ENVIRONMENTAL MANAGEMENT PROFESSIONALS, INC.
94 Sawyer Lane
Marshfield, MA 02050
781-834-3822 • Fax 781-834-7110

March 26, 2009

Mr. Victor Alvarez
United States Environmental Protection Agency
Region 1, Suite 100
1 Congress Street
Boston, MA 02114-2023

SUBJECT: Notice of Intent (NOI) for the Remediation General Permit
Massachusetts Water Resources Authority Contract #7021
Section 97A Water Main Extension Revere and East Boston, MA

Dear Mr. Alvarez,

On behalf of the Massachusetts Water Resources Authority and our client, P. Caliacco Corp., Environmental Management Professionals, Inc. is providing you with the attached Notice of Intent (NOI) for coverage under the Remediation General Permit (RGP) during the requisite dewatering activities associated with the subject project.

The project will consist of the installation of new water mains along Bennington Street in Revere and East Boston. The average depth of the utility trench is approximately six feet; several feet above the ground water levels. However, the contract specification requires that the contractor install a valve structure between project stations 0+00 to 0+50 at a depth of twelve feet, which is approximately two feet into groundwater. Consequently, the contractor may be required to handle residual water in the trench. Coverage under the RGP is being sought as an option to manage excess water.

Please review the attached NOI including a Site Locus, Discharge Location Map and DEP Priority Resource Map, Process Flow Diagram and Laboratory Analysis and contact me at 781-834-3822 if you should have any questions.

Sincerely

Ted Patch

EMP, Inc.

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

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

a) Name of **facility/site**: MWRA SECTION 97A WATER MAIN		**Facility/site** address: BELLE ISLE INLET		
Location of **facility/site**: longitude: -70 993 latitude: 42 393	Facility SIC code(s):	Street: BENNINGTON STREET		
b) Name of **facility/site owner**: Massachusetts Water Resources Authority		Town: Revere		
Email address of owner: markradville@mwra.state.us		State: MA	Zip: 02151	County: Suffolk
Telephone no.of facility/site **owner**: 617-788-2553				
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): Charlestown Naval Yard				
Street: 100 First Street,Building 39				
Town: Boston	State: MA	Zip: 02129	County: Suffolk	
c) Legal name of **operator**: P Caliacco Corp	**Operator** telephone no: 781-982-9800			
	Operator fax no.: 781-982 9569		**Operator** email: mciampa@caiacco.com	
Operator contact name and title: Mark Ciampa Project Manager				
Address of **operator** (if different from owner):	Street: 405 VFW Drive			
Town: Rockland	State: MA	Zip: 02370	County: Plymouth	

d) Check "yes" or "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes___ No ✓, if "yes," number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No ✓, if "yes," date and tracking #:
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes ✓ No___
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ✓ No__

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes___ No✓ If "yes," 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 storm water general permit? Y✓ N___, if Y, number: 2. phase I or II construction storm water general permit? Y✓ N___, if Y, number: MAR10D364 3. individual NPDES permit? Y___ N✓, if Y, number: 4. any other water quality related permit? Y___ N✓, if Y, number:

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:

Construction dewatering during the installation of water mains and associated structures for MWRA Section 97A on Bennington Street in Revere and East Boston Ma.

b) Provide the following information about each discharge:	1) Number of discharge points: 1	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.16 Average flow 0.11 Is maximum flow a **design value**? Y___ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. -70 993 lat. 42 393 ; pt.2: long._____ lat._____; pt.3: long._____ lat._____;
pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent ✓ or seasonal_____? Is discharge ongoing Yes____ No ✓ ?__

c) Expected dates of discharge (mm/dd/yy): start 04/05/09 end 06/30/09

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. In order to complete this section, the applicant will need to take a minimum of one sample of the untreated water and have it analyzed for **all** of the parameters listed in Appendix III. Historical data, (i.e., data taken no more than 2 years prior to the effective date of the permit) may be used if obtained pursuant to: i. Massachusetts' regulations 310 CMR 40.0000, the Massachusetts Contingency Plan ("Chapter 21E"); ii. New Hampshire's Title 50 RSA 485-A: Water Pollution and Waste Disposal or Title 50 RSA 485-C: Groundwater Protection Act; or iii. an EPA permit exclusion letter issued pursuant to 40 CFR 122.3, provided the data was analyzed with test methods that meet the requirements of this permit. Otherwise, a new sample shall be taken and analyzed.

a) Based on the analysis of the sample(s) of the untreated influent, the applicant must check the box of the sub-categories that the potential discharge falls within.

Gasoline Only	VOC Only	Primarily Metals ✓	Urban Fill Sites	Contaminated Sumps	Mixed Contaminants	Aquifer Testing
Fuel Oils (and Other Oils) only	VOC with Other Contaminants	Petroleum with Other Contaminants	Listed Contaminated Sites	Contaminated Dredge Condensates	Hydrostatic Testing of Pipelines/Tanks	Well Development or Rehabilitation

b) Based on the analysis of the untreated influent, the applicant must indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		✓	1	grab	EPA 160.2	4.0mg/l	853000	746.97	853000	497.98
2. Total Residual Chlorine	✓		1	grab	EPA 330.4	0.05mg/l				
3. Total Petroleum Hydrocarbons	✓		1	grab	MAEPH	0.21 mg/l				
4. Cyanide	✓		1	grab	EPA335.3	0.01 mg/l				
5. Benzene	✓		1	grab	EPA 8260B	0.5 ug/l				
6. Toluene	✓		1	grab	EPA 8260B	1.0 ug/l				
7. Ethylbenzene	✓		1	grab	EPA 8260B	1.0 ug/l				
8. (m,p,o) Xylenes	✓		1	grab	EPA 8260B	1.0 ug/l				
9. Total BTEX[4]	✓		1	grab	EPA 8260B	1.0 ug/l				

[4] BTEX = Sum of Benzene, Toluene, Ethylbenzene, total Xylenes.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	✓		1	grab	EPA 8260B	2.0 ug/l				
11. Methyl-tert-Butyl Ether (MtBE)	✓		1	grab	EPA 8260B	1.0 ug/l				
12. tert-Butyl Alcohol (TBA)	✓		1	grab	EPA 8260B	100.0 ug/l				
13. tert-Amyl Methyl Ether (TAME)	✓		1	grab	EPA 8260B	2.0 ug/l				
14. Naphthalene	✓		1	grab	EPA 8260B	5.0 ug/l				
15. Carbon Tetra-chloride	✓		1	grab	EPA 8260B	1.0 ug/l				
16. 1,4 Dichlorobenzene	✓		1	grab	EPA 8260B	1.0 ug/l				
17. 1,2 Dichlorobenzene	✓		1	grab	EPA 8260B	1.0 ug/l				
18. 1,3 Dichlorobenzene	✓		1	grab	EPA 8260B	1.0 ug/l				
19. 1,1 Dichloroethane	✓		1	grab	EPA 8260B	1.0 ug/l				
20. 1,2 Dichloroethane	✓		1	grab	EPA 8260B	1.0 ug/l				
21. 1,1 Dichloroethylene	✓		1	grab	EPA 8260B	1.0 ug/l				
22. cis-1,2 Dichloro-ethylene	✓		1	grab	EPA 8260B	1.0 ug/l				
23. Dichloromethane (Methylene Chloride)	✓		1	grab	EPA 8260B	2.0 ug/l				
24. Tetrachloroethylene	✓		1	grab	EPA 8260B	1.0 ug/l				

