



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

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

CERTIFIED MAIL RETURN RECEIPT REQUESTED

MAR 13 2014

Michael Peterson
Design Phase Manager
Mortenson Construction
17975 W. Sarah Lane
Brookfield, MA 01506

Re: Authorization to discharge under the Remediation General Permit (RGP) –
MAG910000.Hotel Commonwealth Expansion site located at 500 Commonwealth Ave.,
Boston, MA 0225, Suffolk County; Authorization # MAG910610

Dear Mr. Peterson:

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

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

Please note the enclosed checklist includes parameters that the consulting firm believed to be present. Also, the total petroleum hydrocarbons (TPH) parameter is included in the checklist to protect the receiving stream from potential left over contamination from the historic underground storage tanks spill reported in the NOI.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. For each parameter the dilution factor 64.48 for this site is

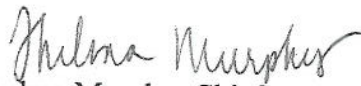
RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for arsenic of 500 ug/L, nickel of 2,380 ug/L, and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

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

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on December 31, 2014. 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,


Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Paul Canavan, Boston, BWSC
Lee Vanzler, Haley&Aldrich

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

NPDES Authorization Number:		MAG910610
Authorization Issued:	March, 1014	
Facility/Site Name:	Hotel Commonwealth Expansion	
Facility/Site Address:	500 Commonwealth Avenue, Boston, MA 02215, Suffolk County	
	Email address of owner: asperling@hotelcommonwealth.com	
Legal Name of Operator:	Mortenson Construction	
Operator contact name, title, and Address:	Michael Peterson, Design Phase Manager 17975W. Sarah Lane, Brookfield, MA 53045	
	Email Michael.Peterson@mortenso.com	
Estimated date of The Project Completion:	08/10/2013	
Category and Sub-Category:	Category III- Contaminated Construction Dewatering. Sub-category A. General Urban Fill Sites	
RGP Termination Date:	December 31, 2014	
Receiving Water:	Charles 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#160.2/ML 5ug/L
	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/ML 5.0mg/L
	4. Cyanide (CN) ^{2, 3}	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ML 2ug/L

	<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)
	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 (TAME)	Monitor Only(ug/L)/Me#8260C/ML 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/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) ⁶	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML 5ug/L

	<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)
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	b. Benzo(a) Pyrene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene ⁷	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	e. Chrysene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene ⁷	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene ⁵	20 ug/L / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) ^{8,9}	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
✓	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal Parameters	Total Recoverable MA/Metal Limit $H^{10} = 50 \text{ mg/l}$ CaCO₃, Units = ug/l ^(11/12)		Minimum level=ML	
		Freshwater Limits			
	39. Antimony	5.6		ML	10
✓	40. Arsenic **	500		ML	20
	41. Cadmium **	0.2		ML	10
	42. Chromium III (trivalent) **	48.8		ML	15
	43. Chromium VI (hexavalent) **	11.4		ML	10
	44. Copper **	5.2		ML	15
	45. Lead **	1.3		ML	20
	46. Mercury **	0.9		ML	02
✓	47. Nickel **	1451		ML	20
	48. Selenium **	5		ML	20
	49. Silver	1.2		ML	10
	50. Zinc **	66.6		ML	15
✓	51. Iron	5,000		ML	20

	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

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

Tel: 617.886.7400
Fax: 617.886.7600
HaleyAldrich.com



13 February 2014
File No. 39876-041

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Mail Code OEP06-4
Boston, MA 02109-3912

Attention: Remediation General Permit NOI Processing

Subject: Notice of Intent (NOI)
Temporary Construction Dewatering
Hotel Commonwealth Expansion – 500 Commonwealth Avenue
Boston, Massachusetts

Ladies & Gentlemen:

On behalf of the project owner, Kenmore Hotel, LLC, and in accordance with the National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) in Massachusetts, MAG910000, this letter submits a Notice of Intent (NOI) and the applicable documentation as required by the US Environmental Protection Agency (EPA) for temporary discharge of construction site dewatering effluent under the RGP. Temporary construction dewatering is necessary to facilitate the below-grade construction associated with a new hotel building to be built at 500 Commonwealth Avenue in Boston, Massachusetts, as shown on Figure 1. We anticipate temporary construction dewatering will be conducted, as necessary, during excavation for pile caps, grade beams and foundation walls, and during excavation for utility improvements.

Site History

Historical sources (Sanborn Insurance Maps) indicate the site was vacant land (i.e., no building structures) dating back to 1897 through the present. Starting in 1964 and up to the present, the subject site has been utilized as an asphalt paved parking lot. Historical records have not indicated any structures or petroleum/hazardous material storage tanks on the subject site.

Regulatory Background

Applicable Massachusetts Contingency Plan (MCP) Reportable Concentrations pursuant to the MCP 310 CMR 40.0000 for this site are RCS-1 for soil and RCGW-2 for groundwater (as site groundwater would not be considered to be, nor proximal to, a current or potential drinking water supply). The subject development parcel is contained within the limits of a previously reported “Disposal Site” (Site) that was assigned Release Tracking Number (RTN) 3-18648 in 1999. The Site achieved regulatory closure in 2002 following remedial soil excavation and removal, and groundwater treatment during removal of former underground storage tanks (USTs) as part of the Hotel Commonwealth construction.

Temporary Construction Dewatering Notice of Intent

In support of the NOI, Haley & Aldrich, Inc. collected a composite water sample from observation well HA13-B4(OW), located at the southeast corner of the Site, as shown on Figure 2. The sample was submitted in December 2013 to Alpha Analytical Laboratory of Westborough, Massachusetts for analysis for NPDES RGP permit parameters including VOCs, SVOCs, PAHs, total metals, TPH, pesticides, PCBs, Total Suspended Solids (TSS), chloride, total cyanide, total phenolics and total residual chlorine. The analytical results for the December 2013 groundwater sample identified concentrations below applicable NPDES RGP Effluent Limits with the exception of total iron, which slightly exceeded the effluent limits. The results of water quality testing conducted for this NOI are summarized in Table I.

Dewatering is generally planned to be conducted from sumps or temporary dewatering wells located within the excavation limits. Dewatering is necessary to control groundwater, seepage, precipitation, surface water runoff and construction-generated water to enable construction in-the-dry. Construction dewatering is currently anticipated to begin in May 2014 and possibly extend until December 2014.

As part of the dewatering, an effluent treatment system will be designed by the Contractor to meet NPDES RGP discharge criteria. Prior to discharge, collected water will be routed through a sedimentation tank with an oil/water separator component and bag filters, at a minimum, to remove suspended solids and undissolved chemical constituents. Supplemental effluent treatment may be required to meet discharge criteria as shown in the Proposed Treatment System Schematic included in Figure 3.

Discharge of construction dewatering effluent under this RGP NOI will be to an existing 12-inch storm drain near the Site either on Newbury Street or the alleyway to the north; see Figures 4A and 4B. The storm drain continues north along Kenmore Street and discharges to the Charles River by way of outfall DO #040.

Dilution Factor Application for Metals

As noted previously, results from analytical testing on the water sample collected at the site indicate concentrations of total iron that exceed RGP discharge limits. Accordingly, a Dilution Factor (DF) was calculated for the detected levels of total iron greater than the applicable RGP Effluent Limits. The calculated DF was used to find the appropriate Dilution Range concentrations for iron. The DF was calculated using the following equation:

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

where Q_d is the maximum discharge flow rate, estimated to be 80 gallons per minute (GPM) or approximately 0.18 cubic feet per second (cfs), and Q_s is the receiving water flow rate, minimum for 7 consecutive days with a recurrence interval of 10 years, assumed to be 11.3 cfs based on data collected by the United States Geological Survey (USGS). Using these assumed values, the DF is equal to 64.5.

According to Appendix IV of the Remediation General Permit, the total recoverable metals limitation for the calculated dilution factor of 64.5 for total iron is 5000 $\mu\text{g/L}$, which is well below the concentration measured in the on-site groundwater (1100 $\mu\text{g/L}$). Therefore, if testing of the dewatering effluent indicates concentrations greater than these limits, supplemental effluent treatment will be implemented.

Appendices

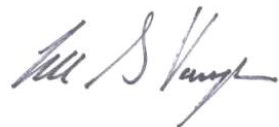
The completed "Suggested Notice of Intent" (NOI) form as provided in the RGP is enclosed in Appendix A. The site operator is Mortenson Construction. Columbia Construction is the construction manager and will engage a subcontractor to conduct the Site work, including the dewatering activities. An Owner's Representative will monitor the Contractor's dewatering activities on behalf of the project owner. In accordance with the requirements for this NOI submission, Kenmore Hotel, LLC. as the project owner and Mortenson Construction as the site operator are listed as co-permittees for this NPDES RGP, and therefore both have signed the NOI form.

Closing

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

Sincerely yours,

HALEY & ALDRICH, INC



Assistant Project Manager



Vice President

., LSP

Attachments:

Table I	Summary of Groundwater Quality Data
Figure 1	Project Locus
Figure 2	Site and Subsurface Exploration Location Plan
Figure 3	Proposed Treatment System Schematic
Figures 4A and 4B	Boston Water and Sewer Commission Sewer Plan
Appendix A	Suggested Notice of Intent (NOI) form for Remediation General Permit
Appendix B	Best Management Practices Plan (BMPP)
Appendix C	National Register of Historic Places and Massachusetts Historical Commission Documentation
Appendix D	Endangered Species Act Documentation
Appendix E	Boston Water and Sewer Commission Permit Application
Appendix F	MADEP Transmittal Form for Permit Application BRP WM10
Appendix G	Laboratory Data Reports for Groundwater Sampling/Testing

c: MADEP; Attn: Division of Watershed Management, Rober Kubit
Boston Water and Sewer Commission; Attn: Francis McLaughlin
Mortenson Development, Inc.; Attn: Michael Peterson
Kenmore Hotel, LLC; Attn: Adam Sperling
Columbia Construction; Attn: Matt Johnson
Group One Partners, Inc.; Attn: Antonino Donato

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TABLE I - SUMMARY OF GROUNDWATER QUALITY DATA
HOTEL COMMONWEALTH EXPANSION
BOSTON, MASSACHUSETTS
FILE NO. 39876-041

SAMPLE DESIGNATION SAMPLING DATE LAB SAMPLE ID	2008 MCP RCGW-2 Reportable Concentrations (ug/l)	NPDES RGP Effluent Limits (ug/l)	HA13-B4(OW) 1/30/2013 L1301774-04
VOCs by GC/MS (ug/l)			
Total VOCs	NA	NA	ND
VOCs by GC/MS-SIM (ug/l) 1,4-Dioxane	6000	NA	ND(1.5)
SVOCs by GC/MS (ug/l)			
Total SVOCs	NA	NA	ND
SVOCs by GC/MS-SIM (ug/l)			
Total SVOCs	NA	NA	ND
Total Metals (ug/l)			
Antimony, Total	8000	5.6	ND(1)
Arsenic, Total	900	10	5.34
Cadmium, Total	4	0.2	ND(0.2)
Chromium, Total	300	48.8	ND(1)
Chromium, Hexavalent	300	11.4	ND(5)
Copper, Total	100000	5.2	ND(1)
Iron, Total	NA	1000	1100
Lead, Total	10	1.3	ND(1)
Mercury, Total	20	0.9	ND(0.1)
Nickel, Total	200	29	1.22
Selenium, Total	100	5	ND(5)
Silver, Total	7	1.2	ND(0.4)
Zinc, Total	900	66.6	ND(10)
TPH (ug/l)	5000	5000	ND(2000)
Microextractables by GC (ug/l) 1,2-Dibromoethane	2	0.05	ND(0.005)
PCBs by GC (ug/l)			
Total PCBs	5	0.000064	ND
Miscellaneous			
Chlorine, Total Residual (ug/l)	NA	11	ND(10)
Cyanide, Total (ug/l)	30	5.2	ND(2.5)
Phenolics, Total (ug/l)	NA	300	30
Solids, Total Suspended (ug/l)	NA	30000	ND(2500)
Chloride (ug/l)	NA	NA	663000

NOTES & ABBREVIATIONS:

NA: Not Applicable

-: Not Analyzed

ND: Not Detected. Number in parentheses is one-half the laboratory reporting limit.

VOCs: Volatile Organic Compounds

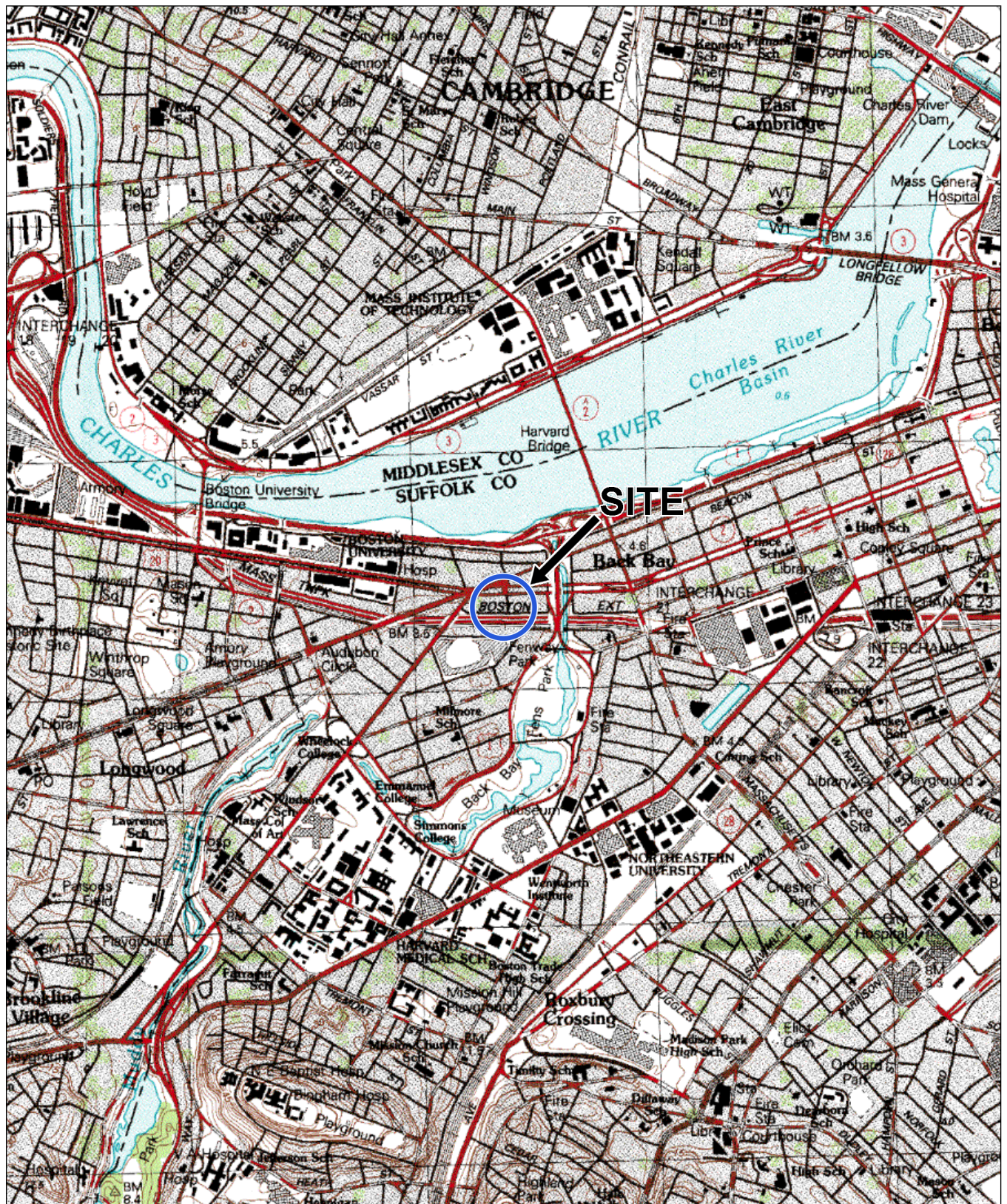
SVOCs: Semivolatile Organic Compounds

TPH: Total Petroleum Hydrocarbons

PCBs: Polychlorinated Biphenyls

1. Only compounds detected at least once are shown.

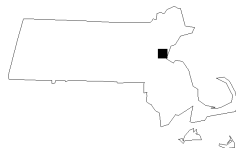
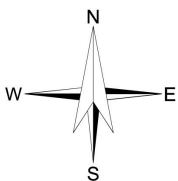
2. ***Bold italicized values indicate an exceedance of applicable NPDES RGP Effluent Limits.***



