/l	25	7.4	5
Acetophenone	ND		ug/l	50	17.	5
2,4,6-Trichlorophenol	ND		ug/l	25	8.2	5
2-Chlorophenol	ND		ug/l	30	8.0	5
2,4-Dichlorophenol	ND		ug/l	50	8.0	5
2,4-Dimethylphenol	840		ug/l	25	6.9	5
2-Nitrophenol	ND		ug/l	100	8.7	5
4-Nitrophenol	ND		ug/l	50	10.	5

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D

Date Collected: 02/17/11 12:25

Client ID: NC-2

Date Received: 02/17/11

Sample Location: CHELSEA, MA

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics - Westborough Lab						
2,4-Dinitrophenol	ND		ug/l	150	50.	5
Phenol	250		ug/l	35	4.5	5
2-Methylphenol	390		ug/l	30	12.	5
3-Methylphenol/4-Methylphenol	920		ug/l	30	10.	5
2,4,5-Trichlorophenol	ND		ug/l	25	8.2	5

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	66		15-110
Phenol-d6	47		15-110
Nitrobenzene-d5	99		30-130
2-Fluorobiphenyl	95		30-130
2,4,6-Tribromophenol	109		15-110
4-Terphenyl-d14	106		30-130

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 97,8270C-SIM
Analytical Date: 02/18/11 13:37
Analyst: AS

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative
Extraction Method: EPA 3510C
Extraction Date: 02/18/11 00:47

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Semivolatile Organics by SIM - Westborough Lab						
Acenaphthene	140		ug/l	4.0	0.88	20
2-Chloronaphthalene	ND		ug/l	4.0	1.1	20
Fluoranthene	16		ug/l	4.0	0.80	20
Hexachlorobutadiene	ND		ug/l	10	1.1	20
Naphthalene	3800	E	ug/l	4.0	1.0	20
Benzo(a)anthracene	6.2		ug/l	4.0	0.76	20
Benzo(a)pyrene	6.5		ug/l	4.0	0.80	20
Benzo(b)fluoranthene	6.6		ug/l	4.0	1.0	20
Benzo(k)fluoranthene	1.3	J	ug/l	4.0	0.72	20
Chrysene	1.7	J	ug/l	4.0	0.68	20
Acenaphthylene	200		ug/l	4.0	0.92	20
Anthracene	30		ug/l	4.0	0.98	20
Benzo(ghi)perylene	ND		ug/l	4.0	0.98	20
Fluorene	140		ug/l	4.0	0.70	20
Phenanthrene	100		ug/l	4.0	0.62	20
Dibenzo(a,h)anthracene	ND		ug/l	4.0	1.1	20
Indeno(1,2,3-cd)Pyrene	ND		ug/l	4.0	0.68	20
Pyrene	11		ug/l	4.0	0.92	20
2-Methylnaphthalene	910	E	ug/l	4.0	0.72	20
Pentachlorophenol	ND		ug/l	16	3.7	20
Hexachlorobenzene	ND		ug/l	16	0.28	20
Hexachloroethane	ND		ug/l	16	1.1	20

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D

Date Collected: 02/17/11 12:25

Client ID: NC-2

Date Received: 02/17/11

Sample Location: CHELSEA, MA

Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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MCP Semivolatile Organics by SIM - Westborough Lab

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	0	Q	15-110
Phenol-d6	0	Q	15-110
Nitrobenzene-d5	0	Q	30-130
2-Fluorobiphenyl	0	Q	30-130
2,4,6-Tribromophenol	0	Q	15-110
4-Terphenyl-d14	0	Q	30-130

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8270C-SIM

Extraction Method: EPA 3510C

Analytical Date: 02/18/11 10:39

Extraction Date: 02/18/11 00:47

Analyst: AS

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG455579-1					
Acenaphthene	ND		ug/l	0.20	0.04
2-Chloronaphthalene	ND		ug/l	0.20	0.05
Fluoranthene	ND		ug/l	0.20	0.04
Hexachlorobutadiene	ND		ug/l	0.50	0.05
Naphthalene	ND		ug/l	0.20	0.05
Benzo(a)anthracene	ND		ug/l	0.20	0.04
Benzo(a)pyrene	ND		ug/l	0.20	0.04
Benzo(b)fluoranthene	ND		ug/l	0.20	0.05
Benzo(k)fluoranthene	ND		ug/l	0.20	0.04
Chrysene	ND		ug/l	0.20	0.03
Acenaphthylene	ND		ug/l	0.20	0.05
Anthracene	ND		ug/l	0.20	0.05
Benzo(ghi)perylene	ND		ug/l	0.20	0.05
Fluorene	ND		ug/l	0.20	0.04
Phenanthrene	ND		ug/l	0.20	0.03
Dibenzo(a,h)anthracene	ND		ug/l	0.20	0.05
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	0.03
Pyrene	ND		ug/l	0.20	0.05
2-Methylnaphthalene	ND		ug/l	0.20	0.04
Pentachlorophenol	ND		ug/l	0.80	0.19
Hexachlorobenzene	ND		ug/l	0.80	0.01
Hexachloroethane	ND		ug/l	0.80	0.06

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**Method Blank Analysis**
Batch Quality Control

Analytical Method: 97,8270C-SIM

Analytical Date: 02/18/11 10:39

Analyst: AS

Extraction Method: EPA 3510C

Extraction Date: 02/18/11 00:47

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics by SIM - Westborough Lab for sample(s): 01 Batch: WG455579-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	53		15-110
Phenol-d6	42		15-110
Nitrobenzene-d5	90		30-130
2-Fluorobiphenyl	74		30-130
2,4,6-Tribromophenol	93		15-110
4-Terphenyl-d14	76		30-130

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8270C
 Analytical Date: 02/18/11 16:07
 Analyst: ND