[5] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	✓		1	grab	EPA 8260B	1.0 ug/l				
26. 1,1,2 Trichloroethane	✓		1	grab	EPA 8260B	1.0 ug/l				
27. Trichloroethylene	✓		1	grab	EPA 8260B	1.0 ug/l				
28. Vinyl Chloride	✓		1	grab	EPA 8260B	1.0 ug/l				
29. Acetone	✓		1	grab	EPA 8260B	5.0 ug/l				
30. 1,4 Dioxane	✓		1	grab	EPA 8260B	25.0 ug/l				
31. Total Phenols	✓		1	grab	EPA 8270C	5.0 ug/l				
32. Pentachlorophenol	✓		1	grab	EPA 8270C	10.0 ug/l				
33. Total Phthalates [6] (Phthalate esthers)	✓		1	grab	EPA 8270C	5.0 ug/l				
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	✓		1	grab	EPA 8270C	5.0 ug/l				
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	✓		2	grab	EPA 8270C	5.0 ug/l				
a. Benzo(a) Anthracene	✓		2	grab	EPA 8270C	5.0 ug/l				
b. Benzo(a) Pyrene	✓		2	grab	EPA 8270C	5.0 ug/l				
c. Benzo(b)Fluoranthene	✓		2	grab	EPA 8270C	5.0 ug/l				
d. Benzo(k) Fluoranthene	✓		2	grab	EPA 8270C	5.0 ug/l				
e. Chrysene	✓		2	grab	EPA 8270C	5.0 ug/l				

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	✓		2	grab	EPA 8270C	5.0 ug/l				
g. Indeno(1,2,3-cd) Pyrene	✓		2	grab	EPA 8270C	5.0 ug/l				
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	✓		2	grab	EPA 8270C	5.0 ug/l				
h. Acenaphthene	✓		2	grab	EPA 8270C	5.0 ug/l				
i. Acenaphthylene	✓		2	grab	EPA 8270C	5.0 ug/l				
j. Anthracene	✓		2	grab	EPA 8270C	5.0 ug/l				
k. Benzo(ghi) Perylene	✓		2	grab	EPA 8270C	5.0 ug/l				
l. Fluoranthene	✓		2	grab	EPA 8270C	5.0 ug/l				
m. Fluorene	✓		2	grab	EPA 8270C	5.0 ug/l				
n. Naphthalene-	✓		2	grab	EPA 8270C	5.0 ug/l				
o. Phenanthrene	✓		2	grab	EPA 8270C	5.0 ug/l				
p. Pyrene	✓		2	grab	EPA 8270C	5.0 ug/l				
37. Total Polychlorinated Biphenyls (PCBs)	✓		1	grab	SW846 8082	0.31 ug/l				
38. Antimony	✓		2	grab	SW846 610B	6.0 ug/l				
39. Arsenic		✓	2	grab	SW846 3010A	10.0 ugl	41.3	0.0361	41.3	0.0241
40. Cadmium	✓		2	grab	SW846 3010A	4.0 ug/l				
41. Chromium III	✓		2	grab	SW846 3010A	10.0 ug/l				
42. Chromium VI	✓		1	grab	SW846 7196A	0.010 ug/l				

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	✓		2	grab	SW846 6010B	25.0 ug/l				
44. Lead		✓	2	grab	SW846 6010B	5.0 ug/l	22.1ug/l	0.0193	22.1 ug/l	0.0129
45. Mercury	✓		2	grab	SW846 7470A	0,20 ug/l				
46. Nickel	✓		2	grab	SW846 6010B	40.0 ug/l				
47. Selenium	✓		2	grab	SW846 6010B	10.0 ug/l				
48. Silver	✓		2	grab	SW946 6010B	5.0 ug/l				
49. Zinc	✓									
50. Iron		✓	2	grab	SW846 6010B	100.0 ug/l	3480 ug/l	3.047	3480	2.0316
Other (describe):										

c) For discharges where **metals** are believed present, please fill out the following:

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y_✓_ N____	If yes, which metals? arsenic, lead,iron
Step 2: For any metals which have **reasonable potential** to 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? Metals:_____ DF: _____	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 "Yes," list which metals: arsenic,lead,iron

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:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ✓	Air stripper	Oil/water separator	Equalization tanks	Bag filter ✓	GAC filter
	Chlorination	Dechlorination	Other (please describe): green sand media			
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 50 gpm Maximum flow rate of treatment system 75 gpm Design flow rate of treatment system 75 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____	Within facility__	Storm drain ✓	River/brook____	Wetlands_____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Storm drain to Sales Creek at Belle Isle Inlet to Boston Harbor						
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 SB,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water NA/ TIDAL 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? Yes____ No____ If yes, for which pollutant(s)? Is there a TMDL? Yes ✓ No____ If yes, for which pollutant(s)? Priority Organics,Pathoens						

6. Results of Consultation with Federal Services: Please provide the following information according to requirements of Part I.B.4 and Appendices II and VII.

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes___ No ✓
Has any consultation with the federal services been completed ? Yes ✓ No___ or is consultation underway? Yes ____ No____
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? ✓ or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No_____

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:

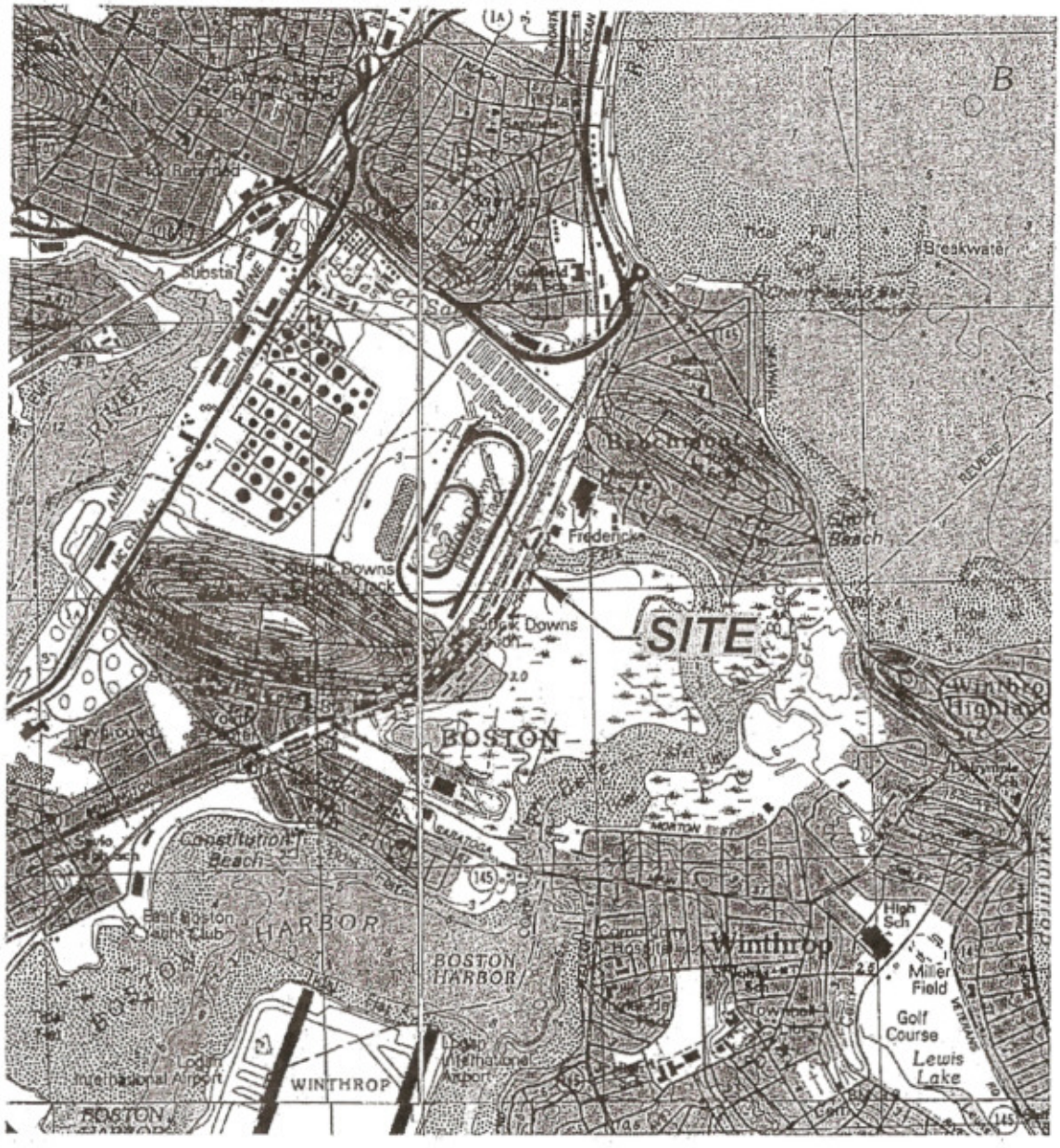
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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: MWRA SECTION 97A BENNINGTON STREET REVERE / EAST BOSTON MA.

Operator signature: Mark Crumpen

Title: Project Manager

Date: 3/26/09



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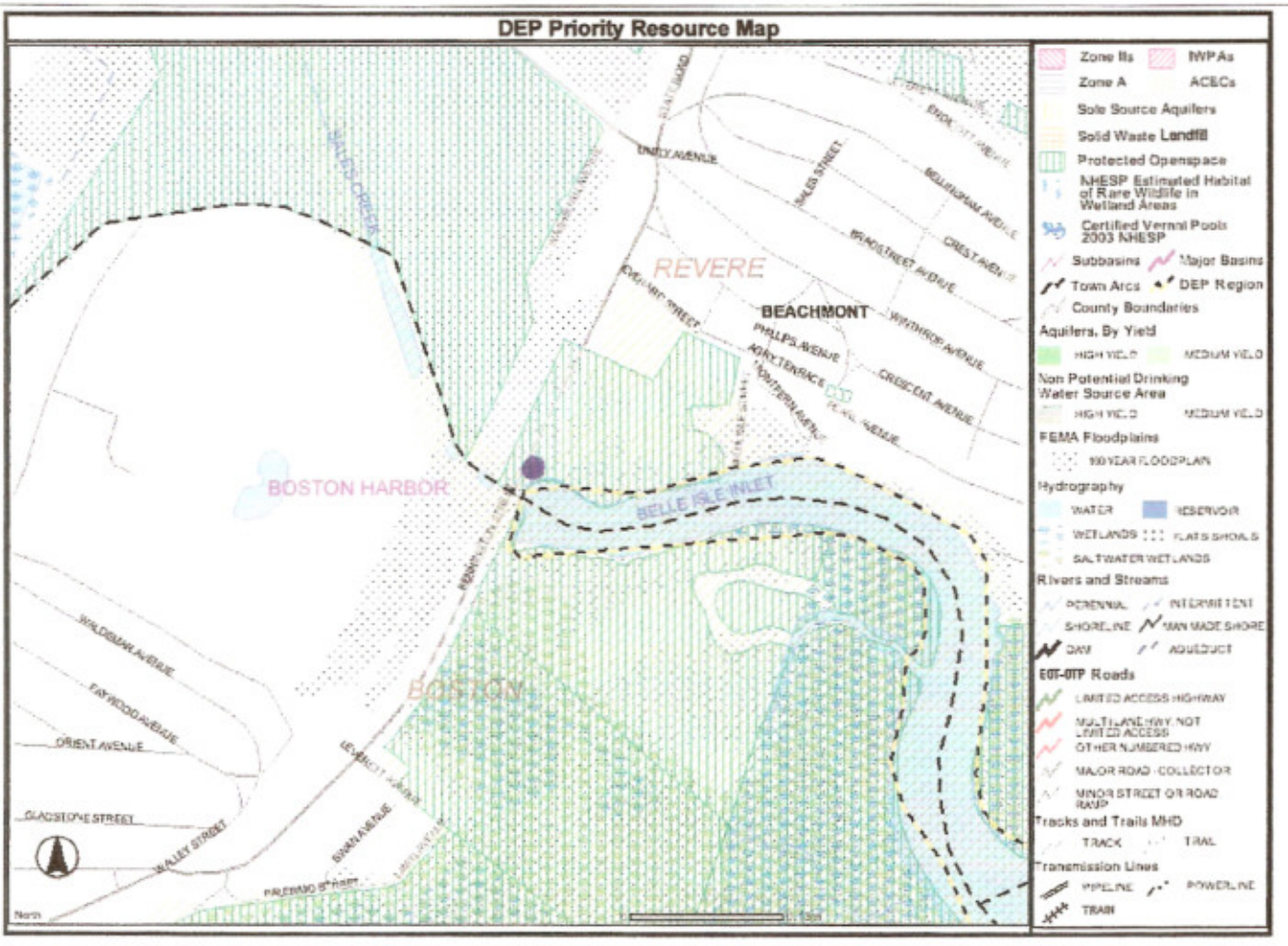
SCALE, FEET

This Image provided by MassGIS is from U.S.G.S.
Topographic 7.5 X 15 Minute Series
Boston North and Lynn, MA Quadrangles.
Datum is National Geodetic Vertical Datum (NGVD).
Contour Interval is 3 Meters.