SITE COORDINATES: 42°20'53"N, 71°5'44"W

HALEY & ALDRICH

HOTEL COMMONWEALTH EXPANSION
500 COMMONWEALTH AVENUE
BOSTON, MASSACHUSETTS

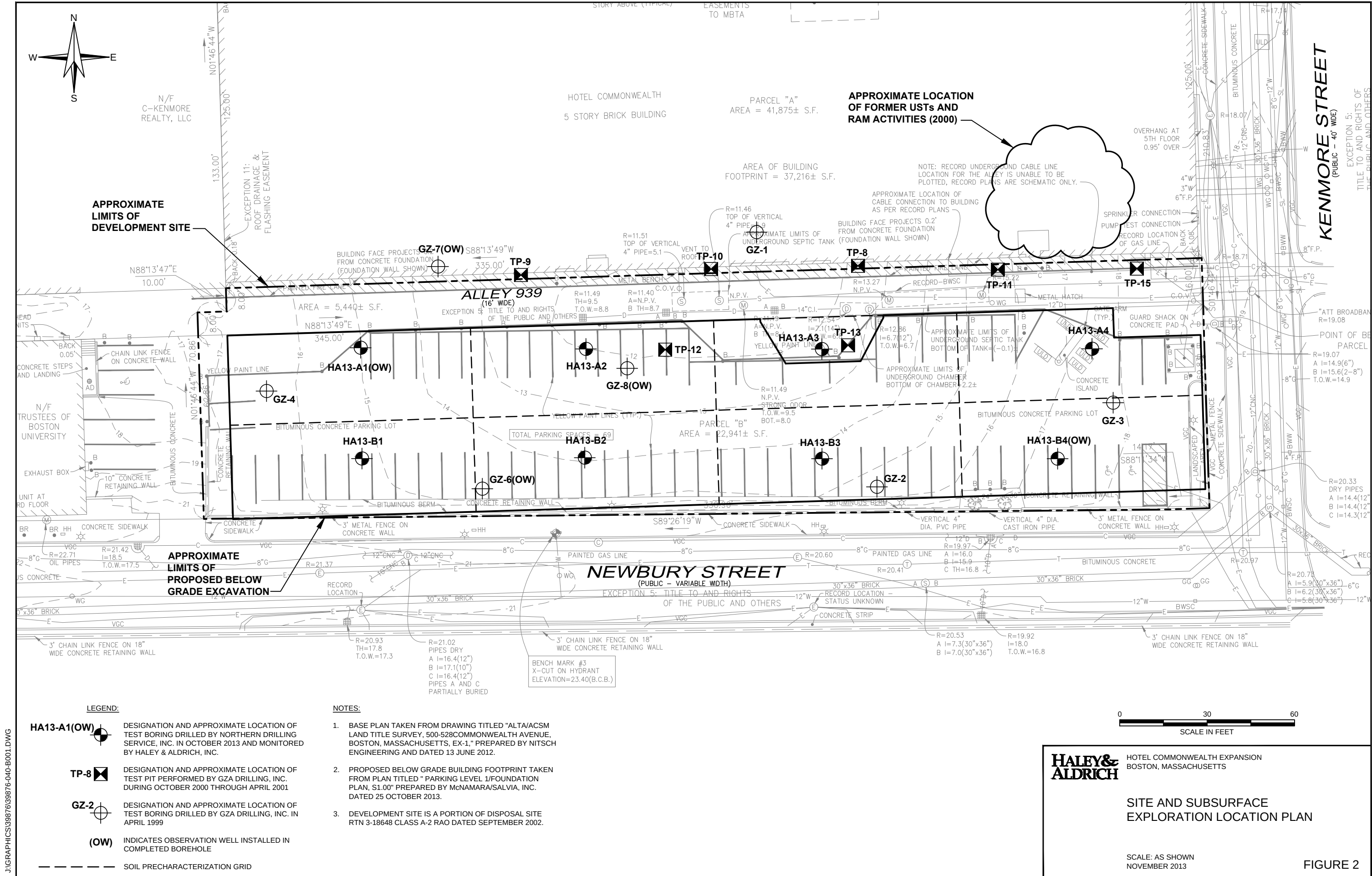


U.S.G.S. QUADRANGLE: BOSTON SOUTH, MA

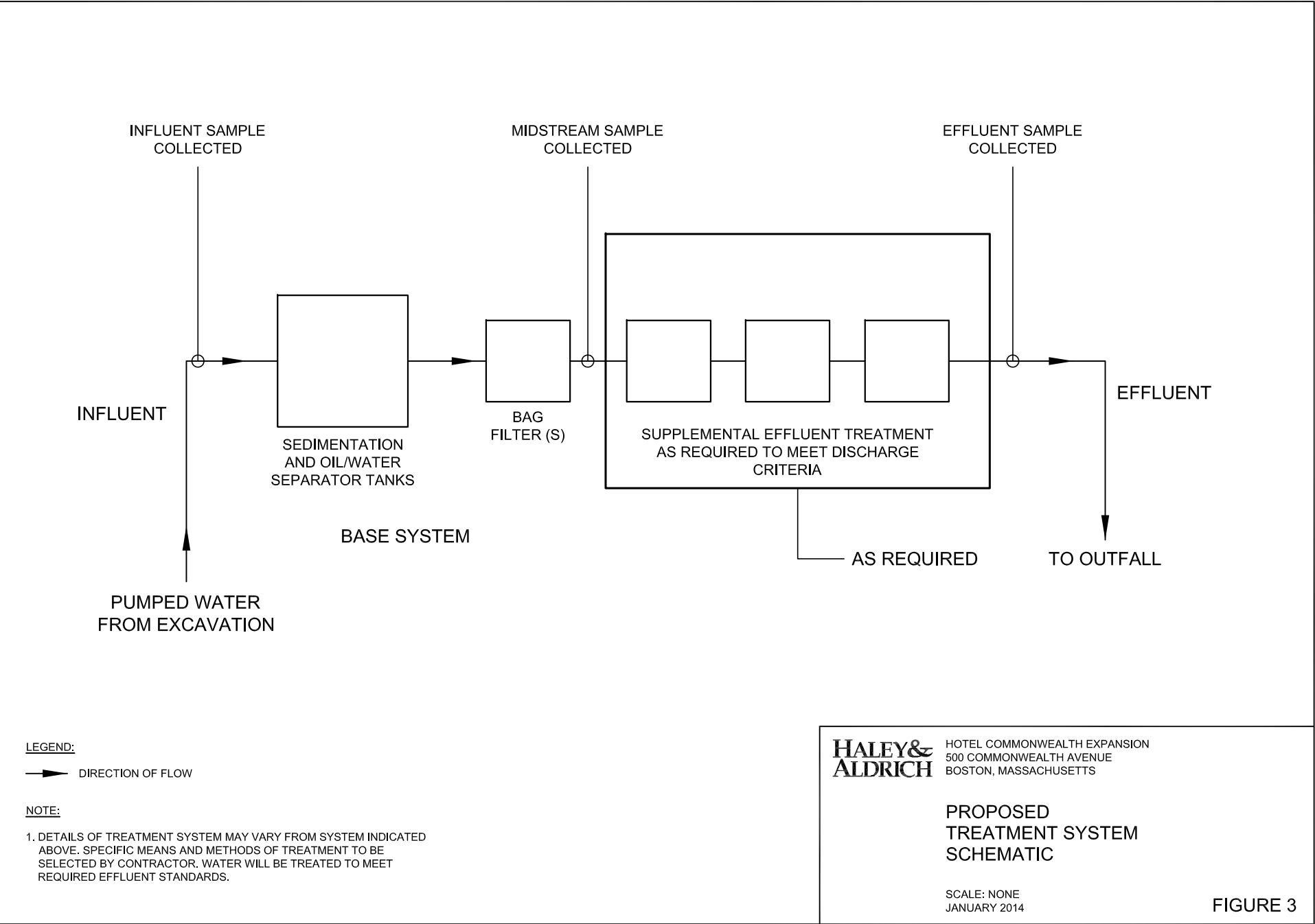
PROJECT LOCUS

SCALE: 1:24,000
NOVEMBER 2013

FIGURE 1



J:\GRAPHICS\39876\39876-040-B001.DWG



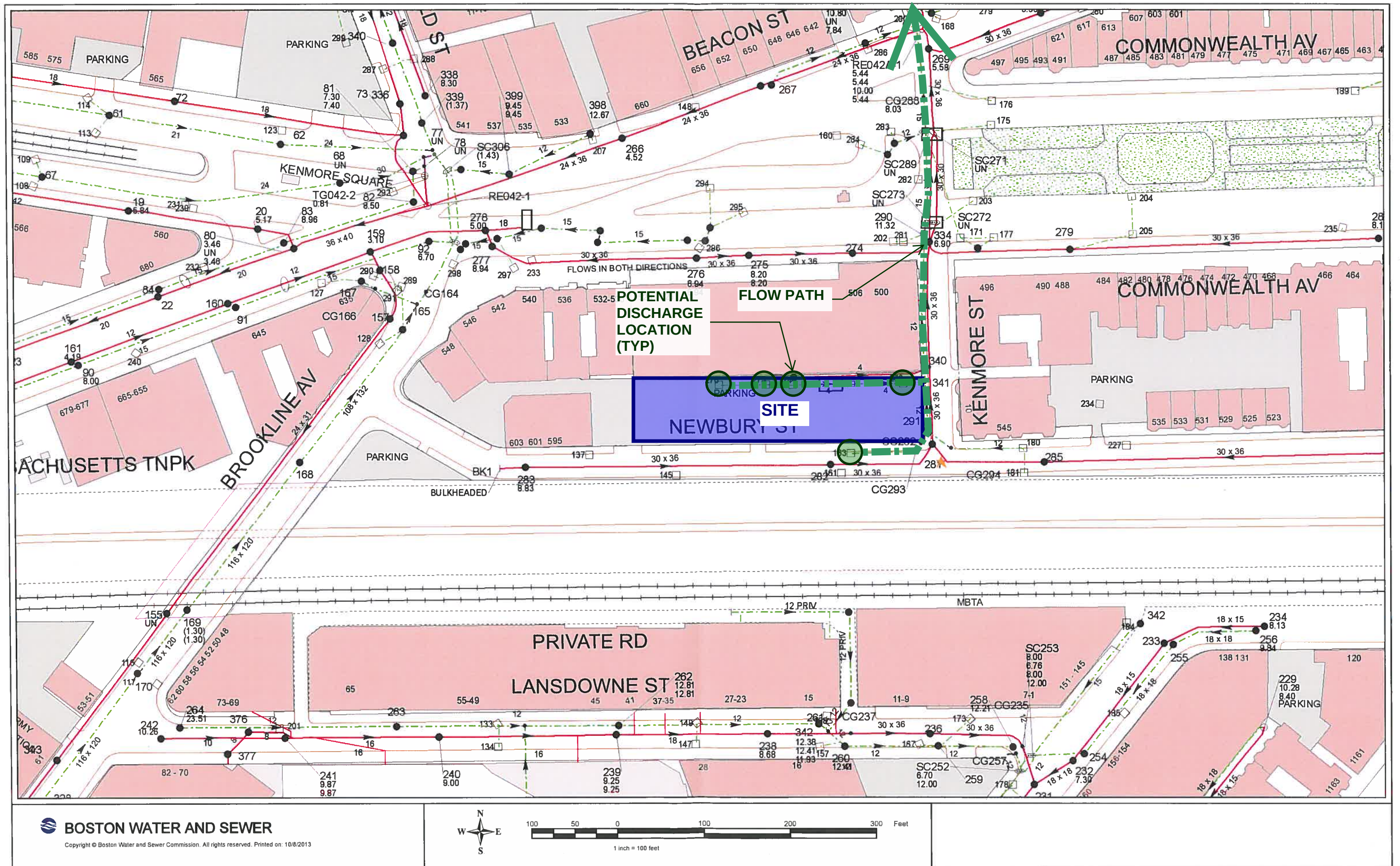
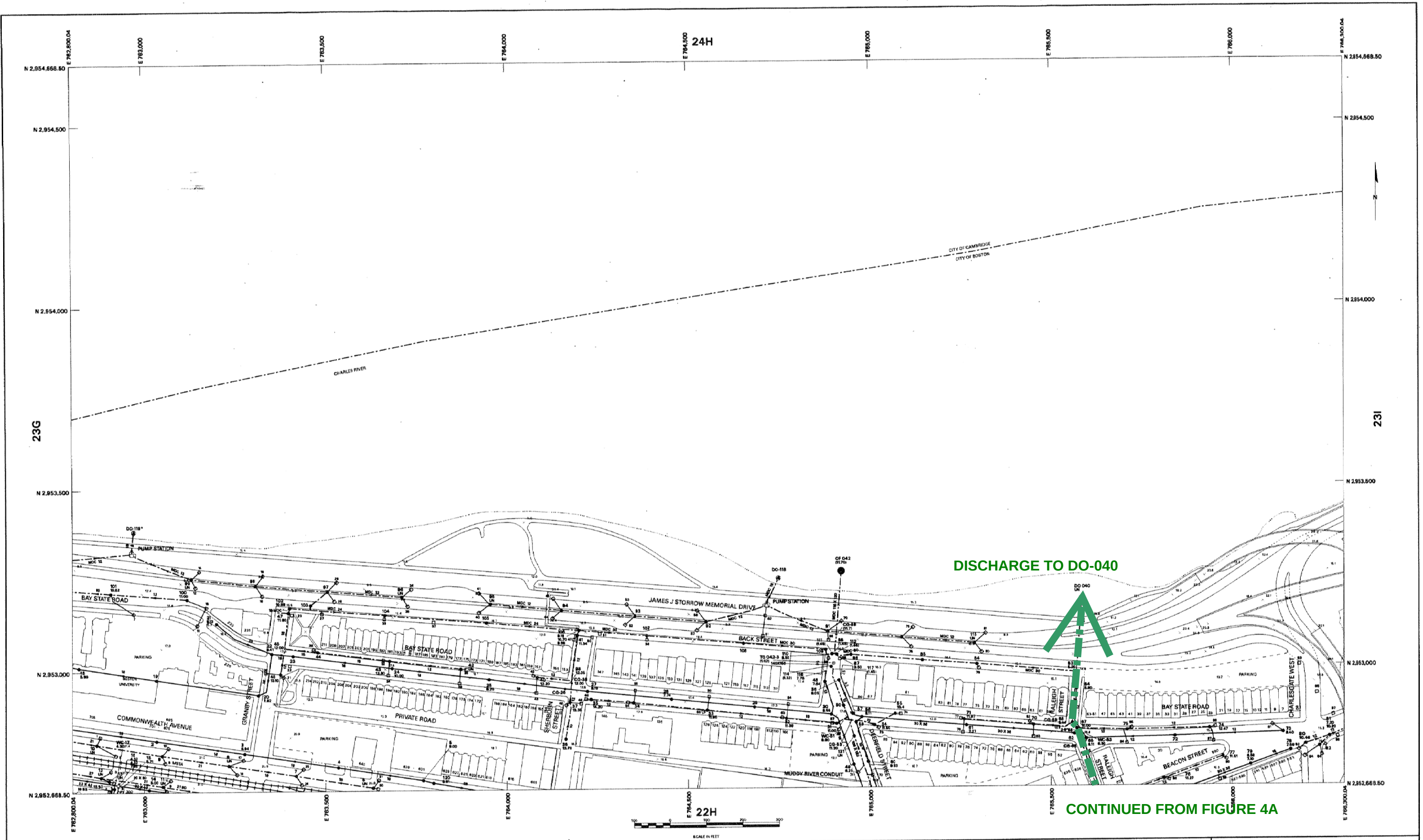


FIGURE 4A



NOTE: Spot Elevations shown are plotted in Boston City Base

500 FOOT GRID BASED ON MASSACHUSETTS
STATE PLANE COORDINATE SYSTEM, NAD 83
DATE OF PHOTOGRAPHY - MARCH 30, APRIL 1 & 17, 1995
VERTICAL DATUM BASED ON THE BOSTON CITY BASE
THE LANDBASE ON THIS MAP WAS COMPILED TO MEET THE ASPRS
STANDARD FOR CLASS 1 MAP ACCURACY

Date Produced
December 29, 1999



BOSTON WATER AND SEWER COMMISSION

SEWER SYSTEM MAP

FENWAY/KENMORE
BACK BAY/BEACON HILL

SHEET NO.

23H

FIGURE 4B

Appendix A
“Suggested Notice of Intent” (NOI) form for Remediation General Permit (RGP)

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

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

a) Name of facility/site :		Facility/site mailing address:	
Location of facility/site : longitude: _____ latitude: _____	Facility SIC code(s):	Street:	
b) Name of facility/site owner :		Town:	
Email address of facility/site owner:	State:	Zip:	County:
Telephone no. of facility/site owner :			
Fax no. of facility/site owner :	Owner is (check one): 1. Federal____ 2. State/Tribal____ 3. Private____ 4. Other ____ if so, describe:		
Address of owner (if different from site):			
Street:			
Town:	State:	Zip:	County:
c) Legal name of operator :	Operator telephone no:		
	Operator fax no.:		Operator email:
Operator contact name and title:			
Address of operator (if different from owner):	Street:		
Town:	State:	Zip:	County:

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) ____
---------------------------------------	---

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:	
b) Provide the following information about each discharge:	
1) Number of discharge points:	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft ³ /s)? Max. flow _____ Is maximum flow a design value ? Y ____ N ____ Average flow (include units) _____ Is average flow a design value or estimate? _____
3) Latitude and longitude of each discharge within 100 feet: pt.1: lat. _____ long. _____; pt.2: lat. _____ long. _____; pt.3: lat. _____ long. _____; pt.4: lat. _____ long. _____; pt.5: lat. _____ long. _____; pt.6: lat. _____ long. _____; pt.7: lat. _____ long. _____; pt.8: lat. _____ long. _____; etc.	
4) If hydrostatic testing, total volume of the discharge (gals): _____	5) Is the discharge intermittent ____ or seasonal ____? Is discharge ongoing? Y ____ N ____
c) Expected dates of discharge (mm/dd/yy): start _____ end _____	
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).	

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)											
2. Total Residual Chlorine (TRC)											
3. Total Petroleum Hydrocarbons (TPH)											
4. Cyanide (CN)	57125										
5. Benzene (B)	71432										
6. Toluene (T)	108883										
7. Ethylbenzene (E)	100414										
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207										
9. Total BTEX ²	n/a										
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) ³	106934										
11. Methyl-tert-Butyl Ether (MtBE)	1634044										
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650										

* 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										
14. Naphthalene	91203										
15. Carbon Tetrachloride	56235										
16. 1,2 Dichlorobenzene (o-DCB)	95501										
17. 1,3 Dichlorobenzene (m-DCB)	541731										
18. 1,4 Dichlorobenzene (p-DCB)	106467										
18a. Total dichlorobenzene											
19. 1,1 Dichloroethane (DCA)	75343										
20. 1,2 Dichloroethane (DCA)	107062										
21. 1,1 Dichloroethene (DCE)	75354										
22. cis-1,2 Dichloroethene (DCE)	156592										
23. Methylene Chloride	75092										
24. Tetrachloroethene (PCE)	127184										
25. 1,1,1 Trichloro-ethane (TCA)	71556										
26. 1,1,2 Trichloro-ethane (TCA)	79005										
27. Trichloroethene (TCE)	79016										

<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										
29. Acetone	67641										
30. 1,4 Dioxane	123911										
31. Total Phenols	108952										
32. Pentachlorophenol (PCP)	87865										
33. Total Phthalates (Phthalate esters) ⁴											
34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl) Phthalate]	117817										
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)											
a. Benzo(a) Anthracene	56553										
b. Benzo(a) Pyrene	50328										
c. Benzo(b)Fluoranthene	205992										
d. Benzo(k)Fluoranthene	207089										
e. Chrysene	21801										
f. Dibenzo(a,h)anthracene	53703										
g. Indeno(1,2,3-cd) Pyrene	193395										
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)											

⁴The 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										
i. Acenaphthylene	208968										
j. Anthracene	120127										
k. Benzo(ghi) Perylene	191242										
l. Fluoranthene	206440										
m. Fluorene	86737										
n. Naphthalene	91203										
o. Phenanthrene	85018										
p. Pyrene	129000										
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.										
38. Chloride	16887006										
39. Antimony	7440360										
40. Arsenic	7440382										
41. Cadmium	7440439										
42. Chromium III (trivalent)	16065831										
43. Chromium VI (hexavalent)	18540299										
44. Copper	7440508										
45. Lead	7439921										
46. Mercury	7439976										
47. Nickel	7440020										
48. Selenium	7782492										
49. Silver	7440224										
50. Zinc	7440666										
51. Iron	7439896										
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?
<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? Metal:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ Metal:_____DF:_____ 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:

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:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
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:					
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.					
d) Provide the state water quality classification of the receiving water _____					
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ cfs Please attach any calculation sheets used to support stream flow and dilution calculations.					
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Y____ N____ If yes, for which pollutant(s)? _____					
Is there a final TMDL? Y____ N____ If yes, for which pollutant(s)? _____					

6. ESA and NHPA Eligibility.

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

- a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?
A ____ B ____ C ____ D ____ E ____ F ____
- b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ____ N ____ Underway ____
- c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is “not likely to adversely affect” listed species or critical habitat received? Y ____ N ____
- d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.
- e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?
1 ____ 2 ____ 3 ____
- f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

7. Supplemental information.

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

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:	Hotel Commonwealth Expansion Project
Operator signature:	
Printed Name & Title:	Michael Peterson, Design Phase Manager
Date:	2-13-2014

Owner Signature: 

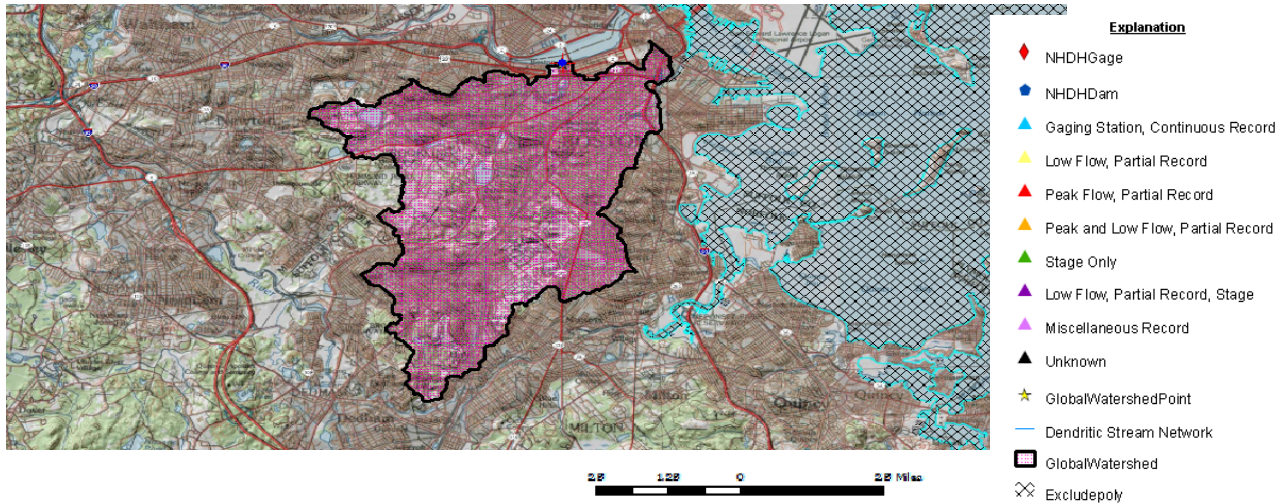
Printed Name & Title: JASON BLACK, DIRECTOR