Extraction Method: EPA 3510C
 Extraction Date: 02/18/11 00:50

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG455580-1					
Acenaphthene	ND		ug/l	5.0	1.4
1,2,4-Trichlorobenzene	ND		ug/l	5.0	1.9
Hexachlorobenzene	ND		ug/l	5.0	1.6
Bis(2-chloroethyl)ether	ND		ug/l	5.0	1.5
2-Chloronaphthalene	ND		ug/l	5.0	1.6
1,2-Dichlorobenzene	ND		ug/l	5.0	1.9
1,3-Dichlorobenzene	ND		ug/l	5.0	1.7
1,4-Dichlorobenzene	ND		ug/l	5.0	1.6
3,3'-Dichlorobenzidine	ND		ug/l	10	4.8
2,4-Dinitrotoluene	ND		ug/l	5.0	1.6
2,6-Dinitrotoluene	ND		ug/l	5.0	1.5
Azobenzene	ND		ug/l	5.0	1.5
Fluoranthene	ND		ug/l	5.0	1.8
4-Bromophenyl phenyl ether	ND		ug/l	5.0	1.5
Bis(2-chloroisopropyl)ether	ND		ug/l	5.0	1.7
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	1.7
Hexachlorobutadiene	ND		ug/l	10	2.1
Hexachloroethane	ND		ug/l	5.0	1.9
Isophorone	ND		ug/l	5.0	1.9
Naphthalene	ND		ug/l	5.0	1.6
Nitrobenzene	ND		ug/l	5.0	1.6
Bis(2-Ethylhexyl)phthalate	ND		ug/l	5.0	1.9
Butyl benzyl phthalate	ND		ug/l	5.0	1.9
Di-n-butylphthalate	ND		ug/l	5.0	1.7
Di-n-octylphthalate	ND		ug/l	5.0	1.5
Diethyl phthalate	ND		ug/l	5.0	1.4
Dimethyl phthalate	ND		ug/l	5.0	1.6
Benzo(a)anthracene	ND		ug/l	5.0	1.7
Benzo(a)pyrene	ND		ug/l	5.0	1.7
Benzo(b)fluoranthene	ND		ug/l	5.0	1.9
Benzo(k)fluoranthene	ND		ug/l	5.0	1.6

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8270C
 Analytical Date: 02/18/11 16:07
 Analyst: ND

Extraction Method: EPA 3510C
 Extraction Date: 02/18/11 00:50

Parameter	Result	Qualifier	Units	RL	MDL
MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG455580-1					
Chrysene	ND		ug/l	5.0	1.9
Acenaphthylene	ND		ug/l	5.0	1.5
Anthracene	ND		ug/l	5.0	1.6
Benzo(ghi)perylene	ND		ug/l	5.0	1.8
Fluorene	ND		ug/l	5.0	1.7
Phenanthrene	ND		ug/l	5.0	1.6
Dibenzo(a,h)anthracene	ND		ug/l	5.0	2.0
Indeno(1,2,3-cd)Pyrene	ND		ug/l	5.0	1.9
Pyrene	ND		ug/l	5.0	1.8
Aniline	ND		ug/l	20	7.7
4-Chloroaniline	ND		ug/l	5.0	1.6
Dibenzofuran	ND		ug/l	5.0	1.5
2-Methylnaphthalene	ND		ug/l	5.0	2.0
Acetophenone	ND		ug/l	10	3.4
2,4,6-Trichlorophenol	ND		ug/l	5.0	1.6
2-Chlorophenol	ND		ug/l	6.0	1.6
2,4-Dichlorophenol	ND		ug/l	10	1.6
2,4-Dimethylphenol	ND		ug/l	5.0	1.4
2-Nitrophenol	ND		ug/l	20	1.7
4-Nitrophenol	ND		ug/l	10	2.0
2,4-Dinitrophenol	ND		ug/l	30	10.
Pentachlorophenol	ND		ug/l	10	4.9
Phenol	ND		ug/l	7.0	0.90
2-Methylphenol	ND		ug/l	6.0	2.4
3-Methylphenol/4-Methylphenol	ND		ug/l	6.0	2.0
2,4,5-Trichlorophenol	ND		ug/l	5.0	1.6

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 97,8270C
 Analytical Date: 02/18/11 16:07
 Analyst: ND

Extraction Method: EPA 3510C
 Extraction Date: 02/18/11 00:50

Parameter	Result	Qualifier	Units	RL	MDL
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MCP Semivolatile Organics - Westborough Lab for sample(s): 01 Batch: WG455580-1

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	55		15-110
Phenol-d6	38		15-110
Nitrobenzene-d5	86		30-130
2-Fluorobiphenyl	79		30-130
2,4,6-Tribromophenol	90		15-110
4-Terphenyl-d14	104		30-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG455579-2 WG455579-3								
Acenaphthene	79		73		40-140	8		20
2-Chloronaphthalene	121		103		40-140	16		20
Fluoranthene	98		92		40-140	6		20
Hexachlorobutadiene	85		80		40-140	6		20
Naphthalene	83		77		40-140	8		20
Benzo(a)anthracene	109		105		40-140	4		20
Benzo(a)pyrene	86		85		40-140	1		20
Benzo(b)fluoranthene	108		107		40-140	1		20
Benzo(k)fluoranthene	99		95		40-140	4		20
Chrysene	93		90		40-140	3		20
Acenaphthylene	102		94		40-140	8		20
Anthracene	85		76		40-140	11		20
Benzo(ghi)perylene	96		94		40-140	2		20
Fluorene	81		80		40-140	1		20
Phenanthrene	76		65		40-140	16		20
Dibenzo(a,h)anthracene	104		102		40-140	2		20
Indeno(1,2,3-cd)Pyrene	100		96		40-140	4		20
Pyrene	94		87		40-140	8		20
2-Methylnaphthalene	89		80		40-140	11		20
Pentachlorophenol	102		91		30-130	11		20
Hexachlorobenzene	66		54		40-140	20		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics by SIM - Westborough Lab Associated sample(s): 01 Batch: WG455579-2 WG455579-3								
Hexachloroethane	85		81		40-140	5		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	81		74		15-110
Phenol-d6	68		65		15-110
Nitrobenzene-d5	98		93		30-130
2-Fluorobiphenyl	87		84		30-130
2,4,6-Tribromophenol	99		92		15-110
4-Terphenyl-d14	88		84		30-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG455580-2 WG455580-3								
Acenaphthene	84		83		40-140	1		20
1,2,4-Trichlorobenzene	74		60		40-140	21	Q	20
Hexachlorobenzene	92		90		40-140	2		20
Bis(2-chloroethyl)ether	84		81		40-140	4		20
2-Chloronaphthalene	101		87		40-140	15		20
1,2-Dichlorobenzene	81		67		40-140	19		20
1,3-Dichlorobenzene	78		66		40-140	17		20
1,4-Dichlorobenzene	78		66		40-140	17		20
3,3'-Dichlorobenzidine	76		93		40-140	20		20
2,4-Dinitrotoluene	100		99		40-140	1		20
2,6-Dinitrotoluene	98		95		40-140	3		20
Azobenzene	94		90		40-140	4		20
Fluoranthene	102		99		40-140	3		20
4-Bromophenyl phenyl ether	91		92		40-140	1		20
Bis(2-chloroisopropyl)ether	106		94		40-140	12		20
Bis(2-chloroethoxy)methane	100		84		40-140	17		20
Hexachlorobutadiene	75		64		40-140	16		20
Hexachloroethane	72		63		40-140	13		20
Isophorone	95		89		40-140	7		20
Naphthalene	84		74		40-140	13		20
Nitrobenzene	94		83		40-140	12		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG455580-2 WG455580-3								
Bis(2-Ethylhexyl)phthalate	113		113		40-140	0		20
Butyl benzyl phthalate	108		107		40-140	1		20
Di-n-butylphthalate	107		104		40-140	3		20
Di-n-octylphthalate	105		105		40-140	0		20
Diethyl phthalate	92		99		40-140	7		20
Dimethyl phthalate	96		95		40-140	1		20
Benzo(a)anthracene	100		100		40-140	0		20
Benzo(a)pyrene	89		93		40-140	4		20
Benzo(b)fluoranthene	104		105		40-140	1		20
Benzo(k)fluoranthene	107		108		40-140	1		20
Chrysene	98		96		40-140	2		20
Acenaphthylene	92		86		40-140	7		20
Anthracene	95		95		40-140	0		20
Benzo(ghi)perylene	102		102		40-140	0		20
Fluorene	88		88		40-140	0		20
Phenanthrene	100		90		40-140	11		20
Dibenzo(a,h)anthracene	105		106		40-140	1		20
Indeno(1,2,3-cd)Pyrene	99		101		40-140	2		20
Pyrene	98		101		40-140	3		20
Aniline	62		63		40-140	2		20
4-Chloroaniline	78		89		40-140	13		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG455580-2 WG455580-3								
Dibenzofuran	89		88		40-140	1		20
2-Methylnaphthalene	88		78		40-140	12		20
Acetophenone	98		96		40-140	2		20
2,4,6-Trichlorophenol	100		94		30-130	6		20
2-Chlorophenol	92		83		30-130	10		20
2,4-Dichlorophenol	103		91		30-130	12		20
2,4-Dimethylphenol	104		94		30-130	10		20
2-Nitrophenol	106		89		30-130	17		20
4-Nitrophenol	47		51		30-130	8		20
2,4-Dinitrophenol	81		84		30-130	4		20
Pentachlorophenol	85		86		30-130	1		20
Phenol	49		47		30-130	4		20
2-Methylphenol	99		86		30-130	14		20
3-Methylphenol/4-Methylphenol	83		71		30-130	16		20
2,4,5-Trichlorophenol	100		94		30-130	6		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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MCP Semivolatile Organics - Westborough Lab Associated sample(s): 01 Batch: WG455580-2 WG455580-3

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	61		57		15-110
Phenol-d6	47		44		15-110
Nitrobenzene-d5	96		86		30-130
2-Fluorobiphenyl	87		78		30-130
2,4,6-Tribromophenol	105		106		15-110
4-Terphenyl-d14	106		109		30-130

PETROLEUM HYDROCARBONS

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 100, VPH-04-1.1
Analytical Date: 02/19/11 01:48
Analyst: TT

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative

Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved
Container

Sample Temperature upon receipt:

Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Petroleum Hydrocarbons - Westborough Lab

C5-C8 Aliphatics	4650		ug/l	2500	2500	50
C9-C12 Aliphatics	6160		ug/l	2500	2500	50
C9-C10 Aromatics	3570		ug/l	2500	2500	50
C5-C8 Aliphatics, Adjusted	2830		ug/l	2500	2500	50
C9-C12 Aliphatics, Adjusted	ND		ug/l	2500	2500	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	90		70-130
2,5-Dibromotoluene-FID	113		70-130

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01 D
 Client ID: NC-2
 Sample Location: CHELSEA, MA
 Matrix: Water
 Analytical Method: 98,EPH-04-1.1
 Analytical Date: 02/21/11 09:57
 Analyst: MW

Date Collected: 02/17/11 12:25
 Date Received: 02/17/11
 Field Prep: See Narrative
 Extraction Method: EPA 3510C
 Extraction Date: 02/18/11 00:43
 Cleanup Method1: EPH-04-1
 Cleanup Date1: 02/19/11

Quality Control Information

Condition of sample received: Satisfactory
 Aqueous Preservative: Laboratory Provided Preserved Container
 Sample Temperature upon receipt: Received on Ice
 Sample Extraction method: Extracted Per the Method

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Extractable Petroleum Hydrocarbons - Westborough Lab						
C9-C18 Aliphatics	ND		ug/l	5000	5000	50
C19-C36 Aliphatics	ND		ug/l	5000	5000	50
C11-C22 Aromatics	9690		ug/l	5000	5000	50
C11-C22 Aromatics, Adjusted	ND		ug/l	5000	5000	50

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	0		40-140
o-Terphenyl	0		40-140
2-Fluorobiphenyl	72		40-140
2-Bromonaphthalene	79		40-140

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-02
Client ID: TRIP BLANK
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 100, VPH-04-1.1
Analytical Date: 02/18/11 19:01
Analyst: TT

Date Collected: 02/17/11 00:00
Date Received: 02/17/11
Field Prep: None

Quality Control Information

Condition of sample received:

Satisfactory

Aqueous Preservative:

Laboratory Provided Preserved
Container

Sample Temperature upon receipt:

Received on Ice

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
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Volatile Petroleum Hydrocarbons - Westborough Lab

C5-C8 Aliphatics	ND		ug/l	50.0	50.0	1
C9-C12 Aliphatics	ND		ug/l	50.0	50.0	1
C9-C10 Aromatics	ND		ug/l	50.0	50.0	1
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	50.0	1
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	50.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	91		70-130
2,5-Dibromotoluene-FID	111		70-130

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**Method Blank Analysis**
Batch Quality Control**Analytical Method:** 98,EPH-04-1.1**Analytical Date:** 02/19/11 09:47**Analyst:** MW**Extraction Method:** EPA 3510C**Extraction Date:** 02/18/11 00:43**Cleanup Method1:** EPH-04-1**Cleanup Date1:** 02/19/11

Parameter	Result	Qualifier	Units	RL	MDL
Extractable Petroleum Hydrocarbons - Westborough Lab for sample(s): 01 Batch: WG455578-1					
C9-C18 Aliphatics	ND		ug/l	100	100.
C19-C36 Aliphatics	ND		ug/l	100	100.
C11-C22 Aromatics	ND		ug/l	100	100.
C11-C22 Aromatics, Adjusted	ND		ug/l	100	100.

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Chloro-Octadecane	89		40-140
o-Terphenyl	73		40-140
2-Fluorobiphenyl	68		40-140
2-Bromonaphthalene	71		40-140

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 100, VPH-04-1.1

Analytical Date: 02/18/11 16:28

Analyst: TT

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Petroleum Hydrocarbons - Westborough Lab for sample(s): 01-02 Batch: WG455684-3					
C5-C8 Aliphatics	ND		ug/l	50.0	50.0
C9-C12 Aliphatics	ND		ug/l	50.0	50.0
C9-C10 Aromatics	ND		ug/l	50.0	50.0
C5-C8 Aliphatics, Adjusted	ND		ug/l	50.0	50.0
C9-C12 Aliphatics, Adjusted	ND		ug/l	50.0	50.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,5-Dibromotoluene-PID	81		70-130
2,5-Dibromotoluene-FID	101		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG455578-2 WG455578-3								
C9-C18 Aliphatics	59		65		40-140	10		25
C19-C36 Aliphatics	81		91		40-140	12		25
C11-C22 Aromatics	86		86		40-140	0		25
Naphthalene	78		76		40-140	3		25
2-Methylnaphthalene	83		81		40-140	2		25
Acenaphthylene	87		86		40-140	1		25
Acenaphthene	81		80		40-140	1		25
Fluorene	77		80		40-140	4		25
Phenanthrene	85		86		40-140	1		25
Anthracene	87		90		40-140	3		25
Fluoranthene	83		85		40-140	2		25
Pyrene	87		87		40-140	0		25
Benzo(a)anthracene	81		85		40-140	5		25
Chrysene	82		86		40-140	5		25
Benzo(b)fluoranthene	83		87		40-140	5		25
Benzo(k)fluoranthene	83		86		40-140	4		25
Benzo(a)pyrene	82		84		40-140	2		25
Indeno(1,2,3-cd)Pyrene	89		93		40-140	4		25
Dibenzo(a,h)anthracene	85		89		40-140	5		25
Benzo(ghi)perylene	87		89		40-140	2		25
Nonane (C9)	53		52		30-140	2		25

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Extractable Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01 Batch: WG455578-2 WG455578-3								
Decane (C10)	60		60		40-140	0		25
Dodecane (C12)	63		69		40-140	9		25
Tetradecane (C14)	69		78		40-140	12		25
Hexadecane (C16)	74		84		40-140	13		25
Octadecane (C18)	78		88		40-140	12		25
Nonadecane (C19)	79		90		40-140	13		25
Eicosane (C20)	79		89		40-140	12		25
Docosane (C22)	79		90		40-140	13		25
Tetracosane (C24)	81		91		40-140	12		25
Hexacosane (C26)	81		91		40-140	12		25
Octacosane (C28)	80		90		40-140	12		25
Triacontane (C30)	83		93		40-140	11		25
Hexatriacontane (C36)	88		97		40-140	10		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Chloro-Octadecane	82		86		40-140
o-Terphenyl	90		87		40-140
2-Fluorobiphenyl	75		72		40-140
2-Bromonaphthalene	80		74		40-140
% Naphthalene Breakthrough	0		0		
% 2-Methylnaphthalene Breakthrough	0		0		

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG455684-1 WG455684-2								
C5-C8 Aliphatics	93		88		70-130	6		25
C9-C12 Aliphatics	94		81		70-130	14		25
C9-C10 Aromatics	90		85		70-130	6		25
Benzene	87		83		70-130	6		25
Toluene	89		84		70-130	5		25
Ethylbenzene	90		86		70-130	4		25
p/m-Xylene	89		85		70-130	4		25
o-Xylene	88		84		70-130	4		25
Methyl tert butyl ether	89		89		70-130	0		25
Naphthalene	94		93		70-130	1		25
1,2,4-Trimethylbenzene	90		85		70-130	6		25
Pentane	88		85		70-130	4		25
2-Methylpentane	94		91		70-130	4		25
2,2,4-Trimethylpentane	100		92		70-130	8		25
n-Nonane	99		87		30-130	13		25
n-Decane	89		76		70-130	15		25
n-Butylcyclohexane	100		88		70-130	12		25

Lab Control Sample Analysis**Batch Quality Control****Project Name:** CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
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Volatile Petroleum Hydrocarbons - Westborough Lab Associated sample(s): 01-02 Batch: WG455684-1 WG455684-2

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,5-Dibromotoluene-PID	96		87		70-130
2,5-Dibromotoluene-FID	114		104		70-130

PCBS

Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water
Analytical Method: 93,8082
Analytical Date: 02/21/11 11:29
Analyst: SS

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative
Extraction Method: EPA 3510C
Extraction Date: 02/20/11 17:16
Cleanup Method1: EPA 3665A
Cleanup Date1: 02/21/11
Cleanup Method2: EPA 3660B
Cleanup Date2: 02/21/11

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
MCP Polychlorinated Biphenyls - Westborough Lab						
Aroclor 1016	ND		ug/l	0.250	0.250	1
Aroclor 1221	ND		ug/l	0.250	0.250	1
Aroclor 1232	ND		ug/l	0.250	0.250	1
Aroclor 1242	ND		ug/l	0.250	0.250	1
Aroclor 1248	ND		ug/l	0.250	0.250	1
Aroclor 1254	ND		ug/l	0.250	0.250	1
Aroclor 1260	ND		ug/l	0.250	0.250	1
Aroclor 1262	ND		ug/l	0.250	0.250	1
Aroclor 1268	ND		ug/l	0.250	0.250	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	61		30-150
2,4,5,6-Tetrachloro-m-xylene	92		30-150
Decachlorobiphenyl	55		30-150

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Analytical Method: 93,8082
 Analytical Date: 02/21/11 11:42
 Analyst: SS

Extraction Method: EPA 3510C
 Extraction Date: 02/20/11 17:16
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 02/21/11
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 02/21/11

Parameter	Result	Qualifier	Units	RL	MDL
MCP Polychlorinated Biphenyls - Westborough Lab for sample(s): 01 Batch: WG455800-1					
Aroclor 1016	ND		ug/l	0.250	0.250
Aroclor 1221	ND		ug/l	0.250	0.250
Aroclor 1232	ND		ug/l	0.250	0.250
Aroclor 1242	ND		ug/l	0.250	0.250
Aroclor 1248	ND		ug/l	0.250	0.250
Aroclor 1254	ND		ug/l	0.250	0.250
Aroclor 1260	ND		ug/l	0.250	0.250
Aroclor 1262	ND		ug/l	0.250	0.250
Aroclor 1268	ND		ug/l	0.250	0.250

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	93		30-150
Decachlorobiphenyl	80		30-150
2,4,5,6-Tetrachloro-m-xylene	108		30-150
Decachlorobiphenyl	85		30-150

Lab Control Sample Analysis**Batch Quality Control****Project Name:** CHELSEA RIVER CROSSING**Project Number:** 112558**Lab Number:** L1102207**Report Date:** 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Polychlorinated Biphenyls - Westborough Lab Associated sample(s): 01 Batch: WG455800-2 WG455800-3								
Aroclor 1016	109		113		40-140	4		20
Aroclor 1260	113		116		40-140	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	84		83		30-150
Decachlorobiphenyl	32		76		30-150
2,4,5,6-Tetrachloro-m-xylene	108		106		30-150
Decachlorobiphenyl	35		83		30-150

METALS

Project Name: CHELSEA RIVER CROSSING
Project Number: 112558

Lab Number: L1102207
Report Date: 02/23/11

SAMPLE RESULTS

Lab ID: L1102207-01
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
MCP Total Metals - Westborough Lab											
Antimony, Total	0.0013		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Arsenic, Total	0.0067		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Barium, Total	1.525		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Beryllium, Total	ND		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Cadmium, Total	ND		mg/l	0.0002	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Chromium, Total	0.0021		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Copper, Total	0.0009		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Iron, Total	36		mg/l	0.05	0.02	1	02/17/11 21:50	02/18/11 15:10	EPA 3005A	97,6010B	AI
Lead, Total	0.0121		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Mercury, Total	ND		mg/l	0.0002	0.0002	1	02/21/11 10:40	02/21/11 16:23	EPA 7470A	97,7470A	DM
Nickel, Total	0.0110		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Selenium, Total	ND		mg/l	0.001	0.001	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Silver, Total	ND		mg/l	0.0004	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Thallium, Total	ND		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Vanadium, Total	0.0019		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
Zinc, Total	1.140		mg/l	0.0050	0.0050	1	02/17/11 21:50	02/18/11 22:29	EPA 3005A	97,6020A	BM
MCP Dissolved Metals - Westborough Lab											
Antimony, Dissolved	0.0016		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Arsenic, Dissolved	0.0064		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Barium, Dissolved	1.564		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Beryllium, Dissolved	ND		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Cadmium, Dissolved	ND		mg/l	0.0002	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Chromium, Dissolved	0.0019		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Copper, Dissolved	0.0005		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Iron, Dissolved	35		mg/l	0.05	0.02	1	02/17/11 21:50	02/18/11 15:45	EPA 3005A	97,6010B	AI
Lead, Dissolved	0.0039		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Mercury, Dissolved	ND		mg/l	0.0002	0.0002	1	02/21/11 10:40	02/21/11 16:19	EPA 7470A	97,7470A	DM
Nickel, Dissolved	0.0100		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Selenium, Dissolved	ND		mg/l	0.001	0.001	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Silver, Dissolved	ND		mg/l	0.0004	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM



Project Name: CHELSEA RIVER CROSSING**Lab Number:** L1102207**Project Number:** 112558**Report Date:** 02/23/11**SAMPLE RESULTS**

Lab ID: L1102207-01

Date Collected: 02/17/11 12:25

Client ID: NC-2

Date Received: 02/17/11

Sample Location: CHELSEA, MA

Field Prep: See Narrative

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Thallium, Dissolved	ND		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Vanadium, Dissolved	0.0017		mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM
Zinc, Dissolved	1.059		mg/l	0.0050	0.0050	1	02/17/11 21:50	02/18/11 22:05	EPA 3005A	97,6020A	BM



Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG455548-1									
Iron, Total	ND	mg/l	0.05	0.02	1	02/17/11 21:50	02/18/11 15:01	97,6010B	AI

Prep Information

Digestion Method: EPA 3005A

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: WG455550-1									
Iron, Dissolved	ND	mg/l	0.05	0.02	1	02/17/11 21:50	02/18/11 15:35	97,6010B	AI

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG455650-1									
Antimony, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Arsenic, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Barium, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Beryllium, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Cadmium, Total	ND	mg/l	0.0002	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Chromium, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Copper, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Lead, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Nickel, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Selenium, Total	ND	mg/l	0.001	0.001	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Silver, Total	ND	mg/l	0.0004	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Thallium, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Vanadium, Total	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Zinc, Total	ND	mg/l	0.0050	0.0050	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

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: WG455651-1									
Antimony, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Arsenic, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Barium, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Beryllium, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Cadmium, Dissolved	ND	mg/l	0.0002	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Chromium, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Copper, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Lead, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Nickel, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Selenium, Dissolved	ND	mg/l	0.001	0.001	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Silver, Dissolved	ND	mg/l	0.0004	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Thallium, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Vanadium, Dissolved	ND	mg/l	0.0005	0.0005	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM
Zinc, Dissolved	ND	mg/l	0.0050	0.0050	1	02/17/11 21:50	02/18/11 21:17	97,6020A	BM

Prep Information

Digestion Method: EPA 3005A

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: WG455861-1									
Mercury, Dissolved	ND	mg/l	0.0002	0.0002	1	02/21/11 10:40	02/21/11 16:10	97,7470A	DM

Prep Information

Digestion Method: EPA 7470A

Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

Method Blank Analysis Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
MCP Total Metals - Westborough Lab for sample(s): 01 Batch: WG455862-1										
Mercury, Total	ND		mg/l	0.0002	0.0002	1	02/21/11 10:40	02/21/11 16:10	97,7470A	DM

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG455548-2 WG455548-3								
Iron, Total	100		100		80-120	0		20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG455550-2 WG455550-3								
Iron, Dissolved	100		100		80-120	0		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG455650-2 WG455650-3								
Antimony, Total	93		96		80-120	3		20
Arsenic, Total	102		104		80-120	2		20
Barium, Total	100		102		80-120	2		20
Beryllium, Total	95		96		80-120	1		20
Cadmium, Total	106		111		80-120	5		20
Chromium, Total	103		108		80-120	5		20
Copper, Total	105		109		80-120	4		20
Lead, Total	105		108		80-120	3		20
Nickel, Total	106		110		80-120	4		20
Selenium, Total	103		108		80-120	5		20
Silver, Total	96		98		80-120	2		20
Thallium, Total	92		96		80-120	4		20
Vanadium, Total	101		106		80-120	5		20
Zinc, Total	106		106		80-120	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG455651-2 WG455651-3					
Antimony, Dissolved	93	96	80-120	3	20
Arsenic, Dissolved	102	104	80-120	2	20
Barium, Dissolved	100	102	80-120	2	20
Beryllium, Dissolved	95	96	80-120	1	20
Cadmium, Dissolved	106	111	80-120	5	20
Chromium, Dissolved	103	108	80-120	5	20
Copper, Dissolved	105	109	80-120	4	20
Lead, Dissolved	105	108	80-120	3	20
Nickel, Dissolved	106	110	80-120	4	20
Selenium, Dissolved	103	108	80-120	5	20
Silver, Dissolved	96	98	80-120	2	20
Thallium, Dissolved	92	96	80-120	4	20
Vanadium, Dissolved	101	106	80-120	5	20
Zinc, Dissolved	106	106	80-120	0	20

MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 Batch: WG455861-2 WG455861-3

Mercury, Dissolved	114	107	80-120	6	20
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MCP Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG455862-2 WG455862-3

Mercury, Total	114	107	80-120	6	20
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Matrix Spike Analysis **Batch Quality Control**

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455548-4 QC Sample: L1102207-01 Client ID: NC-2												
Iron, Total	36.	1	37	100		-	-		75-125	-		20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455550-4 QC Sample: L1102207-01 Client ID: NC-2												
Iron, Dissolved	35.	1	35	0		-	-		75-125	-		20
MCP Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455650-4 QC Sample: L1102207-01 Client ID: NC-2												
Antimony, Total	0.0013	0.5	0.4760	95		-	-		75-125	-		20
Arsenic, Total	0.0067	0.12	0.1312	104		-	-		75-125	-		20
Barium, Total	1.525	2	3.492	98		-	-		75-125	-		20
Beryllium, Total	ND	0.05	0.0480	96		-	-		75-125	-		20
Cadmium, Total	ND	0.051	0.0534	105		-	-		75-125	-		20
Chromium, Total	0.0021	0.2	0.2018	100		-	-		75-125	-		20
Copper, Total	0.0009	0.25	0.2631	105		-	-		75-125	-		20
Lead, Total	0.0121	0.51	0.5460	105		-	-		75-125	-		20
Nickel, Total	0.0110	0.5	0.5312	104		-	-		75-125	-		20
Selenium, Total	ND	0.12	0.125	104		-	-		75-125	-		20
Silver, Total	ND	0.05	0.0464	93		-	-		75-125	-		20
Thallium, Total	ND	0.12	0.1108	92		-	-		75-125	-		20
Vanadium, Total	0.0019	0.5	0.5120	102		-	-		75-125	-		20
Zinc, Total	1.140	0.5	1.710	114		-	-		75-125	-		20

Matrix Spike Analysis **Batch Quality Control**

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455651-4 QC Sample: L1102207-01 Client ID: NC-2									
Antimony, Dissolved	0.0016	0.5	0.4792	96	-	-	75-125	-	20
Arsenic, Dissolved	0.0064	0.12	0.1322	105	-	-	75-125	-	20
Barium, Dissolved	1.564	2	3.569	100	-	-	75-125	-	20
Beryllium, Dissolved	ND	0.05	0.0474	95	-	-	75-125	-	20
Cadmium, Dissolved	ND	0.051	0.0535	105	-	-	75-125	-	20
Chromium, Dissolved	0.0019	0.2	0.2051	102	-	-	75-125	-	20
Copper, Dissolved	0.0005	0.25	0.2602	104	-	-	75-125	-	20
Lead, Dissolved	0.0039	0.51	0.5412	105	-	-	75-125	-	20
Nickel, Dissolved	0.0100	0.5	0.5300	104	-	-	75-125	-	20
Selenium, Dissolved	ND	0.12	0.126	105	-	-	75-125	-	20
Silver, Dissolved	ND	0.05	0.0470	94	-	-	75-125	-	20
Thallium, Dissolved	ND	0.12	0.1114	93	-	-	75-125	-	20
Vanadium, Dissolved	0.0017	0.5	0.5088	101	-	-	75-125	-	20
Zinc, Dissolved	1.059	0.5	1.599	108	-	-	75-125	-	20
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455861-4 QC Sample: L1102207-01 Client ID: NC-2									
Mercury, Dissolved	ND	0.001	0.0012	116	-	-	75-125	-	20
MCP Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455862-4 QC Sample: L1102207-01 Client ID: NC-2									
Mercury, Total	ND	0.001	0.0012	118	-	-	75-125	-	20

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

**Lab Serial Dilution
Analysis
Batch Quality Control**

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
MCP Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455548-6 QC Sample: L1102207-01 Client ID: NC-2						
Iron, Total	36.	36	mg/l	0		10
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455550-6 QC Sample: L1102207-01 Client ID: NC-2						
Iron, Dissolved	35.	35	mg/l	0		10
MCP Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455650-5 QC Sample: L1102207-01 Client ID: NC-2						
Barium, Total	1.525	1.802	mg/l	18	Q	10
Zinc, Total	1.140	1.434	mg/l	26	Q	10
MCP Dissolved Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455651-5 QC Sample: L1102207-01 Client ID: NC-2						
Barium, Dissolved	1.564	1.758	mg/l	12	Q	10
Zinc, Dissolved	1.059	1.244	mg/l	17	Q	10

INORGANICS & MISCELLANEOUS

Project Name: CHELSEA RIVER CROSSING
Project Number: 112558

Lab Number: L1102207
Report Date: 02/23/11

SAMPLE RESULTS

Lab ID: L1102207-01
Client ID: NC-2
Sample Location: CHELSEA, MA
Matrix: Water

Date Collected: 02/17/11 12:25
Date Received: 02/17/11
Field Prep: See Narrative

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	55		mg/l	5.0	NA	1	-	02/18/11 09:10	30,2540D	DW
Cyanide, Total	0.008		mg/l	0.005	0.001	1	02/18/11 13:15	02/18/11 16:22	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	0.01	1	-	02/17/11 21:00	30,4500CL-D	KK
TPH	ND		mg/l	4.40	0.946	1.1	02/18/11 10:30	02/21/11 11:45	74,1664A	JO
Phenolics, Total	3.0		mg/l	0.15	0.05	5	02/18/11 16:15	02/18/11 19:16	4,420.1	TP
Chromium, Hexavalent	0.004	J	mg/l	0.010	0.001	1	02/17/11 23:10	02/17/11 23:23	30,3500CR-D	TP
Anions by Ion Chromatography - Westborough Lab										
Chloride	21		mg/l	0.50	0.07	1	-	02/17/11 21:17	44,300.0	AU



Project Name: CHELSEA RIVER CROSSING

Lab Number: L1102207

Project Number: 112558

Report Date: 02/23/11

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 Batch: WG455563-1										
Chlorine, Total Residual	ND		mg/l	0.02	0.01	1	-	02/17/11 21:00	30,4500CL-D	KK
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG455574-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.001	1	02/17/11 23:10	02/17/11 23:21	30,3500CR-D	TP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG455595-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	02/18/11 09:10	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG455633-2										
TPH	ND		mg/l	4.00	0.860	1	02/18/11 10:30	02/21/11 11:45	74,1664A	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG455656-2										
Cyanide, Total	ND		mg/l	0.005	0.001	1	02/18/11 13:15	02/18/11 16:08	30,4500CN-CE	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG455715-1										
Chloride	ND		mg/l	0.50	0.07	1	-	02/17/11 18:17	44,300.0	AU
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG455717-1										
Phenolics, Total	ND		mg/l	0.03	0.01	1	02/18/11 16:15	02/18/11 19:13	4,420.1	TP

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG455563-2								
Chlorine, Total Residual	93		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG455574-2								
Chromium, Hexavalent	100		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG455633-1								
TPH	95		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG455656-1								
Cyanide, Total	97		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG455715-2								
Chloride	100		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG455717-2								
Phenolics, Total	104		-		82-111	-		12

Matrix Spike Analysis **Batch Quality Control**

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

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 QC Batch ID: WG455574-3 QC Sample: L1102207-01 Client ID: NC-2												
Chromium, Hexavalent	0.004J	0.1	0.101	101		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455633-3 QC Sample: L1101296-72 Client ID: MS Sample												
TPH	ND	4	16.7	80		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455656-3 QC Sample: L1102188-01 Client ID: MS Sample												
Cyanide, Total	0.003J	0.2	0.210	105		-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455715-3 QC Sample: L1102207-01 Client ID: NC-2												
Chloride	21.	4	23	50		-	-		40-151	-		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455717-3 QC Sample: L1102207-01 Client ID: NC-2												
Phenolics, Total	3.0	4	6.8	96		-	-		77-124	-		12

Lab Duplicate Analysis Batch Quality Control

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455563-3 QC Sample: L1102203-01 Client ID: DUP Sample						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455574-4 QC Sample: L1102207-01 Client ID: NC-2						
Chromium, Hexavalent	0.004J	0.004J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455595-2 QC Sample: L1102117-01 Client ID: DUP Sample						
Solids, Total Suspended	410	400	mg/l	2		32
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455633-4 QC Sample: L1101296-73 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455656-4 QC Sample: L1102188-01 Client ID: DUP Sample						
Cyanide, Total	0.003J	0.002J	mg/l	NC		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455715-4 QC Sample: L1102207-01 Client ID: NC-2						
Chloride	21.	19	mg/l	10		18
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG455717-4 QC Sample: L1102207-01 Client ID: NC-2						
Phenolics, Total	3.0	2.8	mg/l	7		12

Project Name: CHELSEA RIVER CROSSING**Project Number:** 112558**Lab Number:** L1102207**Report Date:** 02/23/11**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

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1102207-01A	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	624(7)
L1102207-01B	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	624(7)
L1102207-01C	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	504(14)
L1102207-01D	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	504(14)
L1102207-01E	Vial HCl preserved	A	N/A	4.6	Y	Absent	VPH-10(14)
L1102207-01F	Vial HCl preserved	A	N/A	4.6	Y	Absent	VPH-10(14)
L1102207-01G	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	MCP-8082-10(365)
L1102207-01H	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	MCP-8082-10(365)
L1102207-01I	Amber 1000ml HCl preserved	A	<2	4.6	Y	Absent	EPH-10(14)
L1102207-01J	Amber 1000ml HCl preserved	A	<2	4.6	Y	Absent	EPH-10(14)
L1102207-01K	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1102207-01L	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1102207-01M	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1102207-01N	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	MCP-8270-10(7),MCP-8270SIM-10(7)
L1102207-01O	Amber 1000ml HCl preserved	A	<2	4.6	Y	Absent	TPH-1664(28)
L1102207-01P	Amber 1000ml H2SO4 preserved	A	<2	4.6	Y	Absent	TPHENOL-420(28)
L1102207-01Q	Plastic 1000ml unpreserved	A	7	4.6	Y	Absent	TSS-2540(7)
L1102207-01R	Plastic 250ml NaOH preserved	A	>12	4.6	Y	Absent	TCN-4500(14)
L1102207-01S	Plastic 1000ml unpreserved	A	7	4.6	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1102207-01T	Plastic 1000ml unpreserved	A	7	4.6	Y	Absent	CL-300(28),HEXCR-3500(1),TRC-4500(1)

*Values in parentheses indicate holding time in days

Project Name: CHELSEA RIVER CROSSING

Project Number: 112558

Lab Number: L1102207

Report Date: 02/23/11

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1102207-01U	Plastic 1000ml HNO3 preserved	A	<2	4.6	Y	Absent	MCP-FE-6010T-10(180),MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-TL-6020T-10(180),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1102207-01V	Plastic 1000ml HNO3 preserved	A	<2	4.6	Y	Absent	MCP-FE-6010T-10(180),MCP-V-6020T-10(180),MCP-BE-6020T-10(180),MCP-CR-6020T-10(180),MCP-7470T-10(28),MCP-TL-6020T-10(180),MCP-CU-6020T-10(180),MCP-ZN-6020T-10(180),MCP-AS-6020T-10(180),MCP-NI-6020T-10(180),MCP-AG-6020T-10(180),MCP-CD-6020T-10(180),MCP-SE-6020T-10(180),MCP-BA-6020T-10(180),MCP-PB-6020T-10(180),MCP-SB-6020T-10(180)
L1102207-01X	Amber 1000ml HNO3 preserved	A	<2	4.6	Y	Absent	MCP-BE-6020S-10(180),MCP-FE-6010S-10(180),MCP-PB-6020S-10(180),MCP-7470S-10(28),MCP-SB-6020S-10(180),MCP-CU-6020S-10(180),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-CR-6020S-10(180)

*Values in parentheses indicate holding time in days



Project Name: CHELSEA RIVER CROSSING**Project Number:** 112558**Lab Number:** L1102207**Report Date:** 02/23/11**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1102207-01Y	Plastic 1000ml HNO3 preserved	A	<2	4.6	Y	Absent	MCP-BE-6020S-10(180),MCP-FE-6010S-10(180),MCP-PB-6020S-10(180),MCP-7470S-10(28),MCP-SB-6020S-10(180),MCP-CU-6020S-10(180),MCP-TL-6020S-10(180),MCP-BA-6020S-10(180),MCP-CD-6020S-10(180),MCP-SE-6020S-10(180),MCP-AS-6020S-10(180),MCP-NI-6020S-10(180),MCP-AG-6020S-10(180),MCP-V-6020S-10(180),MCP-ZN-6020S-10(180),MCP-CR-6020S-10(180)
L1102207-02A	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	624(7)
L1102207-02B	Vial HCl preserved	A	N/A	4.6	Y	Absent	VPH-10(14)

*Values in parentheses indicate holding time in days

Project Name: CHELSEA RIVER CROSSING
Project Number: 112558

Lab Number: L1102207
Report Date: 02/23/11

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.
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.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Data Qualifiers

A	· Spectra identified as "Aldol Condensation Product".
B	· The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than 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.
D	· Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
E	· Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
G	· The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.
H	· The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
I	· The RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported due to obvious interference.
P	· The RPD between the results for the two columns exceeds the method-specified criteria.
Q	· The quality control sample exceeds the associated acceptance criteria. 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

Report Format: DU Report with "J" Qualifiers



Project Name: CHELSEA RIVER CROSSING
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Data Qualifiers

the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL). This represents an estimated concentration for Tentatively Identified Compounds (TICs).

ND - Not detected at the method detection limit (MDL) for the sample.

Report Format: DU Report with "J" Qualifiers



Project Name: CHELSEA RIVER CROSSING
Project Number: 112558

Lab Number: L1102207
Report Date: 02/23/11

REFERENCES

- 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.
- 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.
- 93 Compendium of Quality Assurance and Quality Control Requirements and Performance Standards for Selected Analytical Methods. MADEP BWSC. Draft Revisions. September-December 2009.
- 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 VIIB, July 2010.
- 98 Method for the Determination of Extractable Petroleum Hydrocarbons (EPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of EPH under the Massachusetts Contingency Plan, WSC-CAM-IVB, July 2010.
- 100 Method for the Determination of Volatile Petroleum Hydrocarbons (VPH), MassDEP, May 2004, Revision 1.1 with QC Requirements & Performance Standards for the Analysis of VPH under the Massachusetts Contingency Plan, WSC-CAM-IVA, 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 February 23, 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, 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, EPA 200.7, 200.8, 245.1. Organic Parameters: 608, 624, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

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.)

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, 7470A, 5540C, 4500H-B, EPA 200.8, SM3500Cr-D, 4500CN-CE, EPA 245.1, 245.2, SW-846 9040B, 3005A, EPA 6010B, 7196A, SW-846 9010B, 9030B. Organic Parameters: SW-846 8260B, 8270C, 8270C-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8081A, 8082, 8151A, 8330, NJ OQA-QAM-025 Rev.7, NJ EPH.)

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

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. *NELAP Accredited.*

Drinking Water (Organic Parameters: EPA 524.2)

Non-Potable Water (Inorganic Parameters: EPA 1312. 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 Commisson 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 S²⁻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.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **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. **EPA 350.1** for Ammonia in a Soil matrix.

CHAIN OF CUSTODY

PAGE 1 OF 2



WESTBORO, MA
TEL: 508-898-9220
FAX: 508-898-9193

MANFIELD, MA
TEL: 508-822-9300
FAX: 508-822-3288

Client Information

Client: TRC

Address: 650 Suffolk Street

Lowell, MA 01854

Phone: 978-976-5600

Fax: 978-453-1945

Email: dmcclellan@trcsolutions.com

☐ These samples have been previously analyzed by Alpha

Other Project Specific Requirements/Comments/Detection Limits:

* MCP-13 Metals + Hg, Cr^{VI}, Cu, Pb
- Dissolved metals filtered through 0.45 um filter

Need RGP detection limits

ALPHA Lab ID

Sample ID

Collection Date Time

Sample Matrix

Sampler's Initials

02207

NC-2

2/17/11 1225

GW

KL

2 Trip Blank

2/15

ANALYSIS

VOC (826.08) ☒
 PCB (8082) ☒
 EDB (504.1) ☒
 Total Metals* ☒
 Dissolved Metals* ☒
 VPH ☒
 SVOC (8270) ☒
 EPH ☒
 TSS (160.2) ☒
 TCN (385.4) ☒
 G24 ☒
 Total Phenols (426.1) ☒

SAMPLE HANDLING

Filtration ☒ Done ☐ Not needed
 Lab to do ☐ Lab to do
 Preservation ☐ Lab to do
 (Please specify below)

TOTAL # BOTTLES

Report Information - Data Deliverables

☐ FAX ☒ EMAIL
☐ ADEX ☐ Add'l Deliverables

Regulatory Requirements/Report Limits

State/Fed Program Criteria

EPA RGP

MA MCP PRESUMPTIVE CERTAINTY --- CT REASONABLE CONFIDENCE PROTO.

☒ Yes ☐ No Are MCP Analytical Methods Required?
☐ Yes ☒ No Are CT RCP (Reasonable Confidence Protocols) Required?

Date Rec'd in Lab

2/17/11

ALPHA Job #

1102207

Billing Information

☐ Same as Client Info ☐ PO #:

PLEASE ANSWER QUESTIONS ABOVE!

IS YOUR PROJECT
MA MCP or CT RCP?

Relinquished By:

Kevin Johnson

Date/Time

2/17/11 1855

Received By:

Dan Lunn

Date/Time

2/17/11 1855

Container Type Preservative

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. All samples submitted are subject to Alpha's Terms and Conditions. See reverse side.