MASSACHUSETTS
QUADRANGLE LOCATION

MWRA Section 97A Extension East Boston, Massachusetts	GEI Consultants	SITE LOCATION MAP
Green International Affiliates, Inc. Medford, Massachusetts	Project 06387-0	March 2007 Fig. 1

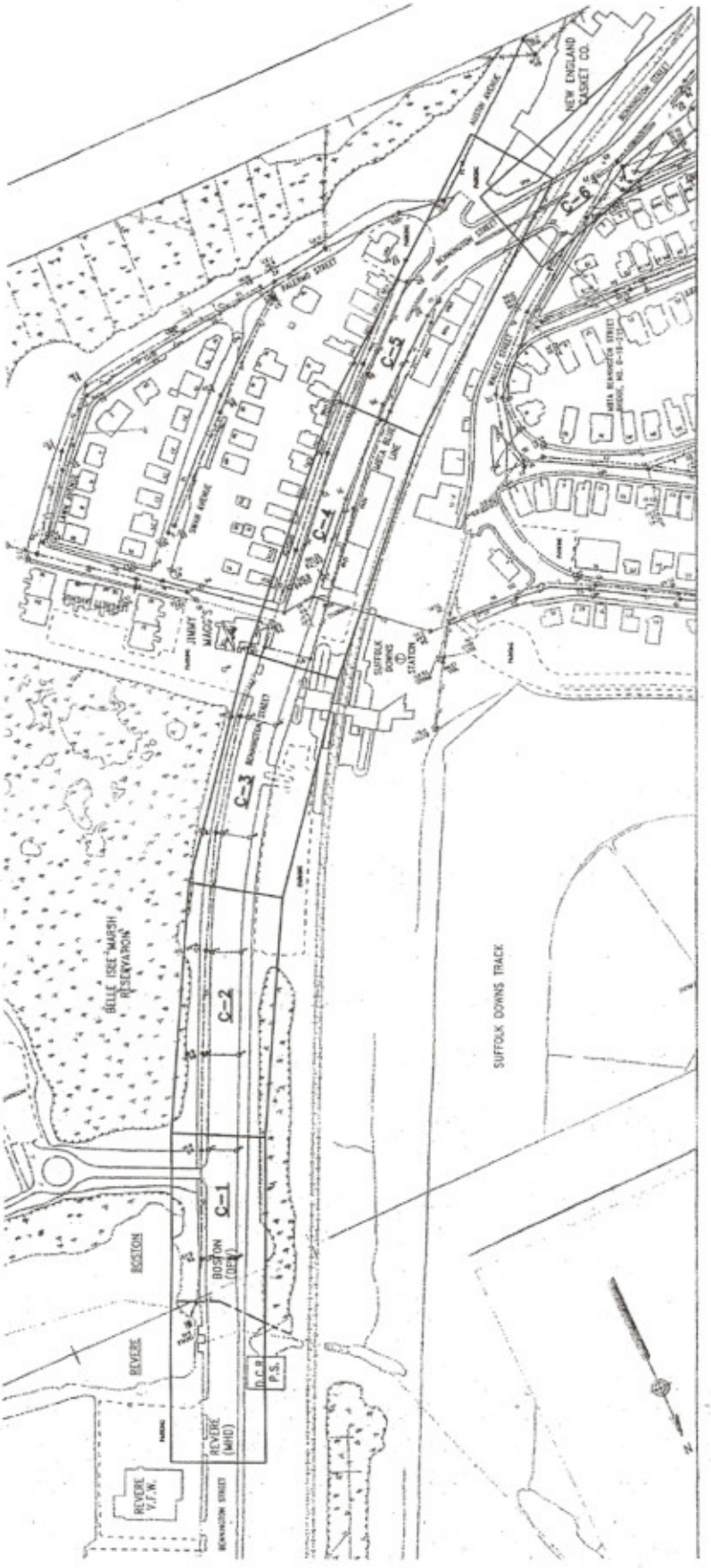
063870-01 djm 2/16/07



EFFLUENT DISCHARGE POINT MWRA CONTRACT 7021 SECTION 97 A BENNINGTON STREET RTE 145 REVERE / EAST BOSTON MA

ENVIRONMENTAL MANAGEMENT PROFESSIONALS, INC.

Attachment B, Addendum No. 15, Item 15-12



LOCATION PLAN

N.T.S.

MASSACHUSETTS WATER RESOURCES AUTHORITY

ENGINEERING AND CONSTRUCTION DEPARTMENT
DESIGN INFORMATION SYSTEMS CENTER

NORTHERN HIGH SERVICE
SECTION 97A WATER MAIN EXTENSION

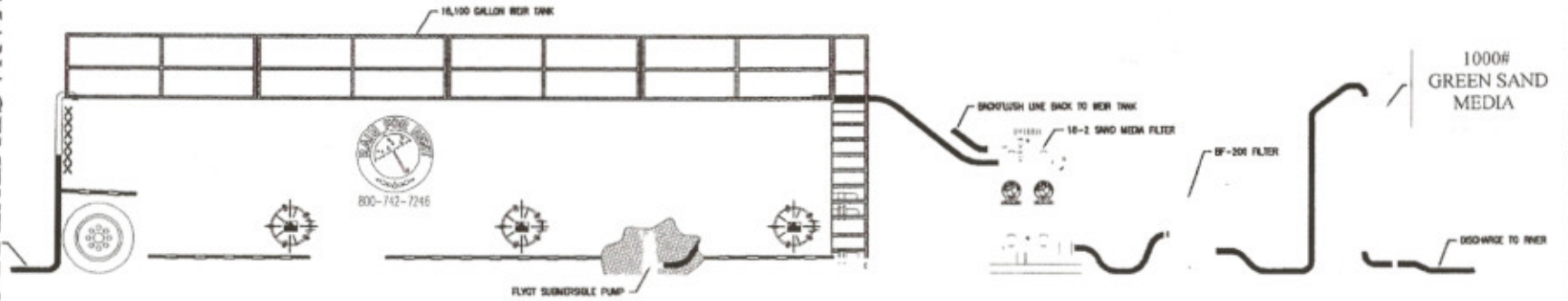
LOCUS PLAN

DRAWING NO. G-1

REV.NO.	DESCRIPTION	PREVIOUS DWG	BY	DATE

ITEM	QTY.	REF.	DESCRIPTION

ENVIRONMENTAL MANAGEMENT PROFESSIONALS, INC.