Date: 2/20/14



StreamStats Print Page

500 Commonwealth Avenue



1/2/2014 2:18:17 PM



Massachusetts StreamStats

Streamstats Ungaged Site Report

Date: Thu Jan 2 2014 14:19:40 Mountain Standard Time

Site Location: Massachusetts

NAD27 Latitude: 42.3516 (42 21 06)

NAD27 Longitude: -71.0934 (-71 05 36)

NAD83 Latitude: 42.3517 (42 21 06)

NAD83 Longitude: -71.0929 (-71 05 34)

ReachCode: 01090001000111

Measure: 18.59

Drainage Area: 23.9 mi²

Percent Urban: 88.4 %

Percent Impervious: 49.9 %

Low Flows Basin Characteristics			
100 % Statewide Low Flow (23.9 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	23.9	1.61	149
Mean Basin Slope from 250K DEM (percent)	2.52	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	1.81 (above max value 1.29)	0	1.29
Massachusetts Region (dimensionless)	0	0	1

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

Probability of Perennial Flow Basin Characteristics			
100 % Perennial Flow Probability (23.9 mi ²)			
Parameter	Value	Regression Equation Valid Range	
		Min	Max
Drainage Area (square miles)	23.9 (above max value 1.99)	0.01	1.99
Percent Underlain By Sand And Gravel (percent)	32.27	0	100
Percent Forest (percent)	9.04	0	100
Massachusetts Region (dimensionless)	0	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	24.3				
D60	23.1				
D70	22.8				
D75	20.7				
D80	27.4				
D85	23.1				
D90	27.6				
D95	17.4				
D98	11.9				
D99	9.53				
M7D2Y	14				
AUGD50	24.5				
M7D10Y	11.3				

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	1	

Calculations

File No. 39876-041
Sheet 1 of 1
Date 01/02/14
Computed By LSV
Checked By -

Client _____

Project HOTEL COMMUNITY HEALTH

Subject NPDES - PERMIT

DILUTION FACTOR CALCULATION

$$DF = \frac{(Q_D + Q_r)}{Q_D}, \text{ WHERE}$$

 Q_D = MAX DISCHARGE RATE IN CFS Q_r = RECEIVING WATER 7Q10 FLOW = ANNUAL MINIMUM FLOW FOR 7 CONSECUTIVE DAYS WITH A RECURRENCE INTERVAL OF 10 YEARS

$$Q_D = 80 \text{ GPM (ASSUMED)} = 0.178 \text{ F}^3/\text{SEC}$$

$$Q_r = 11.3 \text{ F}^3/\text{SEC}$$

→ OBTAINED FROM <http://MA.WATER.USGS.GOV//STREAMSTATS>

$$DF = \frac{0.178 \text{ CFS} + 11.3 \text{ CFS}}{0.178 \text{ CFS}} = 64.57$$

REFER TO APPENDIX IV OF THE RSP → FOR $DF > 50$ -100 METAL EFFLUENT LIMIT
FOR IRON IS 5000 PPB

→ NOTE THAT THIS IS GREATER THAN THE 1100 PPB CONCENTRATION
DETECTED IN THE RECENT DEWATERING SAMPLE

Appendix B
Best Management Practices Plan (BMPP)

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
REMEDATION GENERAL PERMIT (RGP)
TEMPORARY CONSTRUCTION DEWATERING
HOTEL COMMONWEALTH EXPANSION – 500 COMMONWEALTH AVENUE
BOSTON, MASSACHUSETTS**

Appendix B - Best Management Practices Plan

A Notice of Intent for a Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES) has been submitted to the US Environmental Protection Agency (EPA) in anticipation of temporary construction site dewatering planned to occur during the proposed below-grade construction of a new seven-story hotel building at 500 Commonwealth Avenue in Boston, Massachusetts. This Best Management Practices Plan (BMPP) has been prepared as an Appendix to the RGP and will be posted at the site during the time period that temporary construction dewatering is occurring at the site.

Water Treatment and Management

Construction dewatering will be conducted from sumps or temporary dewatering wells located within the excavation limits. The treatment system will be designed by the contractor. Prior to discharge, collected water will be routed through a sedimentation tank with an oil/water separator component with bag filter, at a minimum, to remove suspended solids and undissolved chemical constituents. Discharge of construction dewatering effluent under this RGP NOI will be to an existing 12-inch storm drain located near the Site either on Newbury Street or the alleyway to the north. The drain travels north along Kenmore Street and discharges into outfall DO #040 at the Charles River.

Discharge Monitoring and Compliance

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

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

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

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

**NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM
REMEDATION GENERAL PERMIT (RGP)
TEMPORARY CONSTRUCTION DEWATERING
HOTEL COMMONWEALTH EXPANSION – 500 COMMONWEALTH AVENUE
BOSTON, MASSACHUSETTS**

System Maintenance

A number of methods will be used to minimize the potential for violations for the term of this permit. Scheduled regular maintenance of the treatment system will be conducted to verify proper operation. Regular maintenance will include checking the condition of the treatment system equipment such as the fractionation tanks, filters, hoses, pumps, and flow meters. Periodic maintenance will include changing bag filters as required to meet discharge criteria. Equipment will be monitored daily for potential issues or unscheduled maintenance requirements.

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

Miscellaneous Items

Due to the nature of the excavation, erosion control and the nature of the site and surrounding infrastructure, it is not anticipated that there will be any run off into the site from other sources, as well as no run off from the site.

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

Management of Treatment System Materials

No potential sources of pollutants are anticipated during construction dewatering activities. Dewatering effluent will be pumped directly to the treatment system from the excavation with use of hoses and sumps to minimize handling. The contractor will establish staging areas on the site for any equipment or materials storage which may be possible sources of pollution away from any dewatering activities.

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

Appendix C
National Register of Historic Places and Massachusetts Historical Commission
Documentation

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Fenway - Kenmore; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year
BOS.IO	Olmsted Park System		Boston	

Appendix D
Endangered Species Act Documentation



United States Department of the Interior



FISH AND WILDLIFE SERVICE

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

January 7, 2013

To Whom It May Concern:

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

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

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

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

Sincerely yours,

Thomas R. Chapman
Supervisor
New England Field Office

MASSACHUSETTS AREAS OF CRITICAL ENVIRONMENTAL CONCERN

November 2010

Total Approximate Acreage: 268,000 acres

Approximate acreage and designation date follow ACEC names below.

Bourne Back River

(1,850 acres, 1989) Bourne

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

Cedar Swamp

(1,650 acres, 1975) Hopkinton and Westborough

Central Nashua River Valley

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

Cranberry Brook Watershed

(1,050 acres, 1983) Braintree and Holbrook

Ellisville Harbor

(600 acres, 1980) Plymouth

Fowl Meadow and Ponkapoag Bog

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

Golden Hills

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

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

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

Herring River Watershed

(4,450 acres, 1991) Bourne and Plymouth

Hinsdale Flats Watershed

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

Hockomock Swamp

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

Inner Cape Cod Bay

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

Kampoosa Bog Drainage Basin

(1,350 acres, 1995) Lee and Stockbridge

Karner Brook Watershed

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

Miscoe, Warren, and Whitehall Watersheds

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

Neponset River Estuary

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

Petapawag

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

Pleasant Bay

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

Pocasset River

(160 acres, 1980) Bourne

Rumney Marshes

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

Sandy Neck Barrier Beach System

(9,130 acres, 1978) Barnstable and Sandwich

Schenob Brook Drainage Basin

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

Squannassit

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

Three Mile River Watershed

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

Upper Housatonic River

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

Waquoit Bay

(2,580 acres, 1979) Falmouth and Mashpee

Weir River

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

Wellfleet Harbor

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

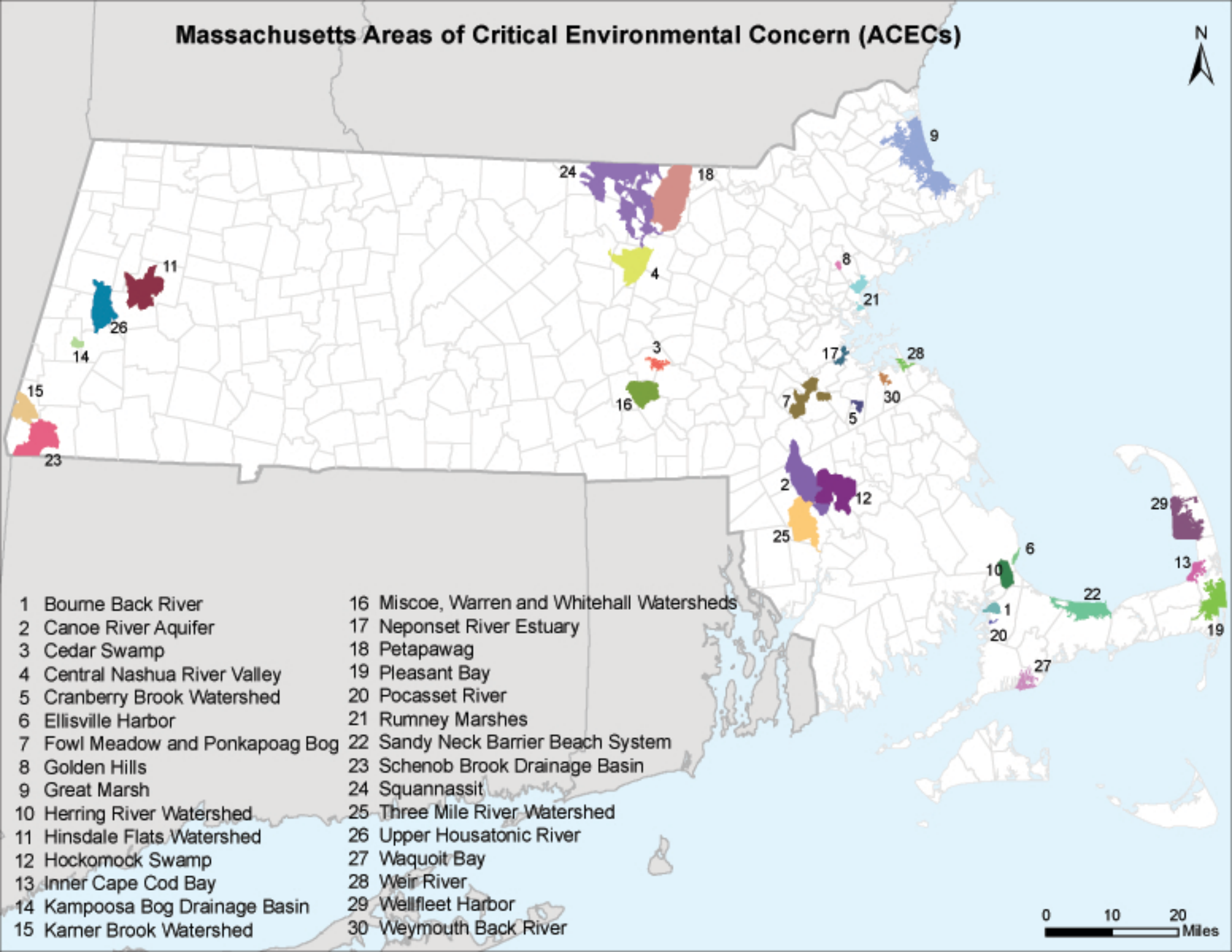
Weymouth Back River

(800 acres, 1982) Hingham and Weymouth

Towns with ACECs within their Boundaries**November 2010**

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

Massachusetts Areas of Critical Environmental Concern (ACECs)



0 10 20 Miles

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

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

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

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

Revised 06/22/2009

MassDEP - Bureau of Waste Site Cleanup

Site Information: MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

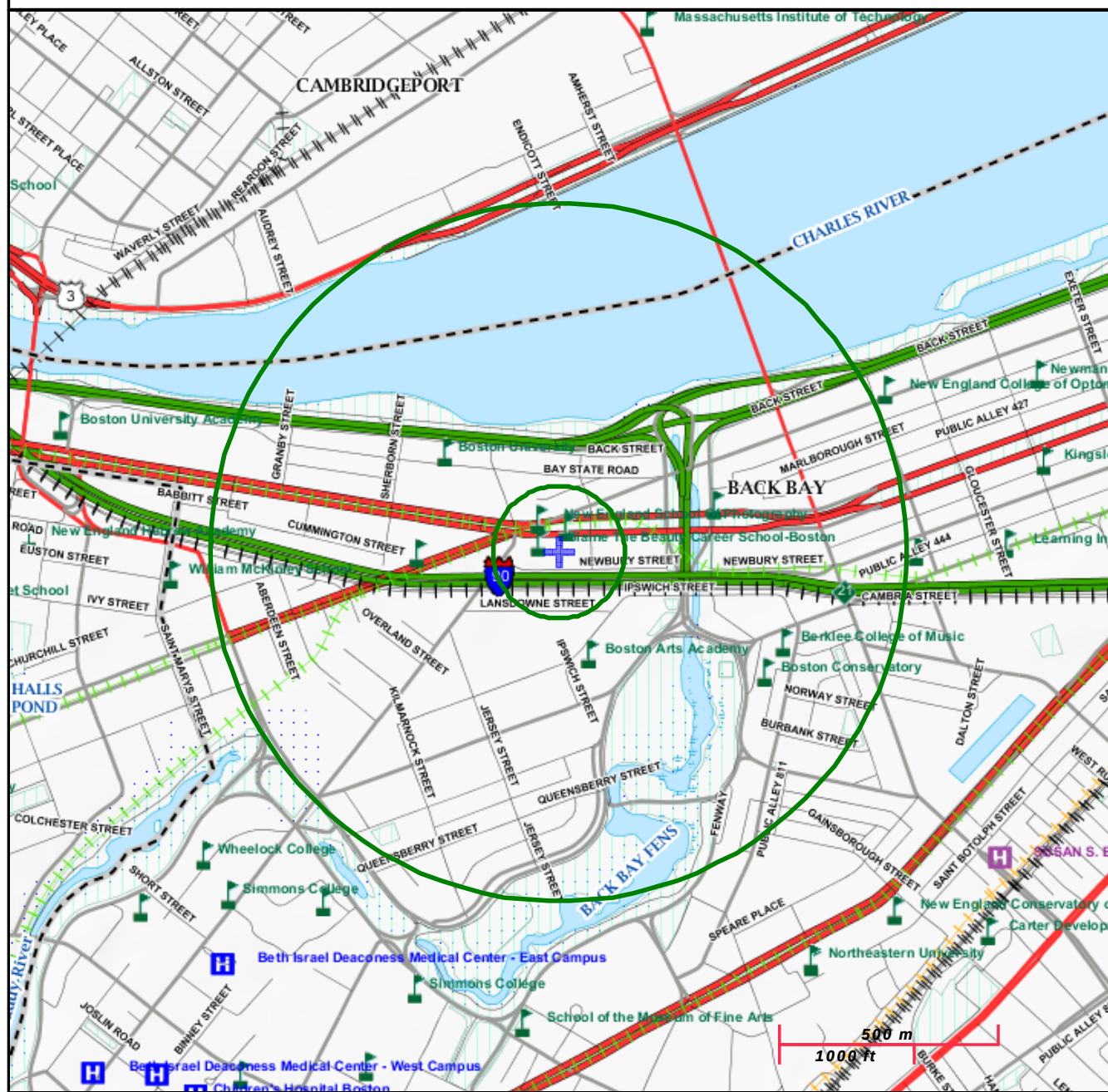
500 COMMONWEALTH AVENUE
500 COMMONWEALTH AVENUE BOSTON, MA

NAD83 UTM Meters:
4690585mN, 327375mE (Zone: 19)
January 2, 2014

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



MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



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

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

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

Aquifers: Medium Yield, High Yield, EPA Sole Source.....

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

PWS Protection Areas: Zone II, IWPA, Zone A

Hydrography: Open Water, PWS Reservoir, Tidal Flat

Wetlands: Freshwater, Saltwater, Cranberry Bog

FEMA 100yr Floodplain; Protected Open Space; ACEC

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

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

The Official Website of the Department of Fish and Game (DFG)

Department of Fish and Game

Commissioner Mary B. Griffin

[DFG Home](#) [Mass.Gov Home](#) [State Agencies](#) [State Online Services](#)



MassWildlife

Massachusetts Division of Fisheries & Wildlife

Wayne F. MacCallum, Director



Natural Heritage & Endangered Species

Home Recreation Wildlife Fisheries Natural Heritage Habitat Education



Rare Species by Town

MESA (Massachusetts Endangered Species Act) and Federal Status

Quick Links

- » [Town Index](#)
- » [MESA List](#)
- » [Contact Us](#)

E = Endangered T = Threatened SC = Special Concern

Most Recent Observation

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

Click on a town below to view MESA-listed species for that town. To print the species for a particular town, highlight the species using your mouse, go to Print under the File Menu, click on 'Selection' under 'Print Range' and click OK.

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

These data were extracted from the database of the Natural Heritage and Endangered Species Program in September 2009.