PLAN VIEW

6-9-08
NTS
M.DELMONTE
K.DUDLEY
S.HERNANDEZ

D

FILTRATION LAYOUT

EMP

Rain For Rent
Engineering

1 of 1

106990

1060618

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2	Date Sampled:	01/25/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	SW846 8260B	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	P14636.D	1	02/07/07	CH	n/a	n/a	MSP495
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2	**Date Sampled:**	01/25/07
Matrix:	AQ - Ground Water	**Date Received:**	01/26/07
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	MWRA 97A Boston MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
60-29-7	Ethyl Ether	ND	5.0	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
75-65-0	Tert Butyl Alcohol	ND	100	ug/l	
637-92-3	tert-Butyl Ethyl Ether	ND	2.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
109-99-9	Tetrahydrofuran	ND	10	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2	Date Sampled:	01/25/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	SW846 8260B	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

VOA MCP List

CAS No.	Compound	Result	RL	Units	Q
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	122%		83-127%
2037-26-5	Toluene-D8	102%		89-112%
460-00-4	4-Bromofluorobenzene	102%		81-119%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2	**Date Sampled:**	01/25/07
Matrix:	AQ - Ground Water	**Date Received:**	01/26/07
Method:	MADEP VPH REV 1.1	**Percent Solids:**	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BD11187.D	1	02/01/07	AF	n/a	n/a	GBD543
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

MA-VPH List

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	ND	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	3.0	ug/l	
108-88-3	Toluene	ND	2.0	ug/l	
	m,p-Xylene	ND	2.0	ug/l	
95-47-6	o-Xylene	ND	2.0	ug/l	
	C5- C8 Aliphatics (Unadj.)	ND	50	ug/l	
	C9- C12 Aliphatics (Unadj.)	ND	50	ug/l	
	C9- C10 Aromatics (Unadj.)	ND	50	ug/l	
	C5- C8 Aliphatics	ND	50	ug/l	
	C9- C12 Aliphatics	ND	50	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
615-59-8	2,5-Dibromotoluene	100%		70-130%
615-59-8	2,5-Dibromotoluene	87%		70-130%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

3.3

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2	**Date Sampled:**	01/25/07
Matrix:	AQ - Ground Water	**Date Received:**	01/26/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	41.3	10	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Cadmium	< 4.0	4.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Lead	22.1	5.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Mercury	< 0.20	0.20	ug/l	1	02/01/07	02/02/07	MA	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 10	10	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Silver	< 5.0	5.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA7803
(2) Instrument QC Batch: MA7811
(3) Prep QC Batch: MP9886
(4) Prep QC Batch: MP9888

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.3

3

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2	Date Sampled:	01/25/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	01/29/07 15:02	MA	EPA 335.3

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

3.4

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2A	Date Sampled:	01/25/07
Matrix:	AQ - Groundwater Filtered	Date Received:	01/26/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Arsenic	39.7	10	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Barium	< 200	200	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Cadmium	< 4.0	4.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Chromium	< 10	10	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Lead	17.7	5.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Mercury	< 0.20	0.20	ug/l	1	02/01/07	02/02/07	MA	SW846 7470A [1]	SW846 7470A [4]
Selenium	< 10	10	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]
Silver	< 5.0	5.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [2]	SW846 3010A [3]

(1) Instrument QC Batch: MA7803
(2) Instrument QC Batch: MA7811
(3) Prep QC Batch: MP9886
(4) Prep QC Batch: MP9888

RL = Reporting Limit

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-4	Date Sampled:	01/26/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F26281.D	1	02/06/07	PN	01/30/07	OP12874	MSF1295
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
83-32-9	Acenaphthene	ND	5.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	ug/l	
98-86-2	Acetophenone	ND	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
120-12-7	Anthracene	ND	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
218-01-9	Chrysene	ND	5.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-4	Date Sampled:	01/26/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	MADEP EPH REV 1.1 SW846 3510C	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BC12165.D	1	02/06/07	DG	02/01/07	OP12898	GBC665
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	5.2	ug/l	
208-96-8	Acenaphthylene	ND	5.2	ug/l	
120-12-7	Anthracene	ND	5.2	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.2	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.2	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.2	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.2	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.2	ug/l	
218-01-9	Chrysene	ND	5.2	ug/l	
53-70-3	Dibenz(a,h)anthracene	ND	5.2	ug/l	
206-44-0	Fluoranthene	ND	5.2	ug/l	
86-73-7	Fluorene	ND	5.2	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.2	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.2	ug/l	
91-20-3	Naphthalene	ND	5.2	ug/l	
85-01-8	Phenanthrene	ND	5.2	ug/l	
129-00-0	Pyrene	ND	5.2	ug/l	
	C11-C22 Aromatics (Unadj.)	ND	100	ug/l	
	C9-C18 Aliphatics	ND	100	ug/l	
	C19-C36 Aliphatics	ND	100	ug/l	
	C11-C22 Aromatics	ND	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
84-15-1	o-Terphenyl	94%		40-140%
321-60-8	2-Fluorobiphenyl	94%		40-140%
3386-33-2	1-Chlorooctadecane	50%		40-140%
580-13-2	2-Bromonaphthalene	89%		40-140%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

3.7

3

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-4	Date Sampled:	01/26/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	SW846-8015 SW846 3510C	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	GH48235.D	1	02/14/07	SL	02/01/07	OP12977	GGH3489
Run #2							

	Initial Volume	Final Volume
Run #1	970 ml	2.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	TPH-DRO (Semi-VOA)	ND	0.21	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
3386-33-2	1-Chlorooctadecane	95%		40-142%

(a) Unfractionated Massachusetts EPH extract used for analysis.

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

3.10 3

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-6	Date Sampled:	01/25/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	SW846 8082 SW846 3510C	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BE3725.D	1	01/30/07	ME	01/29/07	OP12871	GBE156
Run #2							

	Initial Volume	Final Volume
Run #1	800 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.31	ug/l	
11104-28-2	Aroclor 1221	ND	0.31	ug/l	
11141-16-5	Aroclor 1232	ND	0.31	ug/l	
53469-21-9	Aroclor 1242	ND	0.31	ug/l	
12672-29-6	Aroclor 1248	ND	0.31	ug/l	
11097-69-1	Aroclor 1254	ND	0.31	ug/l	
11096-82-5	Aroclor 1260	ND	0.31	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	86%		30-150%
877-09-8	Tetrachloro-m-xylene	82%		30-150%
2051-24-3	Decachlorobiphenyl	94%		30-150%
2051-24-3	Decachlorobiphenyl	63%		30-150%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Chain-of-Custody Record

Laboratory: Accutest

Laboratory Job # (Lab use only) M62456

GEI Consultants
1021 Main Street
Winchester, MA 01890
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: MWRA Section 97A Extension

Project Location: East Boston, MA

Project Number: 063780

Project Manager: Darren Clark

Send Report to: Ray Siegener

Send EDD to: labdata@geiconsultants.com

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MCP PRESUMPTIVE CERTAINTY REQUIRED – YES NO

If Yes, Are MCP Analytical Methods Required? YES NO NA

If Yes, Are Drinking Water Samples Submitted? YES NO NA

If Yes, Have You Met Minimum Field QC Requirements? YES NO NA

Preservative: HCl, HCl, None, NaOH Asc, HNO3, HNO3, HCl, HCl

Analysis

Sample Handling: Samples Field Filtered YES NO NA; Sampled Shipped With Ice YES NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	EPH	TPH	SVOC	TCN	RCRA 8 metals (total)	RCRA 8 metals (dissolved)	VPH	VOC	Sample Specific Remarks
M62456-1 1A	063780-B8	1/25/2007	0853	GW	~~8~~ 7	ABI				x	x	x	x	x	
-2 2A	063780-B1	1/25/2007	0945	GW	~~8~~ 7	ABI				x	x	x	x	x	
-3	063780-B8	1/26/2007	0848	GW	3	ABI	x	x	x						
-4	063780-B1	1/26/2007	0915	GW	3	ABI	x	x	x						

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. [signature]	1/26/07	1030	1. GEI refrigerator
2. [signature]	1/26/07	1580	2. [signature]
3. [signature]	1/26/07	16:15	3. [signature]
4.			4.

Turnaround Time (Business days): Normal ✓ Other ___ 10-Day ___ 7-Day ___ 5-Day ___ 3-Day ___

Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks: Cor 14A, (6F), 5A, 12D, 1D9

2.5°

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M62456: Chain of Custody
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Chain-of-Custody Record

Laboratory: Accutest

Laboratory Job # (Lab use only) M62456

GEI Consultants
1021 Main Street
Winchester, MA 01890
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: MWRA Section 97A Extension

Project Location: East Boston, MA

Project Number: 063780

Project Manager: Darren Clark

Send Report to: Ray Siegener

Send EDD to: labdata@geiconsultants.com

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Preservative: None

Analysis

Sample Handling: Samples Field Filtered (YES) NO NA

Sampled Shipped With Ice (YES) NO

MCP PRESUMPTIVE CERTAINTY REQUIRED – (YES) NO

If Yes, Are MCP Analytical Methods Required? (YES) NO NA

If Yes, Are Drinking Water Samples Submitted? YES (NO) NA

If Yes, Have You Met Minimum Field QC Requirements? (YES) NO NA

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	PCBs								Sample Specific Remarks
M62456-5	063780-B8	1/25/2007	0853	GW	~~8~~ 1	ABI	x								
-6	063780-B1	1/25/2007	0945	GW	~~8~~ 1	ABI	x								
	* 063780-B8	1/26/2007	0848	GW	3	ABI									
	* 063780-B1	1/26/2007	0915	GW	3	ABI									

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. Andrea Igo	1/26/07	1030	1. GEI refrigerator
2. Ray Siegener	1/26/07	1510	2. [signature]
3. [signature]	1/26/07	16:15	3. [signature]
4.			4.

Turnaround Time (Business days): Normal ✓ Other ___ 10-Day ___ 7-Day ___ 5-Day ___ 3-Day ___

Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks:

* No Vol Recd (BT is on Pg 1)

M

2.5°

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M62456: Chain of Custody
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MADEP EPH FORM

Matrix	Aqueous ☑	Soil ☐	Sediment ☐	Other ☐			
Containers	Satisfactory ☑	Broken ☐	Leaking ☐				
Aqueous Preservative	N/A ☐	pH <= 2 ☑	pH > 2 ☐				
Temperature	Received on Ice ☐	Received at 4 Deg. C ☐	Other ☑	Rec'd at 2.5 deg C			
Extraction Method	SW846 3510C						

Method for Ranges:	MADEP EPH REV 1.1	Client ID: 063780-B1		Lab ID: M62456-4
Method for Targets:	MADEP EPH REV 1.1	Date Collected: 1/26/2007		Date Received: 1/26/2007
EPH Surrogate Stds.	Aliphatic: 1-Chlorooctadecane Aromatic: o-Terphenyl	Date Extracted: 2/1/2007	First Date Run: 2/6/2007	Last Date Run: N/A
EPH Fractionation Surrogate Standards.	2-Fluorobiphenyl 2-Bromonaphthalene	% Solids: N/A	Low Dilution: 1	High Dilution: N/A

Unadjusted Ranges	CAS #	Units	Result	RDL	Q
C11-C22 Aromatics (Unadj.)		ug/l	ND A	100	
Diesel PAH Analytes					
2-Methylnaphthalene	91-57-6	ug/l	ND	5.2	
Phenanthrene	85-01-8	ug/l	ND	5.2	
Acenaphthene	83-32-9	ug/l	ND	5.2	
Naphthalene	91-20-3	ug/l	ND	5.2	
Other Target PAH Analytes					
Acenaphthylene	208-96-8	ug/l	ND	5.2	
Anthracene	120-12-7	ug/l	ND	5.2	
Benzo(a)anthracene	56-55-3	ug/l	ND	5.2	
Benzo(a)pyrene	50-32-8	ug/l	ND	5.2	
Benzo(b)fluoranthene	205-99-2	ug/l	ND	5.2	
Benzo(g,h,i)perylene	191-24-2	ug/l	ND	5.2	
Benzo(k)fluoranthene	207-08-9	ug/l	ND	5.2	
Chrysene	218-01-9	ug/l	ND	5.2	
Dibenz(a,h)anthracene	53-70-3	ug/l	ND	5.2	
Fluoranthene	206-44-0	ug/l	ND	5.2	
Fluorene	86-73-7	ug/l	ND	5.2	
Indeno(1,2,3-cd)pyrene	193-39-5	ug/l	ND	5.2	
Pyrene	129-00-0	ug/l	ND	5.2	
Adjusted Ranges					
C9-C18 Aliphatics		ug/l	ND A	100	
C19-C36 Aliphatics		ug/l	ND A	100	
C11-C22 Aromatics		ug/l	ND C	100	

Surrogate Recoveries			Acceptance Range
1-Chlorooctadecane	%	50	40-140 %
o-Terphenyl	%	94	40-140 %
2-Fluorobiphenyl	%	94	40-140 %
2-Bromonaphthalene	%	89	40-140 %

Footnotes

A Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

C Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C11-C22 Aromatic Hydrocarbons exclude the concentration of Target PAH Analytes

Z A 'J' qualifier indicates an estimated value

Were all QA/QC procedures REQUIRED by the EPH Method followed? ☑ Yes ☐ No- Details Attatched