[Barnstable](#) | [Barre](#) | [Becket](#) | [Bedford](#) | [Belchertown](#) | [Bellingham](#) | [Belmont](#) | [Berkley](#) | [Berlin](#) | [Bernardston](#) | [Beverly](#) | [Billerica](#) | [Blackstone](#) | [Blandford](#) | [Bolton](#) | [Boston](#) | [Bourne](#) | [Boxborough](#) | [Boxford](#) | [Boylston](#) | [Braintree](#) | [Brewster](#) | [Bridgewater](#) | [Brimfield](#) | [Brockton](#) | [Brookfield](#) | [Brookline](#) | [Buckland](#) | [Burlington](#)

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BARNSTABLE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		2009
BARNSTABLE	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1993
BARNSTABLE	Bird	Asio flammeus	Short-eared Owl	E		Historic
BARNSTABLE	Bird	Asio otus	Long-eared Owl	SC		1978
BARNSTABLE	Bird	Charadrius melodus	Piping Plover	T	T	2006
BARNSTABLE	Bird	Parula americana	Northern Parula	T		1989
BARNSTABLE	Bird	Sterna dougallii	Roseate Tern	E	E	2008

BARNSTABLE	Bird	<i>Sterna hirundo</i>	Common Tern	SC	2008
BARNSTABLE	Bird	<i>Sterna paradisaea</i>	Arctic Tern	SC	1901
BARNSTABLE	Bird	<i>Sternula antillarum</i>	Least Tern	SC	2007
BARNSTABLE	Butterfly/Moth	<i>Abagrotis nefascia</i>	Coastal Heathland Cutworm	SC	1982
BARNSTABLE	Butterfly/Moth	<i>Bagisara rectifascia</i>	Straight Lined Mallow Moth	SC	1951
BARNSTABLE	Butterfly/Moth	<i>Cingilia catenaria</i>	Chain Dot Geometer	SC	1954
BARNSTABLE	Butterfly/Moth	<i>Hemileuca maia</i>	Barrens Buckmoth	SC	1994
BARNSTABLE	Butterfly/Moth	<i>Itame</i> sp. 1 nr. <i>inextricata</i>	Pine Barrens Itame	SC	1968
BARNSTABLE	Butterfly/Moth	<i>Papaipema stenocelis</i>	Chain Fern Borer Moth	T	1950
BARNSTABLE	Butterfly/Moth	<i>Papaipema sulphurata</i>	Water-willow Stem Borer	T	2004
BARNSTABLE	Butterfly/Moth	<i>Pieris oleracea</i>	Mustard White	T	1949
BARNSTABLE	Butterfly/Moth	<i>Satyrion favonius</i>	Oak Hairstreak	SC	1982
BARNSTABLE	Butterfly/Moth	<i>Zale</i> sp. 1 nr. <i>lunifera</i>	Pine Barrens Zale	SC	1951
BARNSTABLE	Crustacean	<i>Eulimnadia agassizii</i>	Agassiz's Clam Shrimp	E	2009
BARNSTABLE	Dragonfly/Damselfly	<i>Anax longipes</i>	Comet Darner	SC	2004
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma carunculatum</i>	Tule Bluet	SC	1941
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma laterale</i>	New England Bluet	SC	1989
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma pictum</i>	Scarlet Bluet	T	2005
BARNSTABLE	Dragonfly/Damselfly	<i>Enallagma recurvatum</i>	Pine Barrens Bluet	T	2004
BARNSTABLE	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC	1993
BARNSTABLE	Mussel	<i>Alasmodonta undulata</i>	Triangle Floater	SC	2007
BARNSTABLE	Mussel	<i>Leptodea ochracea</i>	Tidewater Mucket	SC	2007
BARNSTABLE	Mussel	<i>Ligumia nasuta</i>	Eastern Pondmussel	SC	2007
BARNSTABLE	Reptile	<i>Malaclemys terrapin</i>	Diamond- backed Terrapin	T	2007
BARNSTABLE	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC	2007
BARNSTABLE	Snail	<i>Ferrissia walkeri</i>	Walker's Limpet	SC	2006
BARNSTABLE	Vascular Plant	<i>Amelanchier nantucketensis</i>	Nantucket Shadbush	SC	1993
BARNSTABLE	Vascular Plant	<i>Aristida purpurascens</i>	Purple Needlegrass	T	1916
BARNSTABLE	Vascular Plant	<i>Carex mitchelliana</i>	Mitchell's Sedge	T	1988
BARNSTABLE	Vascular Plant	<i>Corema conradii</i>	Broom Crowberry	SC	1916
BARNSTABLE	Vascular Plant	<i>Crocianthemum dumosum</i>	Bushy Rockrose	SC	1999

BARNSTABLE	Vascular Plant	Dichanthelium ovale ssp. pseudopubescens	Commons's Panic-grass	SC	1986
BARNSTABLE	Vascular Plant	Dichanthelium wrightianum	Wright's Panic-grass	SC	2004
BARNSTABLE	Vascular Plant	Lachnanthes carolina	Redroot	SC	2004
BARNSTABLE	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	2006
BARNSTABLE	Vascular Plant	Linum intercursum	Sandplain Flax	SC	1989
BARNSTABLE	Vascular Plant	Linum medium var. texanum	Rigid Flax	T	1983
BARNSTABLE	Vascular Plant	Lipocarpha micrantha	Dwarf Bulrush	T	1898
BARNSTABLE	Vascular Plant	Listera cordata	Heartleaf Twayblade	E	1916
BARNSTABLE	Vascular Plant	Malaxis bayardii	Bayard's Green Adder's-mouth	E	1989
BARNSTABLE	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1960s
BARNSTABLE	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC	1989
BARNSTABLE	Vascular Plant	Polygonum puritanorum	Pondshore Knotweed	SC	2003
BARNSTABLE	Vascular Plant	Rhexia mariana	Maryland Meadow Beauty	E	1967
BARNSTABLE	Vascular Plant	Rhynchospora nitens	Short-beaked Bald-sedge	T	2002
BARNSTABLE	Vascular Plant	Rhynchospora scirpoides	Long-beaked Bald-sedge	SC	1995
BARNSTABLE	Vascular Plant	Rhynchospora torreyana	Torrey's Beak-sedge	E	2007
BARNSTABLE	Vascular Plant	Sabatia campanulata	Slender Marsh Pink	E	2008
BARNSTABLE	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC	2008
BARNSTABLE	Vascular Plant	Sagittaria teres	Terete Arrowhead	SC	2004
BARNSTABLE	Vascular Plant	Scleria pauciflora	Papillose Nut Sedge	E	1986
BARNSTABLE	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC	1919
BARNSTABLE	Vascular Plant	Sphenopholis pensylvanica	Swamp Oats	T	1988
BARNSTABLE	Vascular Plant	Spiranthes vernalis	Grass-leaved Ladies'-tresses	T	1986
BARNSTABLE	Vascular Plant	Tipularia discolor	Crane-fly Orchid	E	1983
BARNSTABLE	Vascular Plant	Utricularia subulata	Subulate Bladderwort	SC	1918

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BARRE	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		2007

BARRE	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E	1930
BARRE	Bird	<i>Ixobrychus exilis</i>	Least Bittern	E	2005
BARRE	Butterfly/Moth	<i>Psectraglaea carnosus</i>	Pink Sallow	SC	2007
BARRE	Dragonfly/Damselfly	<i>Neurocordulia yamaskanensis</i>	Stygian Shadowdragon	SC	2004
BARRE	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC	2005
BARRE	Mussel	<i>Alasmodonta undulata</i>	Triangle Floater	SC	1999
BARRE	Mussel	<i>Strophitus undulatus</i>	Creeper	SC	1999
BARRE	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC	2006
BARRE	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC	2005
BARRE	Vascular Plant	<i>Asclepias purpurascens</i>	Purple Milkweed	E	1865
BARRE	Vascular Plant	<i>Clematis occidentalis</i>	Purple Clematis	SC	2008
BARRE	Vascular Plant	<i>Liatris scariosa</i> var. <i>novae-angliae</i>	New England Blazing Star	SC	1950
BARRE	Vascular Plant	<i>Ophioglossum pusillum</i>	Adder's-tongue Fern	T	1870
BARRE	Vascular Plant	<i>Viola adunca</i>	Sand Violet	SC	2006

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BECKET	Bird	<i>Botaurus lentiginosus</i>	American Bittern	E		1991
BECKET	Butterfly/Moth	<i>Erora laeta</i>	Early Hairstreak	T		2005
BECKET	Dragonfly/Damselfly	<i>Boyeria grafiana</i>	Ocellated Darner	SC		2004
BECKET	Dragonfly/Damselfly	<i>Somatochlora forcipata</i>	Forcinate Emerald	SC		1973
BECKET	Fish	<i>Catostomus catostomus</i>	Longnose Sucker	SC		1979
BECKET	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1994
BECKET	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		2006
BECKET	Vascular Plant	<i>Arceuthobium pusillum</i>	Dwarf Mistletoe	SC		1904
BECKET	Vascular Plant	<i>Carex livida</i>	Glaucous Sedge	E		Historic
BECKET	Vascular Plant	<i>Carex pauciflora</i>	Few-flowered Sedge	E		Historic
BECKET	Vascular Plant	<i>Lygodium palmatum</i>	Climbing Fern	SC		Historic
BECKET	Vascular Plant	<i>Sisyrinchium mucronatum</i>	Slender Blue-eyed Grass	E		2001

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BEDFORD	Amphibian	<i>Ambystoma laterale</i>	Blue-spotted Salamander	SC		2009
BEDFORD	Bird	<i>Accipiter striatus</i>	Sharp-shinned Hawk	SC		1902
BEDFORD	Bird	<i>Bartramia longicauda</i>	Upland Sandpiper	E		2000
BEDFORD	Fish	<i>Notropis bifrenatus</i>	Bridle Shiner	SC		1998
BEDFORD	Reptile	<i>Emydoidea blandingii</i>	Blanding's Turtle	T		2008
BEDFORD	Reptile	<i>Glyptemys insculpta</i>	Wood Turtle	SC		1995
BEDFORD	Reptile	<i>Terrapene carolina</i>	Eastern Box Turtle	SC		2004
BEDFORD	Vascular Plant	<i>Aristida purpurascens</i>	Purple Needlegrass	T		1884

BEDFORD	Vascular Plant	Bolboschoenus fluvialis	River Bulrush	SC	2002
BEDFORD	Vascular Plant	Carex oligosperma	Few-fruited Sedge	E	2007
BEDFORD	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E	1882
BEDFORD	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	1899
BEDFORD	Vascular Plant	Ludwigia sphaerocarpa	Round-fruited False-loosestrife	E	1885
BEDFORD	Vascular Plant	Nabalus serpentarius	Lion's Foot	E	1883
BEDFORD	Vascular Plant	Nuphar microphylla	Tiny Cow-lily	E	1883
BEDFORD	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1900
BEDFORD	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T	1888
BEDFORD	Vascular Plant	Scirpus longii	Long's Bulrush	T	2007
BEDFORD	Vascular Plant	Senna hebecarpa	Wild Senna	E	1883
BEDFORD	Vascular Plant	Viola brittoniana	Britton's Violet	T	2007

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BELCHERTOWN	Amphibian	Ambystoma opacum	Marbled Salamander	T		2006
BELCHERTOWN	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1941
BELCHERTOWN	Bird	Botaurus lentiginosus	American Bittern	E		2008
BELCHERTOWN	Bird	Gallinula chloropus	Common Moorhen	SC		1932
BELCHERTOWN	Bird	Haliaeetus leucocephalus	Bald Eagle	E		2008
BELCHERTOWN	Bird	Ixobrychus exilis	Least Bittern	E		2007
BELCHERTOWN	Bird	Podilymbus podiceps	Pied-billed Grebe	E		1932
BELCHERTOWN	Bird	Tyto alba	Barn Owl	SC		1951
BELCHERTOWN	Crustacean	Eubrychius intricatus	Intricate Fairy Shrimp	SC		1970s
BELCHERTOWN	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2008
BELCHERTOWN	Fish	Notropis bifrenatus	Bridle Shiner	SC		1998
BELCHERTOWN	Mammal	Synaptomys cooperi	Southern Bog Lemming	SC		1974
BELCHERTOWN	Reptile	Glyptemys insculpta	Wood Turtle	SC		2007
BELCHERTOWN	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2006
BELCHERTOWN	Vascular Plant	Acer nigrum	Black Maple	SC		1891
BELCHERTOWN	Vascular Plant	Asclepias purpurascens	Purple Milkweed	E		1875
BELCHERTOWN	Vascular Plant	Blephilia ciliata	Downy Wood-mint	E		1891
BELCHERTOWN	Vascular Plant	Lygodium palmatum	Climbing Fern	SC		2000

BELCHERTOWN	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1883
BELCHERTOWN	Vascular Plant	Podostemum ceratophyllum	Threadfoot	SC	1925
BELCHERTOWN	Vascular Plant	Ranunculus pensylvanicus	Bristly Buttercup	SC	1871
BELCHERTOWN	Vascular Plant	Scheuchzeria palustris	Pod-grass	E	1872
BELCHERTOWN	Vascular Plant	Utricularia resupinata	Resupinate Bladderwort	T	1873

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BELLINGHAM	Amphibian	Ambystoma opacum	Marbled Salamander	T		2007
BELLINGHAM	Fish	Lampetra appendix	American Brook Lamprey	T		2001
BELLINGHAM	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1894
BELLINGHAM	Vascular Plant	Goodyera repens	Dwarf Rattlesnake-plantain	E		1886
BELLINGHAM	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC		1986

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BELMONT	Amphibian	Ambystoma jeffersonianum	Jefferson Salamander	SC		1800s
BELMONT	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		Historic
BELMONT	Bird	Tyto alba	Barn Owl	SC		1952
BELMONT	Bird	Gallinula chloropus	Common Moorhen	SC		Historic
BELMONT	Bird	Cistothorus platensis	Sedge Wren	E		1868
BELMONT	Dragonfly/Damselfly	Somatochlora linearis	Mocha Emerald	SC		2005
BELMONT	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1852
BELMONT	Vascular Plant	Carex gracilescens	Slender Woodland Sedge	E		1932

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BERKLEY	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		1913
BERKLEY	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1912
BERKLEY	Reptile	Glyptemys insculpta	Wood Turtle	SC		1991
BERKLEY	Reptile	Malaclemys terrapin	Diamond-backed Terrapin	T		1982
BERKLEY	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2007
BERKLEY	Vascular Plant	Bidens eatonii	Eaton's Beggar-ticks	E		1923

BERKLEY	Vascular Plant	Cardamine longii	Long's Bitter-cress	E	1997
BERKLEY	Vascular Plant	Carex polymorpha	Variable Sedge	E	1908

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BERLIN	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1800s
BERLIN	Amphibian	Ambystoma opacum	Marbled Salamander	T		2000
BERLIN	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1936
BERLIN	Bird	Ammodramus henslowii	Henslow's Sparrow	E		Historic
BERLIN	Mussel	Alasmidonta varicosa	Brook Floater (Swollen Wedgemussel)	E		1859
BERLIN	Reptile	Glyptemys insculpta	Wood Turtle	SC		1993
BERLIN	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1991
BERLIN	Vascular Plant	Asclepias purpurascens	Purple Milkweed	E		1915
BERLIN	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC		1944

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BERNARDSTON	Butterfly/Moth	Erora laeta	Early Hairstreak	T		1988
BERNARDSTON	Vascular Plant	Actaea racemosa	Black Cohosh	E		1998

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BEVERLY	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1925
BEVERLY	Bird	Vermivora chrysoptera	Golden-winged Warbler	E		1987
BEVERLY	Vascular Plant	Magnolia virginiana	Sweetbay Magnolia	E		1995
BEVERLY	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1874
BEVERLY	Vascular Plant	Potamogeton vaseyi	Vasey's Pondweed	E		1878
BEVERLY	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1902

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BILLERICA	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2008
BILLERICA	Fish	Notropis bifrenatus	Bridle Shiner	SC		1961
BILLERICA	Reptile	Emydoidea blandingii	Blanding's Turtle	T		1992
BILLERICA	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		1917
BILLERICA	Vascular Plant	Ludwigia sphaerocarpa	Round-fruited False-loosestrife	E		1889
BILLERICA	Vascular Plant	Nabalus serpentarius	Lion's Foot	E		1871

BILLERICA	Vascular Plant	Nuphar microphylla	Tiny Cow-lily	E	1869
BILLERICA	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1900
BILLERICA	Vascular Plant	Viola brittoniana	Britton's Violet	T	1915

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BLACKSTONE	Fish	Lampetra appendix	American Brook Lamprey	T		2001
BLACKSTONE	Mussel	Alasmidonta undulata	Triangle Floater	SC		1999
BLACKSTONE	Mussel	Strophitus undulatus	Creeper	SC		1999

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BLANDFORD	Bird	Bartramia longicauda	Upland Sandpiper	E		Historic
BLANDFORD	Bird	Botaurus lentiginosus	American Bittern	E		2005
BLANDFORD	Bird	Circus cyaneus	Northern Harrier	T		1923
BLANDFORD	Bird	Cistothorus platensis	Sedge Wren	E		1982
BLANDFORD	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2008
BLANDFORD	Reptile	Glyptemys insculpta	Wood Turtle	SC		1995
BLANDFORD	Vascular Plant	Rhododendron maximum	Great Laurel	T		1946
BLANDFORD	Vascular Plant	Sisyrinchium mucronatum	Slender Blue-eyed Grass	E		1919

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOLTON	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2006
BOLTON	Amphibian	Ambystoma opacum	Marbled Salamander	T		2008
BOLTON	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		2007
BOLTON	Bird	Botaurus lentiginosus	American Bittern	E		1990
BOLTON	Bird	Ixobrychus exilis	Least Bittern	E		1985
BOLTON	Bird	Podilymbus podiceps	Pied-billed Grebe	E		1984
BOLTON	Bird	Rallus elegans	King Rail	T		1999
BOLTON	Reptile	Emydoidea blandingii	Blanding's Turtle	T		2009
BOLTON	Reptile	Glyptemys insculpta	Wood Turtle	SC		1999
BOLTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1989
BOLTON	Vascular Plant	Carex typhina	Cat-tail Sedge	T		1999
BOLTON	Vascular Plant	Corallorhiza odontorhiza	Autumn Coralroot	SC		2006

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOSTON	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2003
BOSTON	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		1932
BOSTON	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		1910
BOSTON	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1928
BOSTON	Beetle	Cicindela rufiventris hentzii	Hentz's Redbelly Tiger Beetle	T		1927
BOSTON	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1898
BOSTON	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1993
BOSTON	Bird	Bartramia longicauda	Upland Sandpiper	E		1993
BOSTON	Bird	Falco peregrinus	Peregrine Falcon	E		2007
BOSTON	Bird	Gavia immer	Common Loon	SC		1824
BOSTON	Bird	Pooecetes gramineus	Vesper Sparrow	T		1985
BOSTON	Bird	Sterna hirundo	Common Tern	SC		2008
BOSTON	Bird	Sternula antillarum	Least Tern	SC		2007
BOSTON	Bird	Tyto alba	Barn Owl	SC		1989
BOSTON	Bird	Vermivora chrysoptera	Golden-winged Warbler	E		Historic
BOSTON	Butterfly/Moth	Apodrepanulatrix liberaria	New Jersey Tea Inchworm	E		Historic
BOSTON	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		2001
BOSTON	Butterfly/Moth	Metarranthis apiciaria	Barrens Metarranthis Moth	E		1934
BOSTON	Butterfly/Moth	Rhodoecia aurantiago	Orange Sallow Moth	T		1988
BOSTON	Dragonfly/Damselfly	Somatochlora linearis	Mocha Emerald	SC		2009
BOSTON	Fish	Gasterosteus aculeatus	Threespine Stickleback	T		2000
BOSTON	Mussel	Alasmidonta undulata	Triangle Floater	SC		2005
BOSTON	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1841
BOSTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1939
BOSTON	Vascular Plant	Ageratina aromatica	Lesser Snakeroot	E		1896
BOSTON	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1800s
BOSTON	Vascular Plant	Aristida tuberculosa	Seabeach Needlegrass	T		1877
BOSTON	Vascular Plant	Asclepias verticillata	Linear-leaved Milkweed	T		1878
BOSTON	Vascular Plant	Boechera missouriensis	Green Rock-cress	T		1930
BOSTON	Vascular Plant	Carex striata	Walter's Sedge	E		Historic
BOSTON	Vascular Plant	Desmodium cuspidatum	Large-bracted Tick-trefoil	T		1896
BOSTON	Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		1885

BOSTON	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E	1918
BOSTON	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	1933
BOSTON	Vascular Plant	Linum medium var. texanum	Rigid Flax	T	1909
BOSTON	Vascular Plant	Lycopus rubellus	Gypsywort	E	1896
BOSTON	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E	Historic
BOSTON	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1884
BOSTON	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T	1908
BOSTON	Vascular Plant	Ranunculus micranthus	Tiny-flowered Buttercup	E	1891
BOSTON	Vascular Plant	Rumex pallidus	Seabeach Dock	T	1984
BOSTON	Vascular Plant	Sanicula odorata	Long-styled Sanicle	T	Historic
BOSTON	Vascular Plant	Scirpus longii	Long's Bulrush	T	1907
BOSTON	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC	2001
BOSTON	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC	1909
BOSTON	Vascular Plant	Viola brittoniana	Britton's Violet	T	1909

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOURNE	Amphibian	Ambystoma opacum	Marbled Salamander	T		1936
BOURNE	Amphibian	Scaphiopus holbrookii	Eastern Spadefoot	T		2003
BOURNE	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1935
BOURNE	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		2001
BOURNE	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		2007
BOURNE	Bird	Charadrius melodus	Piping Plover	T	T	2006
BOURNE	Bird	Circus cyaneus	Northern Harrier	T		2007
BOURNE	Bird	Pooecetes gramineus	Vesper Sparrow	T		2006
BOURNE	Bird	Sterna dougallii	Roseate Tern	E	E	2008
BOURNE	Bird	Sterna hirundo	Common Tern	SC		2008
BOURNE	Bird	Sternula antillarum	Least Tern	SC		2007
BOURNE	Bird	Tyto alba	Barn Owl	SC		1974
BOURNE	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		1996
BOURNE	Butterfly/Moth	Acronicta albarufa	Barrens Daggermoth	T		1998
BOURNE	Butterfly/Moth	Bagisara rectifascia	Straight Lined Mallow Moth	SC		1998
BOURNE	Butterfly/Moth	Catocala herodias gerhardi	Gerhard's Underwing Moth	SC		1999
BOURNE	Butterfly/Moth	Cicinnus melsheimeri	Melsheimer's Sack Bearer	T		1998
BOURNE	Butterfly/Moth	Cingilia catenaria	Chain Dot Geometer	SC		2006
BOURNE	Butterfly/Moth	Hemileuca maia	Barrens Buckmoth	SC		2006
BOURNE	Butterfly/Moth	Itame sp. 1 nr. inextricata	Pine Barrens Itame	SC		1998

BOURNE	Butterfly/Moth	Metarranthis pilosaria	Coastal Swamp Metarranthis Moth	SC		1998
BOURNE	Butterfly/Moth	Papaipema sulphurata	Water-willow Stem Borer	T		1994
BOURNE	Butterfly/Moth	Zale sp. 1 nr. lunifera	Pine Barrens Zale	SC		1997
BOURNE	Dragonfly/Damselfly	Anax longipes	Comet Darner	SC		2007
BOURNE	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2004
BOURNE	Dragonfly/Damselfly	Enallagma recurvatum	Pine Barrens Bluet	T		1998
BOURNE	Dragonfly/Damselfly	Rhionaeschna mutata	Spatterdock Darner	SC		2007
BOURNE	Fish	Notropis bifrenatus	Bridle Shiner	SC		1993
BOURNE	Mussel	Leptodea ochracea	Tidewater Mucket	SC		1996
BOURNE	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1997
BOURNE	Reptile	Malaclemys terrapin	Diamond-backed Terrapin	T		2004
BOURNE	Reptile	Pseudemys rubriventris pop. 1	Northern Red-bellied Cooter	E	E	2003
BOURNE	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2009
BOURNE	Vascular Plant	Aristida purpurascens	Purple Needlegrass	T		1901
BOURNE	Vascular Plant	Asclepias verticillata	Linear-leaved Milkweed	T		1915
BOURNE	Vascular Plant	Crocanthemum dumosum	Bushy Rockrose	SC		2000
BOURNE	Vascular Plant	Eleocharis ovata	Ovate Spike-sedge	E		1992
BOURNE	Vascular Plant	Hypericum adpressum	Creeping St. John's- wort	T		2007
BOURNE	Vascular Plant	Juncus debilis	Weak Rush	E		1993
BOURNE	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		2005
BOURNE	Vascular Plant	Lygodium palmatum	Climbing Fern	SC		1992
BOURNE	Vascular Plant	Malaxis bayardii	Bayard's Green Adder's-mouth	E		1919
BOURNE	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		2006
BOURNE	Vascular Plant	Polygonum glaucum	Sea-beach Knotweed	SC		1913
BOURNE	Vascular Plant	Polygonum puritanorum	Pondshore Knotweed	SC		1994
BOURNE	Vascular Plant	Rhynchospora scirpoides	Long-beaked Bald- sedge	SC		1986
BOURNE	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC		1996
BOURNE	Vascular Plant	Sagittaria teres	Terete Arrowhead	SC		1994
BOURNE	Vascular Plant	Setaria parviflora	Bristly Foxtail	SC		1913
BOURNE	Vascular Plant	Spiranthes vernalis	Grass-leaved Ladies'- tresses	T		1896
BOURNE	Vascular Plant	Suaeda calceoliformis	American Sea-blite	SC		1995
BOURNE	Vascular Plant	Triosteum perfoliatum	Broad Tinker's-weed	E		2004

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
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BOXBOROUGH	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC	2007
BOXBOROUGH	Reptile	Emydoidea blandingii	Blanding's Turtle	T	2003
BOXBOROUGH	Reptile	Glyptemys insculpta	Wood Turtle	SC	2002
BOXBOROUGH	Reptile	Terrapene carolina	Eastern Box Turtle	SC	2001

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOXFORD	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2008
BOXFORD	Amphibian	Ambystoma opacum	Marbled Salamander	T		1983
BOXFORD	Bird	Tyto alba	Barn Owl	SC		1957
BOXFORD	Fish	Notropis bifrenatus	Bridle Shiner	SC		1999
BOXFORD	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		Historic
BOXFORD	Reptile	Emydoidea blandingii	Blanding's Turtle	T		2008
BOXFORD	Reptile	Glyptemys insculpta	Wood Turtle	SC		2000
BOXFORD	Vascular Plant	Asclepias purpurascens	Purple Milkweed	E		1883
BOXFORD	Vascular Plant	Carex livida	Glaucous Sedge	E		1890
BOXFORD	Vascular Plant	Eriophorum gracile	Slender Cottongrass	T		1909
BOXFORD	Vascular Plant	Gentiana andrewsii	Andrews' Bottle Gentian	E		1881
BOXFORD	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E		1882
BOXFORD	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		2004
BOXFORD	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E		2004
BOXFORD	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1905
BOXFORD	Vascular Plant	Panicum philadelphicum ssp. philadelphicum	Philadelphia Panic-grass	SC		1953
BOXFORD	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1881
BOXFORD	Vascular Plant	Potamogeton vaseyi	Vasey's Pondweed	E		2004
BOXFORD	Vascular Plant	Senna hebecarpa	Wild Senna	E		1882
BOXFORD	Vascular Plant	Sparganium natans	Small Bur-reed	E		1997
BOXFORD	Vascular Plant	Viola adunca	Sand Violet	SC		2004

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BOYLSTON	Amphibian	Ambystoma opacum	Marbled Salamander	T		1995
BOYLSTON	Bird	Gavia immer	Common Loon	SC		2008
BOYLSTON	Bird	Haliaeetus leucocephalus	Bald Eagle	E		2009
BOYLSTON	Bird	Podilymbus podiceps	Pied-billed Grebe	E		1978
BOYLSTON	Butterfly/Moth	Rhodoecia aurantiago	Orange Sallow Moth	T		2008
BOYLSTON	Fish	Notropis bifrenatus	Bridle Shiner	SC		1951
BOYLSTON	Reptile	Glyptemys insculpta	Wood Turtle	SC		1983

BOYLSTON	Vascular Plant	Hydrophyllum canadense	Broad Waterleaf	E	1943
BOYLSTON	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	1932
BOYLSTON	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	2000

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BRAINTREE	Dragonfly/Damselfly	Anax longipes	Comet Darner	SC		1970
BRAINTREE	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		1969
BRAINTREE	Dragonfly/Damselfly	Somatochlora linearis	Mocha Emerald	SC		1989
BRAINTREE	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		2000
BRAINTREE	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1997
BRAINTREE	Vascular Plant	Asclepias purpurascens	Purple Milkweed	E		1922
BRAINTREE	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E		1886

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BREWSTER	Bird	Charadrius melodus	Piping Plover	T	T	2006
BREWSTER	Bird	Parula americana	Northern Parula	T		2006
BREWSTER	Bird	Sterna dougallii	Roseate Tern	E	E	2008
BREWSTER	Bird	Sterna hirundo	Common Tern	SC		2008
BREWSTER	Butterfly/Moth	Abagrotis nefascia	Coastal Heathland Cutworm	SC		1981
BREWSTER	Butterfly/Moth	Apamea inebriata	Drunk Apamea Moth	SC		1981
BREWSTER	Butterfly/Moth	Bagisara rectifascia	Straight Lined Mallow Moth	SC		1982
BREWSTER	Butterfly/Moth	Papaipema sulphurata	Water-willow Stem Borer	T		1994
BREWSTER	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2000
BREWSTER	Dragonfly/Damselfly	Enallagma pictum	Scarlet Bluet	T		2003
BREWSTER	Dragonfly/Damselfly	Enallagma recurvatum	Pine Barrens Bluet	T		2005
BREWSTER	Dragonfly/Damselfly	Rhionaeschna mutata	Spatterdock Darner	SC		1987
BREWSTER	Fish	Notropis bifrenatus	Bridle Shiner	SC		1961
BREWSTER	Reptile	Malaclemys terrapin	Diamond-backed Terrapin	T		2002
BREWSTER	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2008
BREWSTER	Vascular Plant	Carex mitchelliana	Mitchell's Sedge	T		2006
BREWSTER	Vascular Plant	Corema conradii	Broom Crowberry	SC		1994
BREWSTER	Vascular Plant	Crocianthemum dumosum	Bushy Rockrose	SC		2006
BREWSTER	Vascular Plant	Dichanthelium dichotomum ssp. mattamuskeetense	Mattamuskeet Panic-grass	E		1918

BREWSTER	Vascular Plant	Dichanthelium ovale ssp. pseudopubescens	Commons's Panic-grass	SC	2006
BREWSTER	Vascular Plant	Gamochaeta purpurea	Purple Cudweed	E	1924
BREWSTER	Vascular Plant	Isoetes acadensis	Acadian Quillwort	E	1989
BREWSTER	Vascular Plant	Lachnanthes caroliana	Redroot	SC	2002
BREWSTER	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC	1931
BREWSTER	Vascular Plant	Lipocarpa micrantha	Dwarf Bulrush	T	2006
BREWSTER	Vascular Plant	Mertensia maritima	Oysterleaf	E	2001
BREWSTER	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T	1992
BREWSTER	Vascular Plant	Opuntia humifusa	Prickly Pear	E	1989
BREWSTER	Vascular Plant	Polygonum puritanorum	Pondshore Knotweed	SC	2003
BREWSTER	Vascular Plant	Rhexia mariana	Maryland Meadow Beauty	E	2008
BREWSTER	Vascular Plant	Rhynchospora scirpoides	Long-beaked Bald-sedge	SC	1986
BREWSTER	Vascular Plant	Rumex pallidus	Seabeach Dock	T	1994
BREWSTER	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC	2004
BREWSTER	Vascular Plant	Sagittaria teres	Terete Arrowhead	SC	2008
BREWSTER	Vascular Plant	Spartina cynosuroides	Salt Reedgrass	T	2004
BREWSTER	Vascular Plant	Utricularia resupinata	Resupinate Bladderwort	T	2002

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BRIDGEWATER	Bird	Ammodramus savannarum	Grasshopper Sparrow	T		1997
BRIDGEWATER	Bird	Asio otus	Long-eared Owl	SC		1978
BRIDGEWATER	Bird	Bartramia longicauda	Upland Sandpiper	E		1980
BRIDGEWATER	Bird	Tyto alba	Barn Owl	SC		1981
BRIDGEWATER	Butterfly/Moth	Papaipema sulphurata	Water-willow Stem Borer	T		1994
BRIDGEWATER	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		1994
BRIDGEWATER	Dragonfly/Damselfly	Enallagma pictum	Scarlet Bluet	T		2004
BRIDGEWATER	Mussel	Alasmodonta undulata	Triangle Floater	SC		1999
BRIDGEWATER	Mussel	Leptodea ochracea	Tidewater Mucket	SC		1997
BRIDGEWATER	Mussel	Ligumia nasuta	Eastern Pondmussel	SC		1997

BRIDGEWATER	Reptile	Glyptemys insculpta	Wood Turtle	SC		2004
BRIDGEWATER	Reptile	Pseudemys rubriventris pop. 1	Northern Red-bellied Cooter	E	E	2005
BRIDGEWATER	Reptile	Terrapene carolina	Eastern Box Turtle	SC		2009
BRIDGEWATER	Vascular Plant	Ludwigia sphaerocarpa	Round-fruited False-loosestrife	E		2005
BRIDGEWATER	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1912
BRIDGEWATER	Vascular Plant	Sabatia kennedyana	Plymouth Gentian	SC		2005
BRIDGEWATER	Vascular Plant	Scirpus longii	Long's Bulrush	T		1988

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BRIMFIELD	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		2000
BRIMFIELD	Bird	Botaurus lentiginosus	American Bittern	E		1997
BRIMFIELD	Bird	Ixobrychus exilis	Least Bittern	E		2007
BRIMFIELD	Dragonfly/Damselfly	Ophiogomphus aspersus	Brook Snaketail	SC		2004
BRIMFIELD	Fish	Notropis bifrenatus	Bridle Shiner	SC		1999
BRIMFIELD	Mussel	Alasmidonta undulata	Triangle Floater	SC		1982
BRIMFIELD	Mussel	Strophitus undulatus	Creeper	SC		1982
BRIMFIELD	Reptile	Glyptemys insculpta	Wood Turtle	SC		2006
BRIMFIELD	Vascular Plant	Isoetes lacustris	Lake Quillwort	E		1930

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BROCKTON	Butterfly/Moth	Metarranthis apiciaria	Barrens Metarranthis Moth	E		1909
BROCKTON	Dragonfly/Damselfly	Enallagma laterale	New England Bluet	SC		2003
BROCKTON	Vascular Plant	Liatris scariosa var. novae-angliae	New England Blazing Star	SC		1900
BROCKTON	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1902

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BROOKFIELD	Amphibian	Ambystoma laterale	Blue-spotted Salamander	SC		1990

BROOKFIELD	Amphibian	Ambystoma opacum	Marbled Salamander	T	1996
BROOKFIELD	Bird	Bartramia longicauda	Upland Sandpiper	E	Historic
BROOKFIELD	Bird	Botaurus lentiginosus	American Bittern	E	2008
BROOKFIELD	Bird	Cistothorus platensis	Sedge Wren	E	1992
BROOKFIELD	Bird	Haliaeetus leucocephalus	Bald Eagle	E	2008
BROOKFIELD	Bird	Ixobrychus exilis	Least Bittern	E	2007
BROOKFIELD	Bird	Podilymbus podiceps	Pied-billed Grebe	E	1993
BROOKFIELD	Bird	Rallus elegans	King Rail	T	2007
BROOKFIELD	Dragonfly/Damselfly	Rhionaeschna mutata	Spatterdock Darner	SC	2003
BROOKFIELD	Fish	Notropis bifrenatus	Bridle Shiner	SC	2003
BROOKFIELD	Mussel	Alasmidonta undulata	Triangle Floater	SC	1999
BROOKFIELD	Vascular Plant	Carex polymorpha	Variable Sedge	E	2004
BROOKFIELD	Vascular Plant	Clematis occidentalis	Purple Clematis	SC	2007
BROOKFIELD	Vascular Plant	Lipocarpha micrantha	Dwarf Bulrush	T	2007
BROOKFIELD	Vascular Plant	Myriophyllum alterniflorum	Alternate-flowered Water-milfoil	E	1898
BROOKFIELD	Vascular Plant	Poa saltuensis ssp. languida	Drooping Speargrass	E	2000
BROOKFIELD	Vascular Plant	Potamogeton vaseyi	Vasey's Pondweed	E	1998
BROOKFIELD	Vascular Plant	Ranunculus pensylvanicus	Bristly Buttercup	SC	2007
BROOKFIELD	Vascular Plant	Scirpus longii	Long's Bulrush	T	2000

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BROOKLINE	Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		Historic
BROOKLINE	Beetle	Cicindela rufiventris hentzii	Hentz's Redbelly Tiger Beetle	T		Historic
BROOKLINE	Bird	Accipiter striatus	Sharp-shinned Hawk	SC		1905
BROOKLINE	Bird	Vermivora chrysoptera	Golden-winged Warbler	E		1932
BROOKLINE	Vascular Plant	Houstonia longifolia	Long-leaved Bluet	E		1897
BROOKLINE	Vascular Plant	Linum medium var. texanum	Rigid Flax	T		1903
BROOKLINE	Vascular Plant	Lipocarpha micrantha	Dwarf Bulrush	T		1902
BROOKLINE	Vascular Plant	Platanthera flava var. herbiola	Pale Green Orchis	T		1912

BROOKLINE	Vascular Plant	Viola brittoniana	Britton's Violet	T	1913
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Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BUCKLAND	Amphibian	Ambystoma jeffersonianum	Jefferson Salamander	SC		1989
BUCKLAND	Beetle	Cicindela duodecimguttata	Twelve-spotted Tiger Beetle	SC		2001
BUCKLAND	Butterfly/Moth	Erora laeta	Early Hairstreak	T		1988
BUCKLAND	Dragonfly/Damselfly	Boyeria grafiana	Ocellated Darner	SC		2004
BUCKLAND	Dragonfly/Damselfly	Gomphus abbreviatus	Spine-crowned Clubtail	E		2004
BUCKLAND	Dragonfly/Damselfly	Neurocordulia yamaskanensis	Stygian Shadowdragon	SC		2004
BUCKLAND	Dragonfly/Damselfly	Rhionaeschna mutata	Spatterdock Darner	SC		2004
BUCKLAND	Fish	Catostomus catostomus	Longnose Sucker	SC		1989
BUCKLAND	Reptile	Glyptemys insculpta	Wood Turtle	SC		2007
BUCKLAND	Vascular Plant	Alnus viridis ssp. crispa	Mountain Alder	T		2004
BUCKLAND	Vascular Plant	Amelanchier sanguinea	Roundleaf Shadbush	SC		1911
BUCKLAND	Vascular Plant	Aplectrum hyemale	Putty-root	E		1904
BUCKLAND	Vascular Plant	Corallorhiza odontorhiza	Autumn Coralroot	SC		2006
BUCKLAND	Vascular Plant	Huperzia selago	Mountain Firmoss	E		1899
BUCKLAND	Vascular Plant	Ophioglossum pusillum	Adder's-tongue Fern	T		1913
BUCKLAND	Vascular Plant	Platanthera dilatata	Leafy White Orchis	T		1932
BUCKLAND	Vascular Plant	Sanicula odorata	Long-styled Sanicle	T		1907
BUCKLAND	Vascular Plant	Symphyotrichum tradescantii	Tradescant's Aster	T		2002

Town	Taxonomic Group	Scientific Name	Common Name	MESA Status	Federal Status	Most Recent Observation
BURLINGTON	Fish	Notropis bifrenatus	Bridle Shiner	SC		1994
BURLINGTON	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1998
BURLINGTON	Vascular Plant	Carex polymorpha	Variable Sedge	E		2008
BURLINGTON	Vascular Plant	Nabalus serpentarius	Lion's Foot	E		1906

[Return to top](#)

Updated: October 27, 2009

Massachusetts Division of Fisheries and Wildlife, 1 Rabbit Hill Rd, Westborough, MA 01581
Tel: (508) 389-6300; Fax: (508) 389-7890
Natural Heritage & Endangered Species Program Tel: (508) 389-6360; Fax: (508) 389-7891

Appendix E
Boston Water and Sewer Commission Permit Application



**Boston Water and
Sewer Commission**
980 Harrison Avenue
Boston, MA 02119-2540

DEWATERING DISCHARGE PERMIT APPLICATION

OWNER / AUTHORIZED APPLICANT PROVIDE INFORMATION HERE:

Company Name: Kenmore Hotel, LLC c/o Hotel Commonwealth Address: 500 Commonwealth Avenue, Boston, MA 02215
Phone number: 617-532-5004 Fax number: _____
Contact person name: Adam Sperling Title: General Manager
Cell number: _____ Email address: asperling@hotelcommonwealth.com

Permit Request (check one): ☒ New Application ☐ Permit Extension ☐ Other (Specify): _____

Owner's Information (if different from above):

Owner of property being dewatered: _____
Owner's mailing address: _____ Phone number: _____

Location of Discharge & Proposed Treatment System(s):

Street number and name: 500 Commonwealth Avenue Neighborhood Fenway - Kenmore

Discharge is to a: ☐ Sanitary Sewer ☐ Combined Sewer ☒ Storm Drain ☐ Other (specify): _____

Describe Proposed Pre-Treatment System(s): Sedimentation Tank

BWSC Outfall No. DO-040 Receiving Waters Charles River by way of Outfall

Temporary Discharges (Provide Anticipated Dates of Discharge): From 5/1/2014 To 12/31/2014

☐ Groundwater Remediation	☐ Tank Removal/Installation	☒ Foundation Excavation
☐ Utility/Manhole Pumping	☐ Test Pipe	☒ Trench Excavation
☐ Accumulated Surface Water	☐ Hydrogeologic Testing	☐ Other _____

Permanent Discharges

☐ Foundation Drainage	☐ Crawl Space/Footing Drain
☐ Accumulated Surface Water	☐ Non-contact/Uncontaminated Cooling
☐ Non-contact/Uncontaminated Process	☐ Other; _____

1. Attach a Site Plan showing the source of the discharge and the location of the point of discharge (i.e. the sewer pipe or catch basin). Include meter type, meter number, size, make and start reading. Note. All discharges to the Commission's sewer system will be assessed current sewer charges.
2. If discharging to a sanitary or combined sewer, attach a copy of MWRA's Sewer Use Discharge permit or application.
3. If discharging to a separate storm drain, attach a copy of EPA's NPDES Permit or NOI application, or NPDES Permit exclusion letter for the discharge, as well as other relevant information.
4. Dewatering Drainage Permit will be denied or revoked if applicant fails to obtain the necessary permits from MWRA or EPA.

Submit Completed Application to: Boston Water and Sewer Commission
Engineering Customer Services
980 Harrison Avenue, Boston, MA 02119
Attn: Francis M. McLaughlin, Manager Engineering Customer Services
E-mail: MclaughlinF@bwsc.org
Phone: 617-989-7208 Fax: 617-989-7716

BWSC Use Only: Date Received _____ Comments: _____

Appendix F
MADEP Transmittal Form for Permit Application BRP WM10



Enter your transmittal number

X258896

Transmittal Number

Your unique Transmittal Number can be accessed online: <http://mass.gov/dep/service/online/trasmfrm.shtml>

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

1. Please type or print. A separate Transmittal Form must be completed for each permit application.

2. Make your check payable to the Commonwealth of Massachusetts and mail it with a copy of this form to: DEP, P.O. Box 4062, Boston, MA 02211.

3. Three copies of this form will be needed.

Copy 1 - the original must accompany your permit application. **Copy 2** must accompany your fee payment. **Copy 3** should be retained for your records

4. Both fee-paying and exempt applicants must mail a copy of this transmittal form to:

MassDEP
P.O. Box 4062
Boston, MA
02211

*** Note:**
For BWSC Permits,
enter the LSP.

A. Permit Information

BRP WM10

1. Permit Code: 7 or 8 character code from permit instructions

Temporary Construction Dewatering

3. Type of Project or Activity

EPA General Permit: Construction Dewatering

2. Name of Permit Category

B. Applicant Information – Firm or Individual

Kenmore Hotel, LLC c/o Hotel Commonwealth

1. Name of Firm - Or, if party needing this approval is an individual enter name below:

Sperling

Adam

2. Last Name of Individual

3. First Name of Individual

4. MI

500 Commonwealth Avenue

5. Street Address

Boston

MA

02215

617-532-5004

6. City/Town

7. State

8. Zip Code

9. Telephone #

10. Ext. #

Michael Peterson

michael.peterson@mortenson.com

11. Contact Person

12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Hotel Commonwealth Expansion

1. Name of Facility, Site Or Individual

500 Commonwealth Avenue

2. Street Address

Boston

MA

02215

262-879-2522

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

8. DEP Facility Number (if Known)

9. Federal I.D. Number (if Known)

10. BWSC Tracking # (if Known)

D. Application Prepared by (if different from Section B)*

Haley & Aldrich, Inc.

1. Name of Firm Or Individual

465 Medford Street, Suite 2200

2. Address

Boston

MA

02129

617-886-7400

3. City/Town

4. State

5. Zip Code

6. Telephone #

7. Ext. #

Keith E. Johnson

9789

8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

1. Is this project subject to MEPA review? ☐ yes ☒ no
If yes, enter the project's EOEA file number - assigned when an Environmental Notification Form is submitted to the MEPA unit:

EOEA File Number

F. Amount Due

Special Provisions:

1. ☐ Fee Exempt (city, town or municipal housing authority)(state agency if fee is \$100 or less).
There are no fee exemptions for BWSC permits, regardless of applicant status.
2. ☐ Hardship Request - payment extensions according to 310 CMR 4.04(3)(c).
3. ☐ Alternative Schedule Project (according to 310 CMR 4.05 and 4.10).
4. ☐ Homeowner (according to 310 CMR 4.02).

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Check Number

470

Dollar Amount

Date

Appendix G
Laboratory Data Reports for Groundwater Sampling/Testing



ANALYTICAL REPORT

Lab Number:	L1325418
Client:	Haley & Aldrich, Inc. 465 Medford Street, Suite 2200 Charlestown, MA 02129-1400
ATTN:	Lee Vanzler
Phone:	(617) 886-7561
Project Name:	HOTEL COMMONWEALTH
Project Number:	39876-041
Report Date:	12/19/13

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

Certifications & Approvals: MA (M-MA086), NY (11148), CT (PH-0574), NH (2003), NJ NELAP (MA935), RI (LAO00065), ME (MA00086), PA (68-03671), USDA (Permit #P-330-11-00240), NC (666), TX (T104704476), DOD (L2217), US Army Corps of Engineers.

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



Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1325418-01	HA13-B4-OW	Not Specified	12/13/13 11:30
L1325418-02	TRIP BLANK-1	Not Specified	12/13/13 00:00
L1325418-03	TRIP BLANK-2	Not Specified	12/13/13 00:00
L1325418-04	TRIP BLANK-3	Not Specified	12/13/13 00:00

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

Case Narrative

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

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet all of the requirements of NELAC, for all NELAC accredited parameters. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively. When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. Performance criteria for CAM and RCP methods allow for some LCS compound failures to occur and still be within method compliance. In these instances, the specific failures are not narrated but are noted in the associated QC table. This information is also incorporated in the Data Usability format for our Data Merger tool where it can be reviewed along with any associated usability implications. Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances the specific failure is not narrated but noted in the associated QC table. The information is also incorporated in the Data Usability format of our Data Merger tool where it can be reviewed along with any associated usability implications.

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

HOLD POLICY

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

Please contact Client Services at 800-624-9220 with any questions.

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

Case Narrative (continued)

Semivolatile Organics

The WG659037-2 LCS recoveries, associated with L1325418-01 (HA13-B4-OW), are above the acceptance criteria for benzo(a)anthracene (141%), benzo(b)fluoranthene (141%), benzo(k)fluoranthene (144%), and pentachlorophenol (162%); however, the associated samples are non-detect for these target compounds. The results of the original analysis are reported.

Semivolatile Organics

The WG659038-2/-3 LCS/LCSD recoveries, associated with L1325418-01 (HA13-B4-OW), are above the acceptance criteria for 1,2,4-trichlorobenzene (135%/126%), bis(2-chloroethyl)ether (LCS at 141%), 1,4-dichlorobenzene (125%/120%), 2,4-dinitrotoluene (158%/145%), 2,6-dinitrotoluene (LCS at 152%), azobenzene (LCS at 147%), 4-chlorophenyl phenyl ether (LCS at 152%), 4-bromophenyl phenyl ether (LCS at 151%), bis(2-chloroisopropyl)ether (LCS at 148%), bis(2-chloroethoxy)methane (LCS at 143%), nitrobenzene (159%/147%), nitrosodiphenylamine(NDPA)/DPA (LCS at 149%), bis(2-ethylhexyl)phthalate (164%/150%), butyl benzyl phthalate (LCS at 146%), di-n-butylphthalate (158%/146%), di-n-octylphthalate (165%/151%), diethyl phthalate (155%/146%), dimethyl phthalate (165%/152%), dibenzofuran (154%/141%), n-nitrosodimethylamine (94%/87%), 2,4,6-trichlorophenol (143%/133%), p-chloro-m-cresol (145%/137%), 2-chlorophenol (156%/146%), 2,4-dichlorophenol (154%/143%), 2-nitrophenol (145%/138%), 4-nitrophenol (100%/92%), 2,4-dinitrophenol (158%/150%), 2-methylphenol (LCS at 135%), 3-methylphenol/4-methylphenol (LCS at 131%), 2,4,5-trichlorophenol (142%/132%), benzyl alcohol (127%/120%), and carbazole (161%/147%); however, the associated samples are non-detect for these target compounds. The results of the original analysis are reported.

Metals

L1325418-01 (HA13-B4-OW) has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by matrix interferences encountered during analysis.

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

Authorized Signature:



Cynthia McQueen

Title: Technical Director/Representative

Date: 12/19/13

ORGANICS

VOLATILES

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 12/18/13 15:46
Analyst: MM

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01

Date Collected: 12/13/13 11:30

Client ID: HA13-B4-OW

Date Received: 12/13/13

Sample Location: Not Specified

Field Prep: Not Specified

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01

Date Collected: 12/13/13 11:30

Client ID: HA13-B4-OW

Date Received: 12/13/13

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	97		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	106		70-130

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 12/18/13 15:46
Analyst: MM

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified

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

1,4-Dioxane	ND		ug/l	3.0	--	1
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Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 12/17/13 20:25
Analyst: GP

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified
Extraction Date: 12/17/13 15:40

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-02
Client ID: TRIP BLANK-1
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 12/14/13 20:43
Analyst: PD

Date Collected: 12/13/13 00:00
Date Received: 12/13/13
Field Prep: Not Specified

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-02
 Client ID: TRIP BLANK-1
 Sample Location: Not Specified

Date Collected: 12/13/13 00:00
 Date Received: 12/13/13
 Field Prep: Not Specified

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-02
 Client ID: TRIP BLANK-1
 Sample Location: Not Specified

Date Collected: 12/13/13 00:00
 Date Received: 12/13/13
 Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	98		70-130

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-03
Client ID: TRIP BLANK-2
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8260C-SIM(M)
Analytical Date: 12/18/13 16:19
Analyst: MM

Date Collected: 12/13/13 00:00
Date Received: 12/13/13
Field Prep: Not Specified

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

1,4-Dioxane	ND		ug/l	3.0	--	1
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Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-04
Client ID: TRIP BLANK-3
Sample Location: Not Specified
Matrix: Water
Analytical Method: 14,504.1
Analytical Date: 12/17/13 20:41
Analyst: GP

Date Collected: 12/13/13 00:00
Date Received: 12/13/13
Field Prep: Not Specified
Extraction Date: 12/17/13 15:40

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Column
Microextractables by GC - Westborough Lab							
1,2-Dibromoethane	ND		ug/l	0.011	--	1	A

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/14/13 16:05
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG659093-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--
1,4-Dichlorobenzene	ND		ug/l	2.5	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/14/13 16:05
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG659093-3					
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/14/13 16:05
 Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 02 Batch: WG659093-3					
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**Method Blank Analysis**
Batch Quality Control**Analytical Method:** 14,504.1**Analytical Date:** 12/17/13 19:06**Analyst:** GP**Extraction Date:** 12/17/13 15:40

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01,04 Batch: WG659668-1					
1,2-Dibromoethane	ND		ug/l	0.010	-- A
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	-- A

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**Method Blank Analysis**
Batch Quality Control

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

Analytical Date: 12/18/13 08:09

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01,03 Batch: WG659894-3					
1,4-Dioxane	ND		ug/l	3.0	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/18/13 08:09
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG659895-3					
Methylene chloride	ND		ug/l	3.0	--
1,1-Dichloroethane	ND		ug/l	0.75	--
Chloroform	ND		ug/l	0.75	--
Carbon tetrachloride	ND		ug/l	0.50	--
1,2-Dichloropropane	ND		ug/l	1.8	--
Dibromochloromethane	ND		ug/l	0.50	--
1,1,2-Trichloroethane	ND		ug/l	0.75	--
2-Chloroethylvinyl ether	ND		ug/l	10	--
Tetrachloroethene	ND		ug/l	0.50	--
Chlorobenzene	ND		ug/l	0.50	--
Trichlorofluoromethane	ND		ug/l	2.5	--
1,2-Dichloroethane	ND		ug/l	0.50	--
1,1,1-Trichloroethane	ND		ug/l	0.50	--
Bromodichloromethane	ND		ug/l	0.50	--
trans-1,3-Dichloropropene	ND		ug/l	0.50	--
cis-1,3-Dichloropropene	ND		ug/l	0.50	--
1,1-Dichloropropene	ND		ug/l	2.5	--
Bromoform	ND		ug/l	2.0	--
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	--
Benzene	ND		ug/l	0.50	--
Toluene	ND		ug/l	0.75	--
Ethylbenzene	ND		ug/l	0.50	--
Chloromethane	ND		ug/l	2.5	--
Bromomethane	ND		ug/l	1.0	--
Vinyl chloride	ND		ug/l	1.0	--
Chloroethane	ND		ug/l	1.0	--
1,1-Dichloroethene	ND		ug/l	0.50	--
trans-1,2-Dichloroethene	ND		ug/l	0.75	--
Trichloroethene	ND		ug/l	0.50	--
1,2-Dichlorobenzene	ND		ug/l	2.5	--
1,3-Dichlorobenzene	ND		ug/l	2.5	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/18/13 08:09
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG659895-3					
1,4-Dichlorobenzene	ND		ug/l	2.5	--
Methyl tert butyl ether	ND		ug/l	1.0	--
p/m-Xylene	ND		ug/l	1.0	--
o-Xylene	ND		ug/l	1.0	--
Xylenes, Total	ND		ug/l	1.0	--
cis-1,2-Dichloroethene	ND		ug/l	0.50	--
Dibromomethane	ND		ug/l	5.0	--
1,4-Dichlorobutane	ND		ug/l	5.0	--
1,2,3-Trichloropropane	ND		ug/l	5.0	--
Styrene	ND		ug/l	1.0	--
Dichlorodifluoromethane	ND		ug/l	5.0	--
Acetone	ND		ug/l	5.0	--
Carbon disulfide	ND		ug/l	5.0	--
2-Butanone	ND		ug/l	5.0	--
Vinyl acetate	ND		ug/l	5.0	--
4-Methyl-2-pentanone	ND		ug/l	5.0	--
2-Hexanone	ND		ug/l	5.0	--
Ethyl methacrylate	ND		ug/l	5.0	--
Acrylonitrile	ND		ug/l	5.0	--
Bromochloromethane	ND		ug/l	2.5	--
Tetrahydrofuran	ND		ug/l	5.0	--
2,2-Dichloropropane	ND		ug/l	2.5	--
1,2-Dibromoethane	ND		ug/l	2.0	--
1,3-Dichloropropane	ND		ug/l	2.5	--
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	--
Bromobenzene	ND		ug/l	2.5	--
n-Butylbenzene	ND		ug/l	0.50	--
sec-Butylbenzene	ND		ug/l	0.50	--
tert-Butylbenzene	ND		ug/l	2.5	--
o-Chlorotoluene	ND		ug/l	2.5	--
p-Chlorotoluene	ND		ug/l	2.5	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8260C
 Analytical Date: 12/18/13 08:09
 Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG659895-3					
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Isopropylbenzene	ND		ug/l	0.50	--
p-Isopropyltoluene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	2.5	--
n-Propylbenzene	ND		ug/l	0.50	--
1,2,3-Trichlorobenzene	ND		ug/l	2.5	--
1,2,4-Trichlorobenzene	ND		ug/l	2.5	--
1,3,5-Trimethylbenzene	ND		ug/l	2.5	--
1,3,5-Trichlorobenzene	ND		ug/l	2.0	--
1,2,4-Trimethylbenzene	ND		ug/l	2.5	--
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	--
Ethyl ether	ND		ug/l	2.5	--
Methyl Acetate	ND		ug/l	10	--
Ethyl Acetate	ND		ug/l	10	--
Isopropyl Ether	ND		ug/l	2.0	--
Cyclohexane	ND		ug/l	10	--
Tert-Butyl Alcohol	ND		ug/l	10	--
Ethyl-Tert-Butyl-Ether	ND		ug/l	2.0	--
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	--
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	10	--
Methyl cyclohexane	ND		ug/l	10	--
p-Diethylbenzene	ND		ug/l	2.0	--
4-Ethyltoluene	ND		ug/l	2.0	--
1,2,4,5-Tetramethylbenzene	ND		ug/l	2.0	--

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**Method Blank Analysis**
Batch Quality Control

Analytical Method: 1,8260C

Analytical Date: 12/18/13 08:09

Analyst: MM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG659895-3					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	106		70-130
Dibromofluoromethane	97		70-130

Lab Control Sample Analysis **Batch Quality Control**

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG659093-1 WG659093-2								
Methylene chloride	92		94		70-130	2		20
1,1-Dichloroethane	94		101		70-130	7		20
Chloroform	94		101		70-130	7		20
Carbon tetrachloride	91		99		63-132	8		20
1,2-Dichloropropane	94		99		70-130	5		20
Dibromochloromethane	93		95		63-130	2		20
1,1,2-Trichloroethane	91		96		70-130	5		20
Tetrachloroethene	92		100		70-130	8		20
Chlorobenzene	95		100		75-130	5		25
Trichlorofluoromethane	89		96		62-150	8		20
1,2-Dichloroethane	93		99		70-130	6		20
1,1,1-Trichloroethane	91		100		67-130	9		20
Bromodichloromethane	94		100		67-130	6		20
trans-1,3-Dichloropropene	96		100		70-130	4		20
cis-1,3-Dichloropropene	96		101		70-130	5		20
1,1-Dichloropropene	91		99		70-130	8		20
Bromoform	89		97		54-136	9		20
1,1,2,2-Tetrachloroethane	88		96		67-130	9		20
Benzene	92		100		70-130	8		25
Toluene	95		100		70-130	5		25
Ethylbenzene	94		101		70-130	7		20

Lab Control Sample Analysis Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG659093-1 WG659093-2								
Chloromethane	93		101		64-130	8		20
Bromomethane	92		97		39-139	5		20
Vinyl chloride	95		104		55-140	9		20
Chloroethane	94		102		55-138	8		20
1,1-Dichloroethene	90		99		61-145	10		25
trans-1,2-Dichloroethene	91		99		70-130	8		20
Trichloroethene	92		98		70-130	6		25
1,2-Dichlorobenzene	93		102		70-130	9		20
1,3-Dichlorobenzene	96		104		70-130	8		20
1,4-Dichlorobenzene	96		103		70-130	7		20
Methyl tert butyl ether	88		95		63-130	8		20
p/m-Xylene	96		103		70-130	7		20
o-Xylene	96		103		70-130	7		20
cis-1,2-Dichloroethene	95		102		70-130	7		20
Dibromomethane	90		95		70-130	5		20
1,4-Dichlorobutane	89		97		70-130	9		20
1,2,3-Trichloropropane	85		94		64-130	10		20
Styrene	99		105		70-130	6		20
Dichlorodifluoromethane	94		100		36-147	6		20
Acetone	110		70		58-148	44	Q	20
Carbon disulfide	91		98		51-130	7		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG659093-1 WG659093-2								
2-Butanone	93		89		63-138	4		20
Vinyl acetate	96		99		70-130	3		20
4-Methyl-2-pentanone	82		90		59-130	9		20
2-Hexanone	89		84		57-130	6		20
Ethyl methacrylate	88		94		70-130	7		20
Acrylonitrile	90		92		70-130	2		20
Bromochloromethane	93		100		70-130	7		20
Tetrahydrofuran	88		89		58-130	1		20
2,2-Dichloropropane	99		106		63-133	7		20
1,2-Dibromoethane	92		94		70-130	2		20
1,3-Dichloropropane	92		96		70-130	4		20
1,1,1,2-Tetrachloroethane	95		101		64-130	6		20
Bromobenzene	92		102		70-130	10		20
n-Butylbenzene	100		105		53-136	5		20
sec-Butylbenzene	96		104		70-130	8		20
tert-Butylbenzene	94		103		70-130	9		20
o-Chlorotoluene	96		104		70-130	8		20
p-Chlorotoluene	96		104		70-130	8		20
1,2-Dibromo-3-chloropropane	84		92		41-144	9		20
Hexachlorobutadiene	98		105		63-130	7		20
Isopropylbenzene	94		104		70-130	10		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 02 Batch: WG659093-1 WG659093-2								
p-Isopropyltoluene	98		105		70-130	7		20
Naphthalene	93		94		70-130	1		20
n-Propylbenzene	95		104		69-130	9		20
1,2,3-Trichlorobenzene	94		99		70-130	5		20
1,2,4-Trichlorobenzene	96		99		70-130	3		20
1,3,5-Trimethylbenzene	97		104		64-130	7		20
1,2,4-Trimethylbenzene	97		103		70-130	6		20
trans-1,4-Dichloro-2-butene	88		97		70-130	10		20
Ethyl ether	89		96		59-134	8		20
Tert-Butyl Alcohol	92		95		70-130	3		20
Tertiary-Amyl Methyl Ether	89		95		66-130	7		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	97		96		70-130
Toluene-d8	100		100		70-130
4-Bromofluorobenzene	99		101		70-130
Dibromofluoromethane	99		99		70-130

Lab Control Sample Analysis Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Microextractables by GC - Westborough Lab Associated sample(s): 01,04 Batch: WG659668-2									
1,2-Dibromoethane	114		-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	113		-		70-130	-		20	A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01,03 Batch: WG659894-1 WG659894-2								
1,4-Dioxane	117		122		70-130	4		25

Lab Control Sample Analysis **Batch Quality Control**

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659895-1 WG659895-2								
Methylene chloride	92		94		70-130	2		20
1,1-Dichloroethane	95		97		70-130	2		20
Chloroform	104		106		70-130	2		20
Carbon tetrachloride	106		111		63-132	5		20
1,2-Dichloropropane	104		105		70-130	1		20
Dibromochloromethane	96		97		63-130	1		20
1,1,2-Trichloroethane	100		98		70-130	2		20
2-Chloroethylvinyl ether	54	Q	55	Q	70-130	2		20
Tetrachloroethene	104		105		70-130	1		20
Chlorobenzene	101		101		75-130	0		25
Trichlorofluoromethane	90		91		62-150	1		20
1,2-Dichloroethane	102		105		70-130	3		20
1,1,1-Trichloroethane	107		110		67-130	3		20
Bromodichloromethane	100		104		67-130	4		20
trans-1,3-Dichloropropene	100		102		70-130	2		20
cis-1,3-Dichloropropene	103		105		70-130	2		20
1,1-Dichloropropene	106		107		70-130	1		20
Bromoform	91		98		54-136	7		20
1,1,2,2-Tetrachloroethane	101		103		67-130	2		20
Benzene	105		108		70-130	3		25
Toluene	104		103		70-130	1		25

Lab Control Sample Analysis Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659895-1 WG659895-2								
Ethylbenzene	101		101		70-130	0		20
Chloromethane	106		107		64-130	1		20
Bromomethane	99		101		39-139	2		20
Vinyl chloride	108		108		55-140	0		20
Chloroethane	85		89		55-138	5		20
1,1-Dichloroethene	94		96		61-145	2		25
trans-1,2-Dichloroethene	96		98		70-130	2		20
Trichloroethene	104		109		70-130	5		25
1,2-Dichlorobenzene	102		106		70-130	4		20
1,3-Dichlorobenzene	102		105		70-130	3		20
1,4-Dichlorobenzene	102		107		70-130	5		20
Methyl tert butyl ether	92		92		63-130	0		20
p/m-Xylene	101		101		70-130	0		20
o-Xylene	99		102		70-130	3		20
cis-1,2-Dichloroethene	106		109		70-130	3		20
Dibromomethane	100		101		70-130	1		20
1,4-Dichlorobutane	99		104		70-130	5		20
1,2,3-Trichloropropane	102		105		64-130	3		20
Styrene	97		98		70-130	1		20
Dichlorodifluoromethane	116		115		36-147	1		20
Acetone	95		75		58-148	24	Q	20

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659895-1 WG659895-2								
Carbon disulfide	89		94		51-130	5		20
2-Butanone	114		97		63-138	16		20
Vinyl acetate	93		94		70-130	1		20
4-Methyl-2-pentanone	96		100		59-130	4		20
2-Hexanone	96		91		57-130	5		20
Ethyl methacrylate	98		96		70-130	2		20
Acrylonitrile	92		98		70-130	6		20
Bromochloromethane	101		104		70-130	3		20
Tetrahydrofuran	97		98		58-130	1		20
2,2-Dichloropropane	109		108		63-133	1		20
1,2-Dibromoethane	101		99		70-130	2		20
1,3-Dichloropropane	100		100		70-130	0		20
1,1,1,2-Tetrachloroethane	103		106		64-130	3		20
Bromobenzene	103		107		70-130	4		20
n-Butylbenzene	106		107		53-136	1		20
sec-Butylbenzene	106		107		70-130	1		20
tert-Butylbenzene	105		110		70-130	5		20
o-Chlorotoluene	105		108		70-130	3		20
p-Chlorotoluene	103		106		70-130	3		20
1,2-Dibromo-3-chloropropane	85		96		41-144	12		20
Hexachlorobutadiene	125		119		63-130	5		20

Lab Control Sample Analysis **Batch Quality Control**

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659895-1 WG659895-2								
Isopropylbenzene	104		108		70-130	4		20
p-Isopropyltoluene	105		109		70-130	4		20
Naphthalene	96		99		70-130	3		20
n-Propylbenzene	104		107		69-130	3		20
1,2,3-Trichlorobenzene	102		106		70-130	4		20
1,2,4-Trichlorobenzene	102		106		70-130	4		20
1,3,5-Trimethylbenzene	104		108		64-130	4		20
1,3,5-Trichlorobenzene	104		109		70-130	5		20
1,2,4-Trimethylbenzene	105		109		70-130	4		20
trans-1,4-Dichloro-2-butene	93		91		70-130	2		20
Ethyl ether	91		91		59-134	0		20
Methyl Acetate	100		103		70-130	3		20
Ethyl Acetate	99		101		70-130	2		20
Isopropyl Ether	99		100		70-130	1		20
Cyclohexane	104		107		70-130	3		20
Tert-Butyl Alcohol	98		99		70-130	1		20
Ethyl-Tert-Butyl-Ether	95		97		70-130	2		20
Tertiary-Amyl Methyl Ether	101		102		66-130	1		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	96		97		70-130	1		20
Methyl cyclohexane	108		112		70-130	4		20
p-Diethylbenzene	104		108		70-130	4		20

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659895-1 WG659895-2								
4-Ethyltoluene	105		109		70-130	4		20
1,2,4,5-Tetramethylbenzene	104		107		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		96		70-130
Toluene-d8	99		97		70-130
4-Bromofluorobenzene	103		104		70-130
Dibromofluoromethane	102		101		70-130

Matrix Spike Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Microextractables by GC - Westborough Lab Associated sample(s): 01,04 QC Batch ID: WG659668-3 QC Sample: L1325177-01 Client ID: MS Sample													
1,2-Dibromoethane	ND	0.256	0.281	110		-	-		70-130	-		20	A
1,2-Dibromo-3-chloropropane	ND	0.256	0.280	109		-	-		70-130	-		20	A

SEMIVOLATILES

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8270D
Analytical Date: 12/17/13 02:58
Analyst: JB

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/14/13 08:38

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

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01

Date Collected: 12/13/13 11:30

Client ID: HA13-B4-OW

Date Received: 12/13/13

Sample Location: Not Specified

Field Prep: Not Specified

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	79		21-120
Phenol-d6	52		10-120
Nitrobenzene-d5	119		23-120
2-Fluorobiphenyl	118		15-120
2,4,6-Tribromophenol	131	Q	10-120
4-Terphenyl-d14	148		41-149

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water
Analytical Method: 1,8270D-SIM
Analytical Date: 12/16/13 13:29
Analyst: HL

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified
Extraction Method: EPA 3510C
Extraction Date: 12/14/13 08:38

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	56		21-120
Phenol-d6	39		10-120
Nitrobenzene-d5	98		23-120
2-Fluorobiphenyl	92		15-120
2,4,6-Tribromophenol	121	Q	10-120
4-Terphenyl-d14	128		41-149



Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 12/16/13 11:00
 Analyst: HL

Extraction Method: EPA 3510C
 Extraction Date: 12/14/13 08:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG659037-1					
Acenaphthene	ND		ug/l	0.20	--
2-Chloronaphthalene	ND		ug/l	0.20	--
Fluoranthene	ND		ug/l	0.20	--
Hexachlorobutadiene	ND		ug/l	0.50	--
Naphthalene	ND		ug/l	0.20	--
Benzo(a)anthracene	ND		ug/l	0.20	--
Benzo(a)pyrene	ND		ug/l	0.20	--
Benzo(b)fluoranthene	ND		ug/l	0.20	--
Benzo(k)fluoranthene	ND		ug/l	0.20	--
Chrysene	ND		ug/l	0.20	--
Acenaphthylene	ND		ug/l	0.20	--
Anthracene	ND		ug/l	0.20	--
Benzo(ghi)perylene	ND		ug/l	0.20	--
Fluorene	ND		ug/l	0.20	--
Phenanthrene	ND		ug/l	0.20	--
Dibenzo(a,h)anthracene	ND		ug/l	0.20	--
Indeno(1,2,3-cd)Pyrene	ND		ug/l	0.20	--
Pyrene	ND		ug/l	0.20	--
1-Methylnaphthalene	ND		ug/l	0.20	--
2-Methylnaphthalene	ND		ug/l	0.20	--
Pentachlorophenol	ND		ug/l	0.80	--
Hexachlorobenzene	ND		ug/l	0.80	--
Hexachloroethane	ND		ug/l	0.80	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D-SIM
 Analytical Date: 12/16/13 11:00
 Analyst: HL

Extraction Method: EPA 3510C
 Extraction Date: 12/14/13 08:40

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG659037-1					

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	61		21-120
Phenol-d6	42		10-120
Nitrobenzene-d5	113		23-120
2-Fluorobiphenyl	106		15-120
2,4,6-Tribromophenol	112		10-120
4-Terphenyl-d14	119		41-149

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/16/13 14:15
 Analyst: JB

Extraction Method: EPA 3510C
 Extraction Date: 12/14/13 08:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG659038-1					
Benzidine	ND		ug/l	20	--
1,2,4-Trichlorobenzene	ND		ug/l	5.0	--
Bis(2-chloroethyl)ether	ND		ug/l	2.0	--
1,2-Dichlorobenzene	ND		ug/l	2.0	--
1,3-Dichlorobenzene	ND		ug/l	2.0	--
1,4-Dichlorobenzene	ND		ug/l	2.0	--
3,3'-Dichlorobenzidine	ND		ug/l	5.0	--
2,4-Dinitrotoluene	ND		ug/l	5.0	--
2,6-Dinitrotoluene	ND		ug/l	5.0	--
Azobenzene	ND		ug/l	2.0	--
4-Chlorophenyl phenyl ether	ND		ug/l	2.0	--
4-Bromophenyl phenyl ether	ND		ug/l	2.0	--
Bis(2-chloroisopropyl)ether	ND		ug/l	2.0	--
Bis(2-chloroethoxy)methane	ND		ug/l	5.0	--
Hexachlorocyclopentadiene	ND		ug/l	20	--
Isophorone	ND		ug/l	5.0	--
Nitrobenzene	ND		ug/l	2.0	--
NDPA/DPA	ND		ug/l	2.0	--
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	--
Butyl benzyl phthalate	ND		ug/l	5.0	--
Di-n-butylphthalate	ND		ug/l	5.0	--
Di-n-octylphthalate	ND		ug/l	5.0	--
Diethyl phthalate	ND		ug/l	5.0	--
Dimethyl phthalate	ND		ug/l	5.0	--
Aniline	ND		ug/l	2.0	--
4-Chloroaniline	ND		ug/l	5.0	--
2-Nitroaniline	ND		ug/l	5.0	--
3-Nitroaniline	ND		ug/l	5.0	--
4-Nitroaniline	ND		ug/l	5.0	--
Dibenzofuran	ND		ug/l	2.0	--
n-Nitrosodimethylamine	ND		ug/l	2.0	--

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 1,8270D
 Analytical Date: 12/16/13 14:15
 Analyst: JB

Extraction Method: EPA 3510C
 Extraction Date: 12/14/13 08:38

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG659038-1					
2,4,6-Trichlorophenol	ND		ug/l	5.0	--
p-Chloro-m-cresol	ND		ug/l	2.0	--
2-Chlorophenol	ND		ug/l	2.0	--
2,4-Dichlorophenol	ND		ug/l	5.0	--
2,4-Dimethylphenol	ND		ug/l	5.0	--
2-Nitrophenol	ND		ug/l	10	--
4-Nitrophenol	ND		ug/l	10	--
2,4-Dinitrophenol	ND		ug/l	20	--
4,6-Dinitro-o-cresol	ND		ug/l	10	--
Phenol	ND		ug/l	5.0	--
2-Methylphenol	ND		ug/l	5.0	--
3-Methylphenol/4-Methylphenol	ND		ug/l	5.0	--
2,4,5-Trichlorophenol	ND		ug/l	5.0	--
Benzoic Acid	ND		ug/l	50	--
Benzyl Alcohol	ND		ug/l	2.0	--
Carbazole	ND		ug/l	2.0	--
Pyridine	ND		ug/l	5.0	--

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2-Fluorophenol	86		21-120
Phenol-d6	47		10-120
Nitrobenzene-d5	125	Q	23-120
2-Fluorobiphenyl	116		15-120
2,4,6-Tribromophenol	108		10-120
4-Terphenyl-d14	129		41-149

Lab Control Sample Analysis Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG659037-2 WG659037-3								
Acenaphthene	110		99		37-111	11		40
2-Chloronaphthalene	118		107		40-140	10		40
Fluoranthene	131		130		40-140	1		40
Hexachlorobutadiene	106		96		40-140	10		40
Naphthalene	110		102		40-140	8		40
Benzo(a)anthracene	141	Q	133		40-140	6		40
Benzo(a)pyrene	126		112		40-140	12		40
Benzo(b)fluoranthene	141	Q	124		40-140	13		40
Benzo(k)fluoranthene	144	Q	128		40-140	12		40
Chrysene	118		112		40-140	5		40
Acenaphthylene	116		108		40-140	7		40
Anthracene	115		116		40-140	1		40
Benzo(ghi)perylene	137		96		40-140	35		40
Fluorene	121		113		40-140	7		40
Phenanthrene	122		114		40-140	7		40
Dibenzo(a,h)anthracene	138		108		40-140	24		40
Indeno(1,2,3-cd)pyrene	137		103		40-140	28		40
Pyrene	123		122		26-127	1		40
1-Methylnaphthalene	110		105		40-140	5		40
2-Methylnaphthalene	117		104		40-140	12		40
Pentachlorophenol	162	Q	152	Q	9-103	6		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG659037-2 WG659037-3								
Hexachlorobenzene	112		106		40-140	6		40
Hexachloroethane	114		104		40-140	9		40

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	62		64		21-120
Phenol-d6	48		49		10-120
Nitrobenzene-d5	121	Q	118		23-120
2-Fluorobiphenyl	124	Q	107		15-120
2,4,6-Tribromophenol	138	Q	126	Q	10-120
4-Terphenyl-d14	137		136		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659038-2 WG659038-3								
Benzidine	10		10		10-75	2		30
1,2,4-Trichlorobenzene	135	Q	126	Q	39-98	7		30
Bis(2-chloroethyl)ether	141	Q	130		40-140	8		30
1,2-Dichlorobenzene	128		122		40-140	5		30
1,3-Dichlorobenzene	124		118		40-140	5		30
1,4-Dichlorobenzene	125	Q	120	Q	36-97	4		30
3,3'-Dichlorobenzidine	84		82		40-140	2		30
2,4-Dinitrotoluene	158	Q	145	Q	24-96	9		30
2,6-Dinitrotoluene	152	Q	139		40-140	9		30
Azobenzene	147	Q	137		40-140	7		30
4-Chlorophenyl phenyl ether	152	Q	140		40-140	8		30
4-Bromophenyl phenyl ether	151	Q	140		40-140	8		30
Bis(2-chloroisopropyl)ether	148	Q	139		40-140	6		30
Bis(2-chloroethoxy)methane	143	Q	134		40-140	6		30
Hexachlorocyclopentadiene	95		96		40-140	1		30
Isophorone	140		133		40-140	5		30
Nitrobenzene	159	Q	147	Q	40-140	8		30
NDPA/DPA	149	Q	138		40-140	8		30
Bis(2-ethylhexyl)phthalate	164	Q	150	Q	40-140	9		30
Butyl benzyl phthalate	146	Q	133		40-140	9		30
Di-n-butylphthalate	158	Q	146	Q	40-140	8		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659038-2 WG659038-3								
Di-n-octylphthalate	165	Q	151	Q	40-140	9		30
Diethyl phthalate	155	Q	146	Q	40-140	6		30
Dimethyl phthalate	165	Q	152	Q	40-140	8		30
Aniline	47		48		40-140	2		30
4-Chloroaniline	89		89		40-140	0		30
2-Nitroaniline	143		136		52-143	5		30
3-Nitroaniline	74		74		25-145	0		30
4-Nitroaniline	143		130		51-143	10		30
Dibenzofuran	154	Q	141	Q	40-140	9		30
n-Nitrosodimethylamine	94	Q	87	Q	22-74	8		30
2,4,6-Trichlorophenol	143	Q	133	Q	30-130	7		30
p-Chloro-m-cresol	145	Q	137	Q	23-97	6		30
2-Chlorophenol	156	Q	146	Q	27-123	7		30
2,4-Dichlorophenol	154	Q	143	Q	30-130	7		30
2,4-Dimethylphenol	120		97		30-130	21		30
2-Nitrophenol	145	Q	138	Q	30-130	5		30
4-Nitrophenol	100	Q	92	Q	10-80	8		30
2,4-Dinitrophenol	158	Q	150	Q	20-130	5		30
4,6-Dinitro-o-cresol	152		143		20-164	6		30
Phenol	79		74		12-110	7		30
2-Methylphenol	135	Q	125		30-130	8		30

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Semivolatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG659038-2 WG659038-3								
3-Methylphenol/4-Methylphenol	131	Q	122		30-130	7		30
2,4,5-Trichlorophenol	142	Q	132	Q	30-130	7		30
Benzoic Acid	79		74		10-164	7		30
Benzyl Alcohol	127	Q	120	Q	26-116	6		30
Carbazole	161	Q	147	Q	55-144	9		30
Pyridine	26		22		10-66	17		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2-Fluorophenol	109		103		21-120
Phenol-d6	62		59		10-120
Nitrobenzene-d5	144	Q	138	Q	23-120
2-Fluorobiphenyl	131	Q	125	Q	15-120
2,4,6-Tribromophenol	146	Q	134	Q	10-120
4-Terphenyl-d14	148		137		41-149

PCBS

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13**SAMPLE RESULTS**

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water
Analytical Method: 5,608
Analytical Date: 12/18/13 07:53
Analyst: JT

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified
Extraction Method: EPA 608
Extraction Date: 12/15/13 13:30
Cleanup Method1: EPA 3665A
Cleanup Date1: 12/16/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 12/16/13

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

Surrogate	% Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	54		30-150	A
Decachlorobiphenyl	65		30-150	A

Project Name: HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13

Method Blank Analysis Batch Quality Control

Analytical Method: 5,608
 Analytical Date: 12/18/13 08:30
 Analyst: JT

Extraction Method: EPA 608
 Extraction Date: 12/15/13 13:30
 Cleanup Method1: EPA 3665A
 Cleanup Date1: 12/16/13
 Cleanup Method2: EPA 3660B
 Cleanup Date2: 12/16/13

Parameter	Result	Qualifier	Units	RL	MDL	Column
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG659125-1						
Aroclor 1016	ND		ug/l	0.250	--	A
Aroclor 1221	ND		ug/l	0.250	--	A
Aroclor 1232	ND		ug/l	0.250	--	A
Aroclor 1242	ND		ug/l	0.250	--	A
Aroclor 1248	ND		ug/l	0.250	--	A
Aroclor 1254	ND		ug/l	0.250	--	A
Aroclor 1260	ND		ug/l	0.200	--	A

Surrogate	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	63		30-150	A
Decachlorobiphenyl	73		30-150	A

Matrix Spike Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

<i>Parameter</i>	<i>Native Sample</i>	<i>MS Added</i>	<i>MS Found</i>	<i>MS %Recovery</i>	<i>Qual</i>	<i>MSD Found</i>	<i>MSD %Recovery</i>	<i>Qual</i>	<i>Recovery Limits</i>	<i>RPD</i>	<i>Qual</i>	<i>RPD Limits</i>	<i>Column</i>
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659125-3 QC Sample: L1325177-01 Client ID: MS Sample													
Aroclor 1016	ND	1	0.662	66		-	-		40-140	-		50	A
Aroclor 1260	ND	1	0.609	61		-	-		40-140	-		50	A

<i>Surrogate</i>	<i>MS % Recovery</i>	<i>Qualifier</i>	<i>MSD % Recovery</i>	<i>Qualifier</i>	<i>Acceptance Criteria</i>	<i>Column</i>
2,4,5,6-Tetrachloro-m-xylene	66				30-150	A
Decachlorobiphenyl	56				30-150	A

Lab Control Sample Analysis**Batch Quality Control****Project Name:** HOTEL COMMONWEALTH**Lab Number:** L1325418**Project Number:** 39876-041**Report Date:** 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits	Column
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG659125-2									
Aroclor 1016	65		-		40-140	-		50	A
Aroclor 1260	61		-		40-140	-		50	A

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	64				30-150	A
Decachlorobiphenyl	70				30-150	A

Lab Duplicate Analysis **Batch Quality Control**

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659125-4 QC Sample: L1325177-02 Client ID: DUP Sample						
Aroclor 1016	ND	ND	ug/l	NC		50 A
Aroclor 1221	ND	ND	ug/l	NC		50 A
Aroclor 1232	ND	ND	ug/l	NC		50 A
Aroclor 1242	ND	ND	ug/l	NC		50 A
Aroclor 1248	ND	ND	ug/l	NC		50 A
Aroclor 1254	ND	ND	ug/l	NC		50 A
Aroclor 1260	ND	ND	ug/l	NC		50 A

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria	Column
2,4,5,6-Tetrachloro-m-xylene	60		58		30-150	A
Decachlorobiphenyl	46		38		30-150	A

METALS

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

SAMPLE RESULTS

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	ND		mg/l	0.00200	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Arsenic, Total	0.00534		mg/l	0.00100	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Cadmium, Total	ND		mg/l	0.00040	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Chromium, Total	ND		mg/l	0.00200	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Copper, Total	ND		mg/l	0.00200	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Iron, Total	1.1		mg/l	0.05	--	1	12/17/13 11:04	12/17/13 17:32	EPA 3005A	19,200.7	TT
Lead, Total	ND		mg/l	0.00200	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Mercury, Total	ND		mg/l	0.0002	--	1	12/17/13 15:20	12/18/13 09:16	EPA 245.1	3,245.1	JH
Nickel, Total	0.00122		mg/l	0.00100	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Selenium, Total	ND		mg/l	0.0100	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Silver, Total	ND		mg/l	0.00080	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM
Zinc, Total	ND		mg/l	0.02000	--	2	12/17/13 11:04	12/17/13 19:09	EPA 3005A	1,6020A	BM



Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

Method Blank Analysis Batch Quality Control

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG659587-1									
Antimony, Total	ND	mg/l	0.00100	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Arsenic, Total	ND	mg/l	0.00050	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Cadmium, Total	ND	mg/l	0.00020	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Chromium, Total	ND	mg/l	0.00100	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Copper, Total	ND	mg/l	0.00100	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Lead, Total	ND	mg/l	0.00100	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Nickel, Total	ND	mg/l	0.00050	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Selenium, Total	ND	mg/l	0.00500	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Silver, Total	ND	mg/l	0.00040	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM
Zinc, Total	ND	mg/l	0.01000	--	1	12/17/13 11:04	12/17/13 17:52	1,6020A	BM

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG659589-1									
Iron, Total	ND	mg/l	0.05	--	1	12/17/13 11:04	12/17/13 17:25	19,200.7	TT

Prep Information

Digestion Method: EPA 3005A

Parameter	Result Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Westborough Lab for sample(s): 01 Batch: WG659630-1									
Mercury, Total	ND	mg/l	0.0002	--	1	12/17/13 15:20	12/18/13 08:52	3,245.1	JH

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG659587-2								
Antimony, Total	88		-		80-120	-		
Arsenic, Total	101		-		80-120	-		
Cadmium, Total	104		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Copper, Total	105		-		80-120	-		
Lead, Total	99		-		80-120	-		
Nickel, Total	106		-		80-120	-		
Selenium, Total	107		-		80-120	-		
Silver, Total	96		-		80-120	-		
Zinc, Total	108		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG659589-2								
Iron, Total	93		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG659630-2								
Mercury, Total	88		-		85-115	-		

Matrix Spike Analysis **Batch Quality Control**

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659587-4 QC Sample: L1325418-01 Client ID: HA13-B4-OW												
Antimony, Total	ND	0.5	0.4967	99		-	-		80-120	-		20
Arsenic, Total	0.00534	0.12	0.1313	105		-	-		80-120	-		20
Cadmium, Total	ND	0.051	0.05413	106		-	-		80-120	-		20
Chromium, Total	ND	0.2	0.2001	100		-	-		80-120	-		20
Copper, Total	ND	0.25	0.2634	105		-	-		80-120	-		20
Lead, Total	ND	0.51	0.5191	102		-	-		80-120	-		20
Nickel, Total	0.00122	0.5	0.5140	102		-	-		80-120	-		20
Selenium, Total	ND	0.12	0.125	104		-	-		80-120	-		20
Silver, Total	ND	0.05	0.04824	96		-	-		80-120	-		20
Zinc, Total	ND	0.5	0.5354	107		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659589-4 QC Sample: L1325418-01 Client ID: HA13-B4-OW												
Iron, Total	1.1	1	2.0	90		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659630-4 QC Sample: L1324591-08 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.0051	103		-	-		70-130	-		20

Lab Duplicate Analysis Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659587-3 QC Sample: L1325418-01 Client ID: HA13-B4-OW						
Antimony, Total	ND	ND	mg/l	NC		20
Arsenic, Total	0.00534	0.00567	mg/l	6		20
Cadmium, Total	ND	ND	mg/l	NC		20
Chromium, Total	ND	ND	mg/l	NC		20
Copper, Total	ND	ND	mg/l	NC		20
Lead, Total	ND	ND	mg/l	NC		20
Nickel, Total	0.00122	0.00126	mg/l	3		20
Selenium, Total	ND	ND	mg/l	NC		20
Silver, Total	ND	ND	mg/l	NC		20
Zinc, Total	ND	ND	mg/l	NC		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659589-3 QC Sample: L1325418-01 Client ID: HA13-B4-OW						
Iron, Total	1.1	1.1	mg/l	0		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659630-3 QC Sample: L1324591-08 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS & MISCELLANEOUS

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

SAMPLE RESULTS

Lab ID: L1325418-01
Client ID: HA13-B4-OW
Sample Location: Not Specified
Matrix: Water

Date Collected: 12/13/13 11:30
Date Received: 12/13/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	12/16/13 10:30	30,2540D	DW
Cyanide, Total	ND		mg/l	0.005	--	1	12/17/13 09:30	12/17/13 15:20	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/13/13 18:40	30,4500CL-D	EL
TPH	ND		mg/l	4.00	--	1	12/14/13 11:00	12/16/13 12:30	74,1664A	ML
Phenolics, Total	0.030		mg/l	0.030	--	1	12/16/13 10:45	12/16/13 16:50	4,420.1	MP
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/13/13 23:50	12/14/13 00:03	30,3500CR-D	EL
Anions by Ion Chromatography - Westborough Lab										
Chloride	663.		mg/l	12.5	--	25	-	12/17/13 00:36	44,300.0	AU



Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

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: WG658951-1										
Chlorine, Total Residual	ND		mg/l	0.02	--	1	-	12/13/13 18:40	30,4500CL-D	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG658985-1										
Chromium, Hexavalent	ND		mg/l	0.010	--	1	12/13/13 23:50	12/14/13 00:02	30,3500CR-D	EL
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG659079-1										
TPH	ND		mg/l	4.00	--	1	12/14/13 11:00	12/16/13 12:30	74,1664A	ML
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG659182-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	12/16/13 10:30	30,2540D	DW
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG659231-1										
Phenolics, Total	ND		mg/l	0.030	--	1	12/16/13 10:45	12/16/13 16:47	4,420.1	MP
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG659542-1										
Cyanide, Total	ND		mg/l	0.005	--	1	12/17/13 09:30	12/17/13 14:49	30,4500CN-CE	JO
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG659755-1										
Chloride	ND		mg/l	0.500	--	1	-	12/16/13 23:48	44,300.0	AU

Lab Control Sample Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG658951-2								
Chlorine, Total Residual	101		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG658985-2								
Chromium, Hexavalent	95		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG659079-2								
TPH	80		-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG659231-2								
Phenolics, Total	106		-		82-111	-		12
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG659542-2								
Cyanide, Total	107		-		90-110	-		
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG659755-2								
Chloride	105		-		90-110	-		

Matrix Spike Analysis

Batch Quality Control

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

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: WG658985-4 QC Sample: L1325418-01 Client ID: HA13-B4-OW												
Chromium, Hexavalent	ND	0.1	0.100	100		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659079-4 QC Sample: L1325418-01 Client ID: HA13-B4-OW												
TPH	ND	20.4	16.0	78		-	-		64-132	-		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659231-4 QC Sample: L1325449-01 Client ID: MS Sample												
Phenolics, Total	0.040	0.8	0.88	105		-	-		77-124	-		12
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659542-4 QC Sample: L1325219-01 Client ID: MS Sample												
Cyanide, Total	ND	0.2	0.203	102		-	-		90-110	-		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659755-3 QC Sample: L1325322-03 Client ID: MS Sample												
Chloride	7.10	4	11.0	98		-	-		40-151	-		18

Lab Duplicate Analysis Batch Quality Control

Project Name: HOTEL COMMONWEALTH

Project Number: 39876-041

Lab Number: L1325418

Report Date: 12/19/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG658951-3 QC Sample: L1325418-01 Client ID: HA13-B4-OW						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG658985-3 QC Sample: L1325418-01 Client ID: HA13-B4-OW						
Chromium, Hexavalent	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659079-3 QC Sample: L1325177-02 Client ID: DUP Sample						
TPH	ND	ND	mg/l	NC		34
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659182-2 QC Sample: L1325285-01 Client ID: DUP Sample						
Solids, Total Suspended	110	130	mg/l	17		29
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659231-3 QC Sample: L1325449-01 Client ID: DUP Sample						
Phenolics, Total	0.040	0.030	mg/l	29	Q	12
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659542-3 QC Sample: L1325219-04 Client ID: DUP Sample						
Cyanide, Total	ND	ND	mg/l	NC		30
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG659755-4 QC Sample: L1325322-03 Client ID: DUP Sample						
Chloride	7.10	7.12	mg/l	0		18

Project Name: HOTEL COMMONWEALTH

Lab Number: L1325418

Project Number: 39876-041

Report Date: 12/19/13

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(*)
L1325418-01A	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260(14)
L1325418-01B	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260(14)
L1325418-01C	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260(14)
L1325418-01D	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260-SIM(14)
L1325418-01E	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260-SIM(14)
L1325418-01F	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260-SIM(14)
L1325418-01G	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	504(14)
L1325418-01H	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	-
L1325418-01I	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	504(14)
L1325418-01J	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1325418-01K	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1325418-01L	Amber 1000ml Na2S2O3	A	7	4.6	Y	Absent	PCB-608(7)
L1325418-01M	Amber 1000ml Na2S2O3	A	7	4.6	Y	Absent	PCB-608(7)
L1325418-01N	Plastic 250ml HNO3 preserved	A	<2	4.6	Y	Absent	SE-6020T(180),CR-6020T(180),NI-6020T(180),CU-6020T(180),ZN-6020T(180),FE-UI(180),PB-6020T(180),HG-U(28),AS-6020T(180),SB-6020T(180),AG-6020T(180),CD-6020T(180)
L1325418-01P	Plastic 500ml unpreserved	A	7	4.6	Y	Absent	CL-300(28),TRC-4500(1)
L1325418-01Q	Plastic 250ml NaOH preserved	A	>12	4.6	Y	Absent	TCN-4500(14)
L1325418-01R	Amber 1000ml HCl preserved	A	N/A	4.6	Y	Absent	TPH-1664(28)
L1325418-01S	Amber 1000ml HCl preserved	A	N/A	4.6	Y	Absent	TPH-1664(28)
L1325418-01T	Amber 500ml H2SO4 preserved	A	<2	4.6	Y	Absent	TPHENOL-420(28)
L1325418-01U	Plastic 1000ml unpreserved	A	7	4.6	Y	Absent	TSS-2540(7)
L1325418-01V	Plastic 500ml unpreserved	A	7	4.6	Y	Absent	HEXCR-3500(1)
L1325418-01W	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)
L1325418-01Z	Amber 1000ml unpreserved	A	7	4.6	Y	Absent	8270TCL(7),8270TCL-SIM(7)

*Values in parentheses indicate holding time in days



Project Name: HOTEL COMMONWEALTH**Project Number:** 39876-041**Lab Number:** L1325418**Report Date:** 12/19/13**Container Information**

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1325418-02A	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260(14)
L1325418-03A	Vial HCl preserved	A	N/A	4.6	Y	Absent	8260-SIM(14)
L1325418-04A	Vial Na2S2O3 preserved	A	N/A	4.6	Y	Absent	504(14)

*Values in parentheses indicate holding time in days

Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

GLOSSARY

Acronyms

EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NI	- Not Ignitable.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

Footnotes

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

Terms

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

Data Qualifiers

- A** - Spectra identified as "Aldol Condensation Product".
- B** - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit.
- C** - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.
- D** - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.
- E** - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.
- G** - The concentration may be biased high due to matrix interferences (i.e. co-elution) with non-target compound(s). The result should be considered estimated.
- H** - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.
- I** - The lower value for the two columns has been reported due to obvious interference.

Report Format: Data Usability Report



Project Name: HOTEL COMMONWEALTH
Project Number: 39876-041

Lab Number: L1325418
Report Date: 12/19/13

Data Qualifiers

- M** - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.
- NJ** - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.
- P** - The RPD between the results for the two columns exceeds the method-specified criteria.
- Q** - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)
- R** - Analytical results are from sample re-analysis.
- RE** - Analytical results are from sample re-extraction.
- S** - Analytical results are from modified screening analysis.

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REFERENCES

- 1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IV, 2007.
- 3 Methods for the Determination of Metals in Environmental Samples, Supplement I. EPA/600/R-94/111. May 1994.
- 4 Methods for Chemical Analysis of Water and Wastes. EPA 600/4-79-020. Revised March 1983.
- 5 Methods for the Organic Chemical Analysis of Municipal and Industrial Wastewater. Appendix A, Part 136, 40 CFR (Code of Federal Regulations).
- 14 Methods for the Determination of Organic Compounds in Finished Drinking Water and Raw Source Water. EPA/600/4-88/039, Revised July 1991.
- 19 Inductively Coupled Plasma Atomic Emission Spectrometric Method for Trace Element Analysis of Water and Wastes. Appendix C, Part 136, 40 CFR (Code of Federal Regulations). July 1, 1999 edition.
- 30 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WPCF. 18th Edition. 1992.
- 44 Methods for the Determination of Inorganic Substances in Environmental Samples, EPA/600/R-93/100, August 1993.
- 74 Method 1664, Revision A: N-Hexane Extractable Material (HEM; Oil & Grease) and Silica Gel Treated N-Hexane Extractable Material (SGT-HEM; Non-polar Material) by Extraction and Gravimetry, EPA-821-R-98-002, February 1999.

LIMITATION OF LIABILITIES

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

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



Certification Information

Last revised December 11, 2013

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

Westborough Facility

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

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

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

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

EPA 625: 4-Chloroaniline, 4-Methylphenol.

SM4500: Soil: Total Phosphorus, TKN, NO₂, NO₃.

EPA 9071: Total Petroleum Hydrocarbons, Oil & Grease.

Mansfield Facility

EPA 8270D: Biphenyl.

EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.

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

Drinking Water

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

EPA 300.0: Nitrate-N, Fluoride, Sulfate; **EPA 353.2:** Nitrate-N, Nitrite-N; **SM4500NO3-F:** Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500CI-D, SM2320B, SM2540C, SM4500H-B**

EPA 332: Perchlorate.

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

Non-Potable Water

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

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

EPA 245.1, SM4500H-B, EPA 120.1, SM2510B, SM2540C, SM2340B, SM2320B, SM4500CL-E, SM4500F-BC, SM426C, SM4500NH3-BH, EPA 350.1: Ammonia-N, **LACHAT 10-107-06-1-B:** Ammonia-N, **SM4500NO3-F, EPA 353.2:** Nitrate-N, **SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, SM4500P-B, E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.**

EPA 624: Volatile Halocarbons & Aromatics,

EPA 608: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs

EPA 625: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045:** PCB-Oil.

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

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

HALEY & ALDRICHHaley & Aldrich, Inc.
465 Medford St.,
Suite 2200,
Boston, MA 02129-1402**CHAIN OF CUSTODY RECORD**Phone (617) 886-7400
Fax (617) 886-7600

Page 1 of 1

H&A FILE NO. 39876-041

PROJECT NAME Hotel Commonwealth

H&A CONTACT L. Vanzler

LABORATORY Alpha

ADDRESS Westborough, Ma

CONTACT Gina Hall

DELIVERY DATE 12/13/13

TURNAROUND TIME std

PROJECT MANAGER L. Vanzler

Analysis Requested																			Comments (special instructions, precautions, additional method numbers, etc.)
Sample No.	Date	Time	Depth	Type	PCB-608	Total Metals	TSS	Hex Cr. and Cl, TRC	8260-SIM	8260	TCN	T. Phenol	8270-SIM	8270	TPH-1664	504	Number of Containers	Laboratory to use applicable DEP CAM methods, unless otherwise directed.	
HA13-B4-0w	12/13/13	1130	-	AQ	X	X	X	X	X	X	X	X	X	X	X	X	22	NPDES RGP Samples	
Trip blank -1	↓	—	-	↓						X							1		
Trip blank -2	↓	—	-	↓					X								1		
Trip blank -3	↓	—	-	↓												X	1		
			-																
			-																
			-																
			-																
			-																
			-																
NPDES Total Metals Hg.Ag.As. Cd.Cr.Cu.Ni.Pb.Sb. Co.Zn.Fe																			

NPDES Total
Metals Hg.Ag.As.
Cd.Cr.Cu.Ni.Pb.Sb.
Se.Zn.Fe

Sampled and Relinquished by		Received by		LIQUID														Sampling Comments	
Sign <i>Cody Smith</i>	Sign <i>Wayne Plummer</i>									X	X						X	VOA Vial	
Print <i>Cody Smith</i>	Print <i>Wayne Plummer</i>	X											X	X	X			Amber Glass	
Firm <i>H&A</i>	Firm <i>Alpha</i>		X	X	X						X							Plastic Bottle	
Date <i>12/13/13</i> Time <i>1700</i>	Date <i>12/13/13</i> Time <i>1700</i>	AH	AD	A	A	AF	AF	AC	AE	A	A	AF	AH					Preservative	
		1000	250	1000	500	40	40	250	500	1000	1000	1000	40					Volume ml	
Relinquished by		Received by		SOLID															
Sign <i>Wayne Plummer</i>	Sign <i>Elizabeth R...</i>																	VOA Vial	
Print <i>Wayne Plummer</i>	Print <i>Elizabeth R...</i>																	Amber Glass	
Firm <i>Alpha</i>	Firm <i>Alpha</i>																	Clear Glass	
Date <i>12/13/13</i> Time <i>1840</i>	Date <i>12/13/13</i> Time <i>1840</i>	AH	AD															Preservative	Evidence samples were tampered with? YES NO
		1000	250															Volume	If YES, please explain in section below.
Relinquished by		Received by		PRESERVATION KEY															
Sign	Sign	A Sample chilled C NaOH E H ₂ SO ₄ G Methanol																	
Print	Print	B Sample filtered D HNO ₃ F HCL (H) Water/NaHSO ₄ (circle)																	
Firm	Firm																		
Date	Date																		

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

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

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

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

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

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

Required Reporting Limits and Data Quality Objectives

☐ RC-S1	☐ S1	☐ GW1
☐ RC-S2	☐ S2	☐ GW2
☐ RC-GW1	☐ S3	☐ GW3
☐ RC-GW2		