Were all performance/acceptance standards for required QA/QC procedures achieved? ☑ Yes ☐ No- Details Attatched

Were any significant modifications made to the EPH method, as specified in Sect. 11.3? ☑ No ☐ Yes- Details Attatched

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtainig the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Signature Postition Laboratory Director

Printed Name Reza Tand Date 2/9/2007

MADEP VPH FORM

Matrix	Aqueous ☑	Soil ☐	Sediment ☐	Other ☐
Containers	Satisfactory ☑	Broken ☐	Leaking ☐	
Aqueous Preservatives	N/A ☐	pH <= 2 ☑	pH > 2 ☐	
Temperature	Received on Ice ☐	Received at 4 Deg. C ☐	Other ☑	Rec'd at 2.5 deg C
Methanol	N/A			

Method for Ranges: MADEP VPH REV 1.1
Method for Target Analytes: MADEP VPH REV 1.1
VPH Surrogate Standards
PID: 2,5-Dibromotoluene
FID: 2,5-Dibromotoluene

Client ID: 063780-B1 **Lab ID:** M62456-2
Date Collected: 1/25/2007 **Date Received:** 1/26/2007

Date Extracted:	First Date Run:	Last Date Run:
N/A	2/1/2007	N/A
% Solids:	**Low Dilution:**	**High Dilution:**
N/A	1	N/A

Unadjusted Ranges	CAS #	Elution Range	Units	Result	RDL	Q
C5- C8 Aliphatics (Unadj.)		N/A	ug/l	ND A	50	
C9- C10 Aromatics (Unadj.)		N/A	ug/l	ND A	50	
C9- C12 Aliphatics (Unadj.)		N/A	ug/l	ND A	50	
Target Analytes						
Ethylbenzene	100-41-4	C9-C12	ug/l	ND	2	
Toluene	108-88-3	C5-C8	ug/l	ND	2	
Methyl Tert Butyl Ether	1634-04-4	C5-C8	ug/l	ND	2	
Benzene	71-43-2	C5-C8	ug/l	ND	2	
Naphthalene	91-20-3	N/A	ug/l	ND	3	
o-Xylene	95-47-6	C9-C12	ug/l	ND	2	
m,p-Xylene		C9-C12	ug/l	ND	2	
Adjusted Ranges						
C5- C8 Aliphatics		N/A	ug/l	ND B	50	
C9- C12 Aliphatics		N/A	ug/l	ND D	50	

Surrogate Recoveries			Acceptance Range
FID:2,5-Dibromotoluene	%	100	70-130 %
PID:2,5-Dibromotoluene	%	87	70-130 %

Footnotes

A Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range

B Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C5-C8 Aliphatic Hydrocarbons exclude the concentration of Target Analytes eluting in that range.

D Hydrocarbon Range data exclude concentrations of any surrogate(s) and/or internal standards eluting in that range. C9-C12 aliphatic Hydrocarbons exclude conc of Target Analytes eluting in that range AND concentration of C9-C10 Aromatic Hydrocarbons.

Z A 'J' qualifier indicates an estimated value

Were all QA/QC procedures REQUIRED by the VPH Method followed? ☑ Yes ☐ No- Details Attatched
Were all performance/acceptance standards for required QA/QC procedures achieved? ☑ Yes ☐ No- Details Attatched
Were any significant modifications made to the VPH method, as specified in Sect. 11.3? ☑ No ☐ Yes- Details Attatched

I attest under the pains and penalties of perjury that, based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Signature Postition Laboratory Director

Printed Name Reza Tand Date 2/9/2007

ACCUTEST Laboratories M62456

Accutest Laboratories

Report of Analysis

3.3

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2AR	Date Sampled:	01/25/07
Matrix:	AQ - Groundwater Filtered	Date Received:	01/26/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]
Copper	< 25	25	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]
Iron	473	100	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]
Nickel	< 40	40	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA7811
(2) Prep QC Batch: MP9886

RL = Reporting Limit

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-2R	**Date Sampled:**	01/25/07
Matrix:	AQ - Ground Water	**Date Received:**	01/26/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Antimony	< 6.0	6.0	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]
Copper	< 25	25	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]
Iron	3480	100	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]
Nickel	< 40	40	ug/l	1	02/01/07	02/06/07	PY	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA7811
(2) Prep QC Batch: MP9886

RL = Reporting Limit

Chain-of-Custody Record

Laboratory: Accutest

Laboratory Job # (Lab use only) M62456R

GEI Consultants
1021 Main Street
Winchester, MA 01890
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: MWRA Section 97A Extension

Project Location: East Boston, MA

Project Number: 063780

Project Manager: Darren Clark

Send Report to: Ray Siegener

Send EDD to: labdata@geiconsultants.com

Page _1 of _2

Preservative: HCl, HCl, None, NaOH Asc, HNO3, HNO3, HCl, HCl

Analysis

MCP PRESUMPTIVE CERTAINTY REQUIRED -- YES NO

If Yes, Are MCP Analytical Methods Required? YES NO NA

If Yes, Are Drinking Water Samples Submitted? YES NO NA

If Yes, Have You Met Minimum Field QC Requirements? YES NO NA

Sample Handling: Samples Field Filtered YES NO NA; Sampled Shipped With Ice YES NO

Lab Sample Number	GEI Sample ID	Collection Date	Collection Time	Matrix	No. of Bottles	Sampler(s) Initials	EPH	TPH	SVOC	TCN	RCRA 8 metals (total)	RCRA 8 metals (dissolved)	VPH	VOC	Sample Specific Remarks
M62456-1 1A	063780-B8	1/25/2007	0853	GW	~~8~~ 7	ABI				x	x	x	x	x	
-2 2A	063780-B1	1/25/2007	0945	GW	~~8~~ 7	ABI				x	x	x	x	x	
-3	063780-B8	1/26/2007	0848	GW	3	ABI	x	x	x						
-4	063780-B1	1/26/2007	0915	GW	3	ABI	x	x	x						

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. [signature]	1/26/07	1030	1. GEI refrigerator
2. [signature]	1/26/07	1580	2. [signature]
3. [signature]	1/26/07	16:15	3. [signature]
4.			4.

Turnaround Time (Business days): Normal ✓ Other ___ 10-Day ___ 7-Day ___ 5-Day ___ 3-Day ___

Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks: Loc 14A, (6F), 5A, 12D, 10D

2.5°

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4.1 4

M62456R: Chain of Custody
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Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62381-3A	Date Sampled:	01/24/07
Matrix:	AQ - Groundwater Filtered	Date Received:	01/24/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	01/25/07 09:25	CF	SW846 7196A

RL = Reporting Limit

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62381-3	**Date Sampled:**	01/24/07
Matrix:	AQ - Ground Water	**Date Received:**	01/24/07
		Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chromium, Hexavalent	< 0.010	0.010	mg/l	1	01/25/07 09:25	CF	SW846 7196A
Solids, Total Suspended	853	4.0	mg/l	1	01/29/07	BF	EPA 160.2
Total Residual Chlorine	< 0.050	0.050	mg/l	1	01/25/07 08:15	MA	EPA 330.4

RL = Reporting Limit

Chain-of-Custody Record

Laboratory: Accutest

Laboratory Job # M62381 (Lab use only)

GEI Consultants
1021 Main Street
Winchester, MA 01890
PH: 781.721.4000
FX: 781.721.4073

Project Information

Project Name: MWRA Section 97A Extension

Project Location: East Boston, MA

Project Number: 063780

Project Manager: Darren Clark

Send Report to: Ray Siegener

Send EDD to: labdata@geiconsultants.com

Page _1 of _2

Preservative: None, None, None, NaOH Asc, HNO3, HNO3, HCl, HCl

Sample Handling: Samples Field Filtered (YES) NO NA — metals when specified

Sampled Shipped With Ice (YES) NO

MCP PRESUMPTIVE CERTAINTY REQUIRED: YES (NO)

If Yes, Are MCP Analytical Methods Required? (YES) NO NA

If Yes, Are Drinking Water Samples Submitted? YES (NO) NA

If Yes, Have You Met Minimum Field QC Requirements? (YES) NO NA

Lab Sample Number	GEI Sample ID	Date Collected	Time	Matrix	No. of Bottles	Sampler(s) Initials	TSS/TRC	Hexavalent Cr (total)	Hexavalent Cr (Dissolved)	TCN	RCRA 8 metals (total)	RCRA 8 metals (dissolved)	VPH	VOC	Sample Specific Remarks
M62381-1A	063780-B8	1/24/2007	0945	GW	3	ABI	x	x	x						
-2-2A	063780-B5	1/24/2007	1056	GW	14	ABI	x	x	x	x	x	x	x	x	
-3-3A	063780-B1	1/24/2007	1235	GW	3	ABI	x	x	x						

MCP Level Needed: GEI requires the most stringent Method 1 MCP standard be met for all analytes whenever possible.

Relinquished by sampler: (signature)	Date:	Time:	Received by: (signature)
1. Andrea Igo	1/24/07	1400	1. GEI refrigerator
2. GEI refrigerator	1/24/07	1513	2. Andrea Igo
3. Andrea Igo	1/24/07	1514	3.
4.	1830	1/24/07	4.

Turnaround Time (Business days): Normal ✓ Other ___ 10-Day ___ 7-Day ___ 5-Day ___ 3-Day ___

Before submitting rush turnaround samples, you must notify the laboratory to confirm that the TAT can be achieved.

Additional Requirements/Comments/Remarks: Cont. 12A, 1B9, 7C, 6F

2.1°

1/24/2007
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4.1 4

M62381: Chain of Custody
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Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-4	Date Sampled:	01/26/07
Matrix:	AQ - Ground Water	Date Received:	01/26/07
Method:	SW846 8270C SW846 3510C	Percent Solids:	n/a
Project:	MWRA 97A Boston MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F26281.D	1	02/06/07	PN	01/30/07	OP12874	MSF1295
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
65-85-0	Benzoic Acid	ND	10	ug/l	
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	10	ug/l	
120-83-2	2,4-Dichlorophenol	ND	10	ug/l	
105-67-9	2,4-Dimethylphenol	ND	10	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
95-48-7	2-Methylphenol	ND	10	ug/l	
	3&4-Methylphenol	ND	10	ug/l	
88-75-5	2-Nitrophenol	ND	10	ug/l	
100-02-7	4-Nitrophenol	ND	20	ug/l	
87-86-5	Pentachlorophenol	ND	10	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	10	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	10	ug/l	
83-32-9	Acenaphthene	ND	5.0	ug/l	
208-96-8	Acenaphthylene	ND	5.0	ug/l	
98-86-2	Acetophenone	ND	10	ug/l	
62-53-3	Aniline	ND	10	ug/l	
120-12-7	Anthracene	ND	5.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	5.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	5.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	5.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	5.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	5.0	ug/l	
101-55-3	4-Bromophenyl phenyl ether	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	5.0	ug/l	
91-58-7	2-Chloronaphthalene	ND	5.0	ug/l	
106-47-8	4-Chloroaniline	ND	10	ug/l	
218-01-9	Chrysene	ND	5.0	ug/l	
111-91-1	bis(2-Chloroethoxy)methane	ND	5.0	ug/l	
111-44-4	bis(2-Chloroethyl)ether	ND	5.0	ug/l	
108-60-1	bis(2-Chloroisopropyl)ether	ND	5.0	ug/l	

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	063780-B1		
Lab Sample ID:	M62456-4	**Date Sampled:**	01/26/07
Matrix:	AQ - Ground Water	**Date Received:**	01/26/07
Method:	SW846 8270C SW846 3510C	**Percent Solids:**	n/a
Project:	MWRA 97A Boston MA		

ABN MCP List

CAS No.	Compound	Result	RL	Units	Q
95-50-1	1,2-Dichlorobenzene	ND	5.0	ug/l	
122-66-7	1,2-Diphenylhydrazine	ND	5.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	5.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	5.0	ug/l	
121-14-2	2,4-Dinitrotoluene	ND	10	ug/l	
606-20-2	2,6-Dinitrotoluene	ND	10	ug/l	
91-94-1	3,3'-Dichlorobenzidine	ND	5.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	5.0	ug/l	
132-64-9	Dibenzofuran	ND	5.0	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	ug/l	
206-44-0	Fluoranthene	ND	5.0	ug/l	
86-73-7	Fluorene	ND	5.0	ug/l	
118-74-1	Hexachlorobenzene	ND	5.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
77-47-4	Hexachlorocyclopentadiene	ND	10	ug/l	
67-72-1	Hexachloroethane	ND	5.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	5.0	ug/l	
78-59-1	Isophorone	ND	5.0	ug/l	
91-57-6	2-Methylnaphthalene	ND	5.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
98-95-3	Nitrobenzene	ND	5.0	ug/l	
621-64-7	N-Nitroso-di-n-propylamine	ND	5.0	ug/l	
86-30-6	N-Nitrosodiphenylamine	ND	5.0	ug/l	
85-01-8	Phenanthrene	ND	5.0	ug/l	
129-00-0	Pyrene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	45%		15-110%
4165-62-2	Phenol-d5	35%		15-110%
118-79-6	2,4,6-Tribromophenol	48%		15-110%
4165-60-0	Nitrobenzene-d5	33%		30-130%
321-60-8	2-Fluorobiphenyl	31%		31-116%
1718-51-0	Terphenyl-d14	32%		30-124%

ND = Not detected
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound