UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

JUL 22 2013

Sherry Clancy
Project Manager
Ink Block LLC
2310 Washington Street
Newton Lowell Falls, MA 02462

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Ink Block building construction site located at 300-350 Harrison Avenue, Boston, MA 02118, Suffolk County; Authorization # MAG910585

Dear Ms. Clancy:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Ink Block LLC, by the firm GZA Geo Environmental, Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and 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 exceeded Appendix III limits. Also, please note that the metal included on the checklist is a dilution dependent pollutant and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. With the absence of dilution of freshwater into tidal water, EPA determined that the Dilution Factor Range (DFR) for this metal for this site is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the iron limit of 1,000 ug/L, is 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 July 1, 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,

for Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Paul Canavan, Director Engineering Services BWSC

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910585**
Authorization Issued:	July, 2013
Facility/Site Name:	Ink Block Building Construction
Facility/Site Address:	300-350 Harrison Avenue, Boston, MA 02118, Suffolk County
	Email address of owner: sclancy@natdev.com
Legal Name of Operator:	Ink Block-authorized signature/ Site LSP Cranshaw Construction/ Tom Burke Operator
Operator contact name, title, and Address:	Sherry Clancy, 2310 Washington Street, Newton Lower Falls, MA 02462, Suffolk County
	Email: Same as of the owner
Estimated date of The Project Completion:	July1, 2014
Category and Sub-Category:	Category III- Contaminated Construction Dewatering. Sub-category Urban Fill Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	Fort Point Channel - Boston Harbor

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

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing ** Me#160.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [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/

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
		ML 2ug/L
√	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L
	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
	13. tert-Amyl Methyl Ether (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

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	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/ML5ug/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/ML5ug/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 parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11/12]	Minimum level=ML

		Freshwater	Saltwater		
	39. Antimony	5.6/ML 10			
	40. Arsenic **	10/ML20	36/ML 20		
	41. Cadmium **	0.2/ML10	8.9/ML 10		
	42. Chromium III (trivalent) **	48.8/ML15	100/ML 15		
	43. Chromium VI (hexavalent) **	11.4/ML10	50.3/ML 10		
	44. Copper **	5.2/ML15	3.7/ML 15		
	45. Lead **	1.3/ML20	8.5/ML 20		
	46. Mercury **	0.9/ML0.2	1.1/ML 0.2		
	47. Nickel **	29/ML20	8.2/ML 20		
	48. Selenium **	5/ML20	71/ML 20		
	49. Silver	1.2/ML10	2.2/ML 10		
	50. Zinc **	66.6/ML15	85.6/ML 15		
√	51. Iron	1,000/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 x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[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

GZA
GeoEnvironmental, Inc.

Engineers and
Scientists

June 28, 2013
File No. 01.0019359.75

Mr. Victor Alvarez
United States Environmental Protection Agency – Region 1
1 Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

249 Vanderbilt Ave
Norwood
Massachusetts
02062
781-278-3700
FAX 781-278-5701
http://www.gza.com

Re: Submittal of Notice of Intent (NOI)
Remedial General Permit
Ink Block, 300-350 Harrison Avenue
Boston, Massachusetts

Dear Mr. Alvarez:

On behalf of our client, Ink Block LLC, GZA GeoEnvironmental, Inc. (GZA) is submitting the attached Notice of Intent (NOI) form (Attachment 1) for the Remedial General Permit (RGP) for the Ink Block project (the Site) located in Boston, Massachusetts.

BACKGROUND

The Site is 6.22 acres located at 300 Harrison Avenue and is bounded by Herald Street to the north, Albany Street to the east, Traveler Street to the south and Harrison Avenue to the west. A site locus plan is included as Figure 1 (Attachment 2), and a site plan is shown on Figure 2 (Attachment 3). The Owner intends to renovate the existing building and construct two additional buildings within the existing parking areas, each of which will have a one-level basement below a portion of the building. Building 1, located on Herald Street, will have an approximately 2,000 square foot (SF) basement, and Building 3, located on Harrison Avenue, will have an approximately 7,000 SF basement.

It is anticipated that construction dewatering will be required to control groundwater during basement excavation. Basement excavations are anticipated to extend about 1 to 5 feet below the existing groundwater level. Excavation dewatering will be necessary while these excavations are open.

The proposed discharge point is yet to be determined. However, it will be limited to the following:

a. The storm sewer located in the northwest corner of the property on Herald Street near the corner of Harrison Avenue (CB# 77).

b. The storm sewer located on the west side of the property on Harrison Ave approximately half way between Herald and Traveler Streets (CB# 66).

c. The storm sewer located on the southwest corner of the property on Harrison Avenue near the corner of Traveler Street (CB# 56).

d. The storm sewer located on the south side of the property on Traveler Street approximately half way between Harrison Avenue and Albany Street (CB# 83 & 85).

The above discharge points are shown in Figure 2 (Attachment 3) and all discharge into the same combined sewer overflow (CSO) below Albany Street. According to wastewater system maps obtained from the Boston Water and Sewer Commission (BWSC), the combined stormwater/sewer lines adjacent to the site have been determined to ultimately outlet into the Fort Point Channel as shown in Figure 3 (Attachment 4).

Dewatering will be accomplished using submersible pumps which will discharge to a sedimentation tank. Sedimentation tank specifications and a schematic are attached in Figure 4 (Attachment 5). The sedimentation tank will include a sorbent boom located near the tank outlet to aid in removing petroleum contaminants if they are encountered. The tank will be accessible for maintenance, monitoring, and sampling purposes.

The sedimentation tank will hold 10,000 gallons and will be constructed to include baffles. The tank size was based on an assumed maximum pumping rate of 100 gallons per minute (gpm). The actual pumping rate may vary due to the size and depth of well/sumps and hydrogeologic characteristics of the soil/fill material. In addition to the sedimentation tank, water will be pumped through a bag filter prior to discharge. The bag filter will be replaced periodically and the tank will be cleaned out when sediments accumulate to a depth equal to one-quarter of the liquid level. A flow meter will be installed so that the discharge quantity can be observed. The tank shall have a removable cover to facilitate sediment removal and will be equipped with sample ports to obtain discharge samples.

NOTICE OF INTENT

This NOI has included a review of literature pertaining to Areas of Critical Environmental Concern (ACEC), Endangered Species Act (ESA), and the National Historic Preservation Act (NHPA), as documented below:

- Review of Appendix I "Areas of Critical Environmental Concern" (June 2009) found that the Site does not discharge to an ACEC.
- Review of Appendix II "Federally Listed Endangered and Threatened Species in Massachusetts" (July 2008) found that there are no listed species in the City of Boston, Massachusetts.
- Review of the Interactive Priority and Estimated Habitats provided by the MassWildlife online viewer (2008) shows that neither the Site nor the discharge point are located within a National Heritage & Endangered Species Program (NHESP) Priority Habitats of Rare Species area or Estimated Habitats of Rare Wildlife area. Therefore, permit eligibility meets "Criterion A." As shown on the map generated by the MassWildlife online viewer, which can be found in Attachment 6, no Priority Habitats of Rare Species or Estimated Habitats of Rare Wildlife areas are located downstream of the discharge location.
- An electronic review of the Massachusetts Cultural Resource Information System database, made available through Massachusetts Historical Commission, found no area, building, burial ground, object, or structure is known to be located on the Site.

The documentation of this review can be found in Attachment 7. In addition, this project involves new construction and the demolition of existing buildings, and historic properties are not affected by the discharge or identified in the path of the discharge; therefore, permit eligibility meets "Criterion 2."

- Laboratory analytical results shown in Part 3 of Attachment 1 are included as Attachment 8. Groundwater was tested both in January, 2013 and June, 2013 and the results for both are included in this attachment. Groundwater samples were taken from GZ-3, which is approximately 190 feet from one anticipated excavation are that will require dewatering along Harrison Avenue, and MW-1, which is approximately 30 feet from the second anticipated excavation area that will require dewatering along Herald Street. It should be noted that some of the results were not reported to the required minimum level (ML) of the test method. However, we do not have reason to believe these parameters are present in the groundwater based on historical use. Additionally, the analyses for pentachlorophynol (PCP) and the phthalates exceeded the hold times. However, the lab reported to us that it was only 1 minute over the hold time.

Please do not hesitate to contact the undersigned at (617) 963-1014 if you have any questions or require further information.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Jennifer A. Lenz
Assistant Project Manager

Bruce W. Fairless
Consultant/Reviewer

Mary B. Hall
Principal

Attachments:
Attachment 1: NOI Form
Attachment 2: Figure 1 – Site Locus Map
Attachment 3: Figure 2 – Site Plan
Attachment 4: Figure 3 – Storm Drain Outfall Location
Attachment 5: Figure 4 – Process Flow Diagram
Attachment 6: NHESP Map
Attachment 7: MHC Report
Attachment 8: Laboratory Analytical Results

cc: MassDEP – Northeastern Region

ATTACHMENT 1

NOI FORM

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

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

a) Name of **facility/site**: Ink Block		**Facility/site** mailing address:		
Location of **facility/site**: longitude: -71.063 latitude: 42.345	Facility SIC code(s):	Street: 300 - 350 Harrison Avenue		
b) Name of **facility/site owner:** Ink Block LLC		Town: Boston		
Email address of facility/site owner: sclancy@natdev.com		State: MA	Zip: 02118	County: Suffolk
Telephone no. of facility/site **owner**: 617-559-5080				
Fax no. of facility/site **owner**: 617-965-7361		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: 2310 Washington Street				
Town: Newton Lower Falls	State: MA	Zip: 02462	County: Suffolk	
c) Legal name of **operator**: Cranshaw Construction	**Operator** telephone no: 617-559-5280			
	Operator fax no.: 617-527-1977	**Operator** email: TBurke@Cranshaw.com		
Operator contact name and title: Tom Burke				
Address of **operator** (if different from owner):	Street: 2310 Washington Street			
Town: Newton Lower Falls	State: MA	Zip: 02462	County: Suffolk	

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

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ○ N ⊙
If Y, please list:
1. site identification # assigned by the state of NH or MA:
2. permit or license # assigned:
3. state agency contact information: name, location, and telephone number:

f) Is the site/facility covered by any other EPA permit, including:
1. Multi-Sector General Permit? Y ○ N ⊙, if Y, number:
2. Final Dewatering General Permit? Y ○ N ⊙, if Y, number:
3. EPA Construction General Permit? Y ○ N ⊙, if Y, number:
4. Individual NPDES permit? Y ○ N ⊙, if Y, number:
5. any other water quality related individual or general permit? Y ○ N ⊙, if Y, number:

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

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

Activity Category	**Activity Sub-Category**
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:

Construction dewatering. Discharge locations are shown on Figure 2

b) Provide the following information about each discharge:

1) Number of discharge points: 5

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow 0.22 Is maximum flow a **design value**? Y ◉ N ○
Average flow (include units) 0.17 Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:

pt.1: lat.	42.3463	long.	-71.0630	pt.2: lat.	42.3455	long.	-71.0634 ;
pt.3: lat.	42.3446	long.	-71.0638	pt.4: lat.	42.3443	long.	-71.0628 ;
pt.5: lat.	42.3443	long.	-71.0628	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 7/1/2013 end 7/1/2014

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).

Outlet location and receiving water is shown on Figure 3. A process flow diagram for dewatering discharge is provided as Figure 4.

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.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids (TSS)		☐	☒	1	grab	30,2540D	5000 ug/l	42000 ug/l			
2. Total Residual Chlorine (TRC)		☒	☐	1	grab	30,4500-ClE	200 ug/l	<200 ug/l			
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	grab	74,1664A	5000 ug/l	<4000 ug/l			
4. Cyanide (CN)	57125	☒	☐	1	grab	30,4500 CN-CE	5 ug/l	<5 ug/l			
5. Benzene (B)	71432	☒	☐	1	grab	1,8260C	2 ug/l	<0.5 ug/l			
6. Toluene (T)	108883	☐	☒	1	grab	1,8260C	2 ug/l	2.7 ug/l			
7. Ethylbenzene (E)	100414	☒	☐	1	grab	1,8260C	2 ug/l	<0.5 ug/l			
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	grab	1,8260C	4 ug/l	<1 ug/l			
9. Total BTEX [2]	n/a	☐	☒	1	grab	1,8260C	2 ug/l	2.7 ug/l			
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	grab	1,8260C	10 ug/l	<5 ug/l			
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	grab	1,8260C	10 ug/l	<1 ug/l			
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	grab	1,8260C	10 ug/l	<1 ug/l			

***** 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.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐	1	grab	1,8260C	10 ug/l	<2 ug/l			
14. Naphthalene	91203	☒	☐	1	grab	1,8260C	2 ug/l	<2.5 ug/l			
15. Carbon Tetrachloride	56235	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	grab	1,8260C	5 ug/l	<2.5 ug/l			
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	grab	1,8260C	5 ug/l	<2.5 ug/l			
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	grab	1,8260C	5 ug/l	<2.5 ug/l			
18a. Total dichlorobenzene		☒	☐	1	grab	1,8260C	5 ug/l	<2.5 ug/l			
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	grab	1,8260C	5 ug/l	<0.75 ug/l			
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			
23. Methylene Chloride	75092	☒	☐	1	grab	1,8260C	5 ug/l	<3.0 ug/l			
24. Tetrachloroethene (PCE)	127184	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	grab	1,8260C	5 ug/l	<0.75 ug/l			
27. Trichloroethene (TCE)	79016	☒	☐	1	grab	1,8260C	5 ug/l	<0.5 ug/l			

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐	1	grab	1,8260C	5 ug/l	<1.0 ug/l			
29. Acetone	67641	☒	☐	1	grab	1,8260C	50 ug/l	<5 ug/l			
30. 1,4 Dioxane	123911	☒	☐	1	grab	8270D-SIM	5 ug/l	<0.15 ug/l			
31. Total Phenols	108952	☒	☐	1	grab	4,420.1	2 ug/l	<30 ug/l			
32. Pentachlorophenol (PCP)	87865	☒	☐	1	grab	8270C SIM	5	<10 ug/l			
33. Total Phthalates (Phthalate esters) [4]		☒	☐	1	grab	8270C SIM	5	<5 ug/l			
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐	1	grab	8270C SIM	5	<3 ug/l			
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐	1	grab						
a. Benzo(a) Anthracene	56553	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
b. Benzo(a) Pyrene	50328	☒	☐	1	grab	1, 8270D-SIM	0.1 ug/l	<0.2 ug/l			
c. Benzo(b)Fluoranthene	205992	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
d. Benzo(k)Fluoranthene	207089	☒	☐	1	grab	1, 8270D-SI	0.1 ug/l	<0.2 ug/l			
e. Chrysene	21801	☒	☐	1	grab	1, 8270D-SIM	0.1 ug/l	<0.2 ug/l			
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
								concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
h. Acenaphthene	83329	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
i. Acenaphthylene	208968	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
j. Anthracene	120127	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
k. Benzo(ghi) Perylene	191242	☒	☐	1	grab	1, 8270D-SIM	0.1 ug/l	<0.2 ug/l			
l. Fluoranthene	206440	☒	☐	1	grab	1, 8270D-SIM	0.1 ug/l	<0.2 ug/l			
m. Fluorene	86737	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
n. Naphthalene	91203	☒	☐	1	grab	1, 8270D-SIM	0.1 ug/l	<0.2 ug/l			
o. Phenanthrene	85018	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
p. Pyrene	129000	☒	☐	1	grab	MA EPH	5 ug/l	<4.7 ug/l			
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	grab	8082A	0.5	<0.25 ug/l			
38. Chloride	16887006	☐	☒	1	grab	44,300.0	100	2980 ug/l			
39. Antimony	7440360	☒	☐	1	grab	1,6020A	0.5 ug/l	<0.5 ug/l			
40. Arsenic	7440382	☒	☐	1	grab	1,6020A	1 ug/l	<0.5 ug/l			
41. Cadmium	7440439	☒	☐	1	grab	1,6020A	0.2 ug/l	<0.2 ug/l			
42. Chromium III (trivalent)	16065831	☒	☐	1	grab	107,-	1 ug/l	<1 ug/l			
43. Chromium VI (hexavalent)	18540299	☒	☐	1	grab	30,3500CR-	10 ug/l	<10 ug/l			
44. Copper	7440508	☒	☐	1	grab	200.7	15	<10 ug/l			
45. Lead	7439921	☒	☐	1	grab	200.7	20	<10 ug/l			
46. Mercury	7439976	☒	☐	1	grab	3,245.1	0.2 ug/l	<0.2 ug/l			
47. Nickel	7440020	☒	☐	1	grab	1,6020A	0.2 ug/l	<0.5 ug/l			
48. Selenium	7782492	☒	☐	1	grab	1,6020A	2 ug/l	<0.5 ug/l			
49. Silver	7440224	☒	☐	1	grab	200.7	10 ug/l	<5 ug/l			
50. Zinc	7440666	☒	☐	1	grab	1,6020A	5 ug/l	<10 ug/l			
51. Iron	7439896	☐	☒	1	grab	19,200.7	50 ug/l	13000 ug/l			
Other (describe):		☐	☐								

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

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

Step 1: 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? Iron
Step 2: 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: Iron DF: 1 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: 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:

Dewatering will be accomplished using a submersible pump(s) which will discharge to a sedimentation tank (aka Frac Tank). Sedimentation tank specifications and a schematic are attached in Figure 4. The sedimentation tank will include a sorbent boom located near the tank outlet to aid in removing petroleum contaminants if they are encountered. The sedimentation tank will hold 10,000 gallons and will be constructed to include baffles. The tank size was based on an assumed maximum pumping rate of 100 gallons per minute (gpm). The actual pumping rate may vary due to the size and depth of well/sumps and hydrogeologic characteristics of the soil/fill material. In addition to the sedimentation tank, water will be pumped through a bag filter prior to discharge.

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 75 gpm Maximum flow rate of treatment system 100 gpm
Design flow rate of treatment system 100 gpm

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

None

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:

Discharges to a storm drain catch basin which discharges to the Boston Harbor via the Fort Point Channel Outfall location is shown on Figure 3.

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 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.

Groundwater was tested both in January, 2013 and June, 2013 and the results for both are included in this attachment. Groundwater samples were taken from GZ-3, which is approximately 190 feet from one anticipated excavation are that will require dewatering along Harrison Avenue, and MW-1, which is approximately 30 feet from the second anticipated excavation area that will require dewatering along Herald Street. It should be noted that some of the results were not reported to the required minimum level (ML) of the test method. However, we do not have reason to believe these parameters are present in the groundwater based on historical use. Additionally, the analyses for pentachlorophynol (PCP) and the phthalates exceeded the hold times. However, the lab reported to us that it was only 1 minute over the hold time.

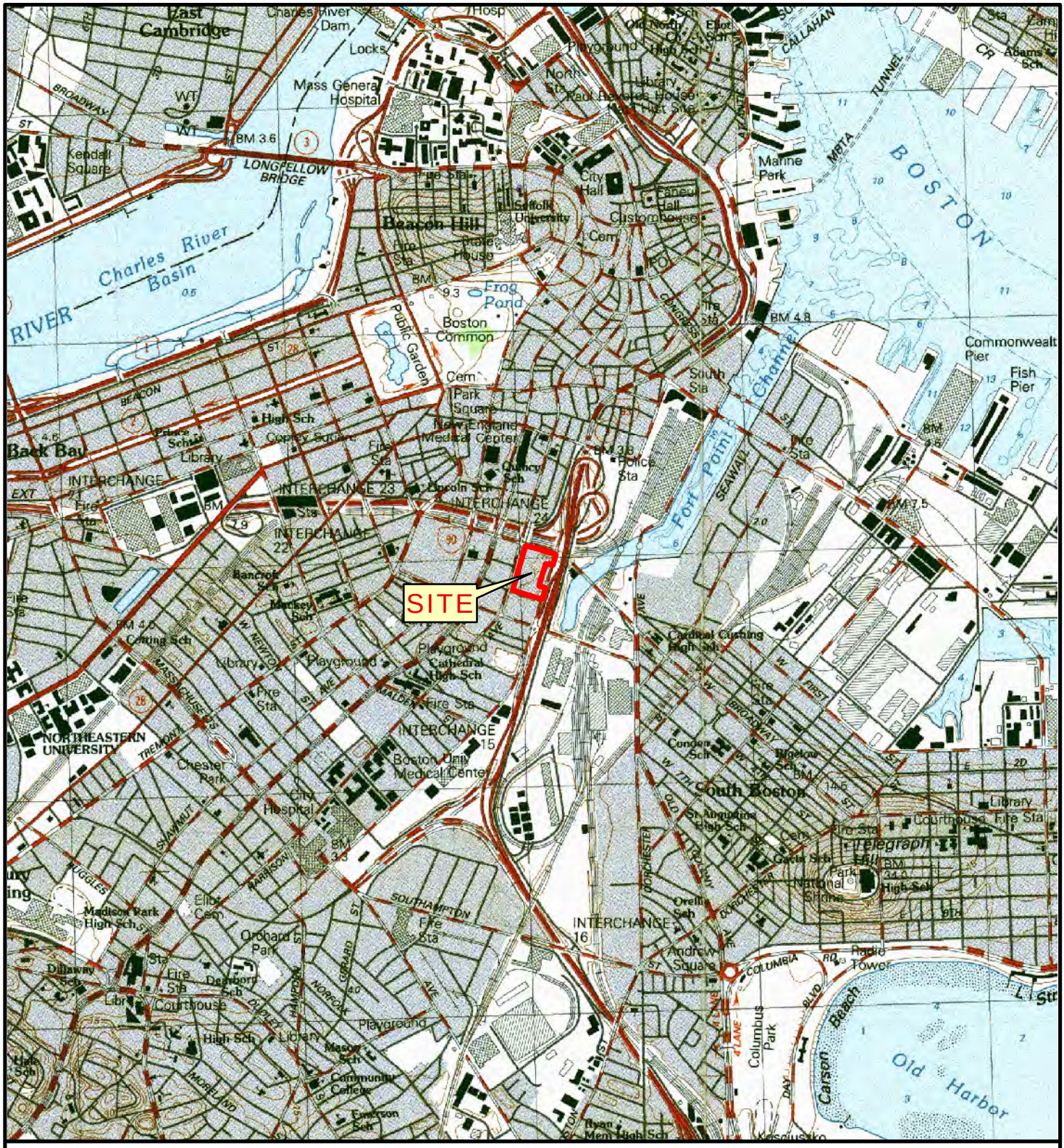
8. Signature Requirements: The Notice of Intent must be signed by the operator in accordance with the signatory requirements of 40 CFR Section 122.22, including the following certification:

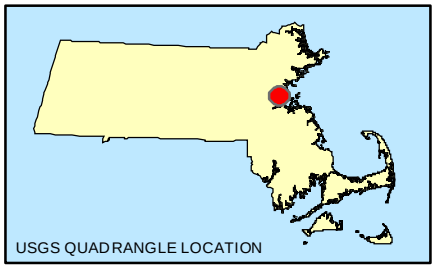
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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:	Ink Block
Operator signature:	Sherry Clancy
Printed Name &Title:	Sherry Clancy, Project Manager
Date:	6/27/13

ATTACHMENT 2

FIGURE 1 – SITE LOCUS MAP





SOURCE : SCANNED USGS TOPOGRAPHIC QUADRANGLES
SCANNED BY THE MASSACHUSETTS EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS, MASSGIS. DISTRIBUTED JUNE, 2001.

Data Supplied by : MASSGIS

0 1,000 2,000 4,000 6,000 Feet

N W E S

PROJ. MGR.: JAL
DESIGNED BY: JAL
REVIEWED BY: MBH
OPERATOR: EMD

DATE: 09-19-2012

SITE LOCUS

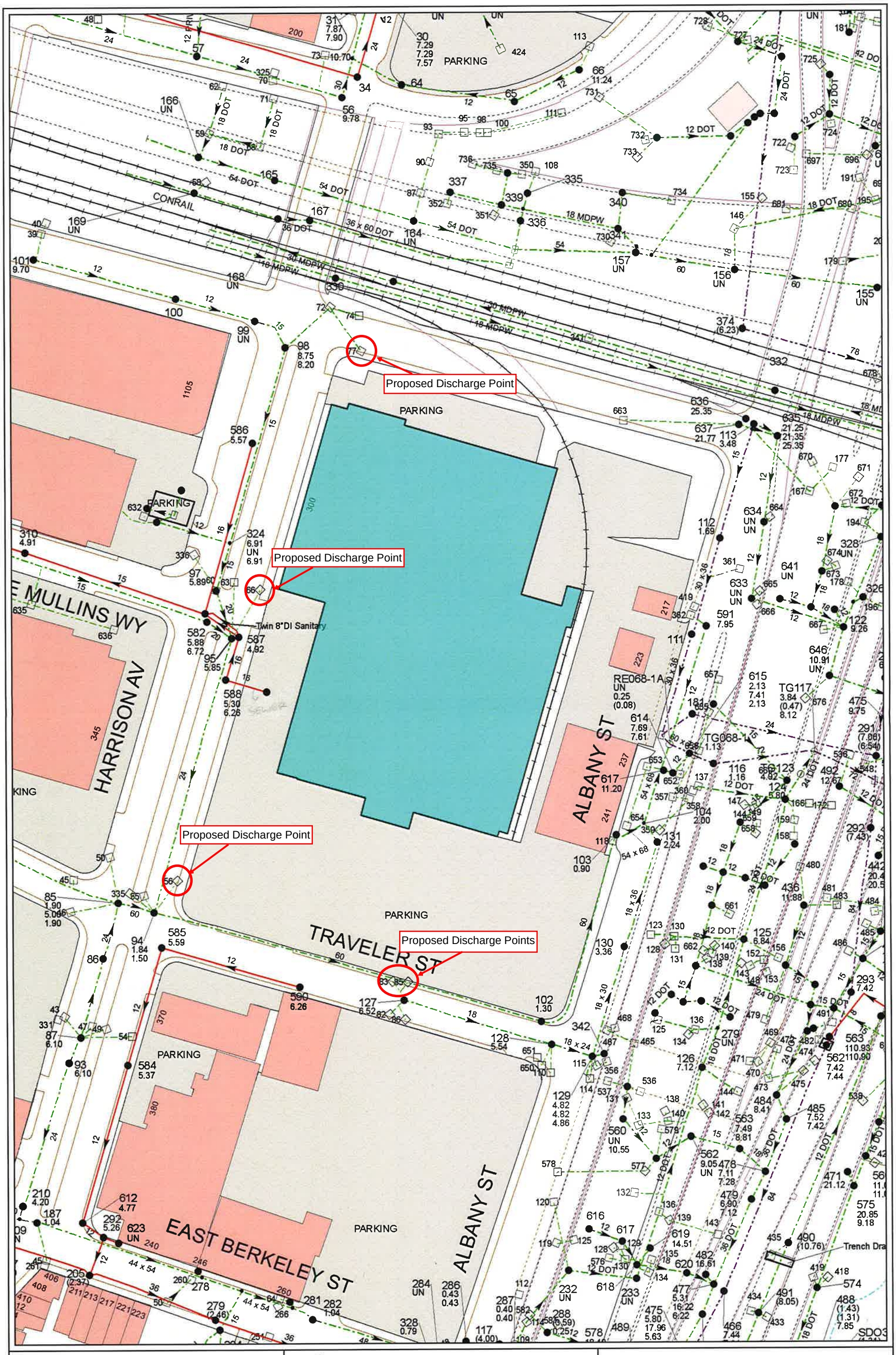
INK BLOCK - FORMER BOSTON HERALD SITE
BOSTON, MASSACHUSETTS

JOB NO. 01.0019359.70

FIGURE NO. 1

ATTACHMENT 3

FIGURE 2 – SITE PLAN



BOSTON WATER AND SEWER

N W E S

25 0 100 200 Feet

1 inch = 100 feet

Figure 2

Proposed Discharge Point

ATTACHMENT 4

FIGURE 3 –OUTFALL DISCHARGE LOCATION

This regulator can allow combined sewage to flow to CSO 068 if the pump station is overwhelmed, typically only stormwater will flow in the 72" pipe and cobined sewage flows in the 24" pipe to pump station

All site drainage ends up in this pipe

CSO 068 Outlet Location

23J	23K	23L
22J	22K	22L
21J	21K	21L

Legend

- Combined
- Combined Sewer Overflow
- Sanitary
- Storm
- Unknown
- Catch Basin

Sewer Service

- Bldg. Service
- Bldg. Storm Drain Service
- Building Roof Leader

Sewer Line

- Combined
- Combined Sewer Overflow
- Sanitary
- Storm

BOSTON WATER AND SEWER COMMISSION

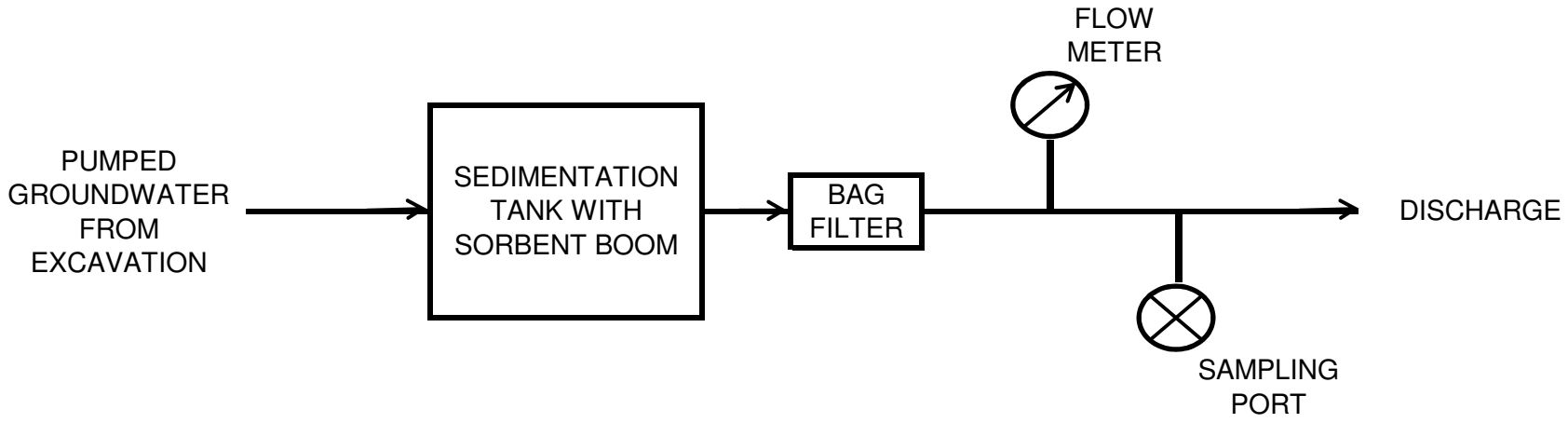
SEWER SYSTEM MAP

CENTRAL\SOUTH END\
SOUTH BOSTON

22K

ATTACHMENT 5

FIGURE 4 – PROCESS FLOW DIAGRAM



DISCHARGE TO STORM DRAIN CATCH BASINS ON HARRISON AVENUE,
TRAVELER OR HERALD STREETS

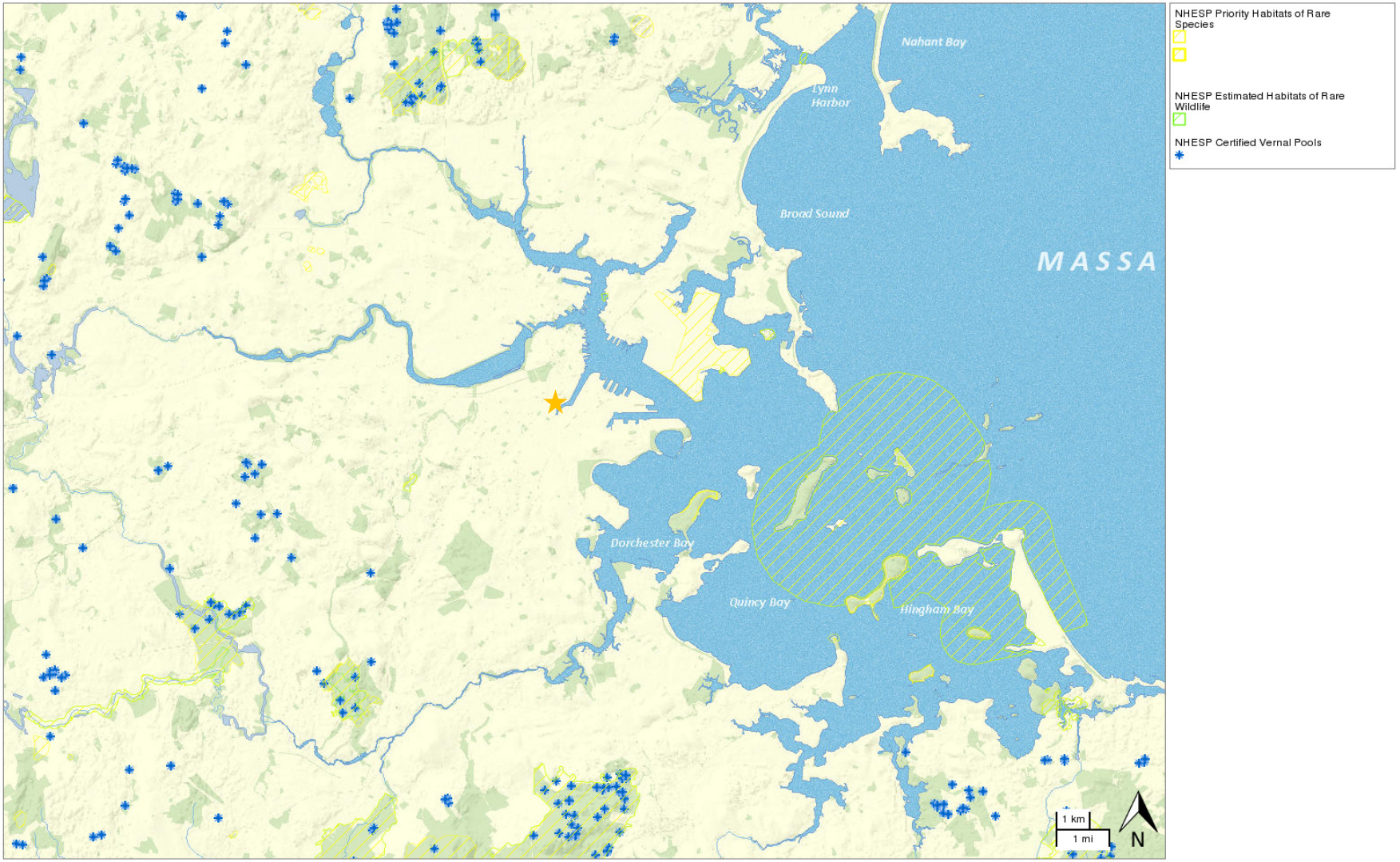
FIGURE 4
PROCESS FLOW DIAGRAM
INK BLOCK
BOSTON, MA

6/24/2013
GZA FILE NO. 01.0019359.71

ATTACHMENT 6

NHESP MAP

Attachment 6



ATTACHMENT 7

MHC REPORT

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Street No: 300; Street Name: Harrison Ave; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

No Results Found

ATTACHMENT 8

LABORATORY ANALYTICAL RESULTS

ANALYTICAL REPORT

Lab Number:	L1311043
Client:	GZA GeoEnvironmental, Inc. 249 Vanderbilt Ave Norwood, MA 02062
ATTN:	Jennifer Lenz
Phone:	(781) 278-3700
Project Name:	INK BLOCK
Project Number:	17359.75
Report Date:	06/26/13

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: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Alpha Sample ID	Client ID	Sample Location	Collection Date/Time
L1311043-01	G.W. (6/17/13)	133 FEDERAL ST. BOSTON, MA	06/17/13 13:45
L1311043-02	TRIP BLANK	133 FEDERAL ST. BOSTON, MA	06/17/13 00:00

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

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 free of charge for 30 days from the date the project is completed. After 30 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.

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

Project Name: INK BLOCK **Lab Number:** L1311043
Project Number: 17359.75 **Report Date:** 06/26/13

Case Narrative (continued)

Report Submission

This report replaces the report issued on June 20, 2013. Phthalates and Pentachlorophenol are now reported for L1311043-01.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Sample Receipt

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

The samples were received below the appropriate pH for the Cyanide analysis. The laboratory added additional NaOH to a pH >12.

The samples were received above the appropriate pH for the TPH analysis. The laboratory added additional HCl to a pH <2.

Semivolatile Organics

L1311043-01 was extracted with the method required holding time exceeded.

Solids, Total Suspended

WG615685: A Laboratory Duplicate could not be performed due to insufficient sample volume available for analysis.

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

Authorized Signature:  Cynthia McQueen

Title: Technical Director/Representative Date: 06/26/13

ORGANICS

VOLATILES

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311043-01
Client ID: G.W. (6/17/13)
Sample Location: 133 FEDERAL ST. BOSTON, MA
Matrix: Water
Analytical Method: 1,8260C
Analytical Date: 06/18/13 18:02
Analyst: PD

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
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	0.29	1
1,1-Dichloroethane	ND		ug/l	0.75	0.15	1
Chloroform	ND		ug/l	0.75	0.16	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,2-Dichloropropane	ND		ug/l	1.8	0.13	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
Bromodichloromethane	ND		ug/l	0.50	0.19	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
1,1-Dichloropropene	ND		ug/l	2.5	0.17	1
Bromoform	ND		ug/l	2.0	0.25	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14	1
Benzene	ND		ug/l	0.50	0.16	1
Toluene	2.7		ug/l	0.75	0.16	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
Chloromethane	ND		ug/l	2.5	0.18	1
Bromomethane	ND		ug/l	1.0	0.26	1
Vinyl chloride	ND		ug/l	1.0	0.14	1
Chloroethane	ND		ug/l	1.0	0.13	1
1,1-Dichloroethene	ND		ug/l	0.50	0.14	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Trichloroethene	ND		ug/l	0.50	0.17	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311043-01 Date Collected: 06/17/13 13:45

Client ID: G.W. (6/17/13) Date Received: 06/17/13

Sample Location: 133 FEDERAL ST. BOSTON, MA 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	0.16	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.33	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
Dibromomethane	ND		ug/l	5.0	0.36	1
1,4-Dichlorobutane	ND		ug/l	5.0	0.46	1
1,2,3-Trichloropropane	ND		ug/l	5.0	0.18	1
Styrene	ND		ug/l	1.0	0.36	1
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Acetone	ND		ug/l	5.0	1.4	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
2-Butanone	ND		ug/l	5.0	1.9	1
Vinyl acetate	ND		ug/l	5.0	0.31	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
2-Hexanone	ND		ug/l	5.0	0.51	1
Ethyl methacrylate	ND		ug/l	5.0	0.61	1
Acrylonitrile	ND		ug/l	5.0	0.43	1
Bromochloromethane	ND		ug/l	2.5	0.14	1
Tetrahydrofuran	ND		ug/l	5.0	0.83	1
2,2-Dichloropropane	ND		ug/l	2.5	0.20	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
1,3-Dichloropropane	ND		ug/l	2.5	0.21	1
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16	1
Bromobenzene	ND		ug/l	2.5	0.15	1
n-Butylbenzene	ND		ug/l	0.50	0.19	1
sec-Butylbenzene	ND		ug/l	0.50	0.18	1
tert-Butylbenzene	ND		ug/l	2.5	0.18	1
o-Chlorotoluene	ND		ug/l	2.5	0.17	1
p-Chlorotoluene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33	1
Hexachlorobutadiene	ND		ug/l	0.50	0.22	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
p-Isopropyltoluene	ND		ug/l	0.50	0.19	1
Naphthalene	ND		ug/l	2.5	0.22	1
n-Propylbenzene	ND		ug/l	0.50	0.17	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.17	1

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311043-01 Date Collected: 06/17/13 13:45

Client ID: G.W. (6/17/13) Date Received: 06/17/13

Sample Location: 133 FEDERAL ST. BOSTON, MA 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	0.19	1
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17	1
Ethyl ether	ND		ug/l	2.5	0.15	1
Tert-Butyl Alcohol	2.8	J	ug/l	10	0.90	1
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.28	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	121		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	104		70-130
Dibromofluoromethane	100		70-130

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311043-01	Date Collected:	06/17/13 13:45
Client ID:	G.W. (6/17/13)	Date Received:	06/17/13
Sample Location:	133 FEDERAL ST. BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water		
Analytical Method:	14,504.1	Extraction Date:	06/18/13 08:45
Analytical Date:	06/18/13 13:41		
Analyst:	SR		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Microextractables by GC - Westborough Lab						
1,2-Dibromoethane	ND		ug/l	0.010	0.003	1
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	0.004	1

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 14,504.1
Analytical Date: 06/18/13 12:05
Analyst: SR

Extraction Date: 06/18/13 08:45

Parameter	Result	Qualifier	Units	RL	MDL
Microextractables by GC - Westborough Lab for sample(s): 01 Batch: WG615646-1					
1,2-Dibromoethane	ND		ug/l	0.010	0.003
1,2-Dibromo-3-chloropropane	ND		ug/l	0.010	0.004

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 12:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG616039-3					
Methylene chloride	ND		ug/l	3.0	0.29
1,1-Dichloroethane	ND		ug/l	0.75	0.15
Chloroform	ND		ug/l	0.75	0.16
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,2-Dichloropropane	ND		ug/l	1.8	0.13
Dibromochloromethane	ND		ug/l	0.50	0.15
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Tetrachloroethene	ND		ug/l	0.50	0.18
Chlorobenzene	ND		ug/l	0.50	0.18
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
Bromodichloromethane	ND		ug/l	0.50	0.19
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
1,1-Dichloropropene	ND		ug/l	2.5	0.17
Bromoform	ND		ug/l	2.0	0.25
1,1,2,2-Tetrachloroethane	ND		ug/l	0.50	0.14
Benzene	ND		ug/l	0.50	0.16
Toluene	ND		ug/l	0.75	0.16
Ethylbenzene	ND		ug/l	0.50	0.17
Chloromethane	ND		ug/l	2.5	0.18
Bromomethane	ND		ug/l	1.0	0.26
Vinyl chloride	ND		ug/l	1.0	0.14
Chloroethane	ND		ug/l	1.0	0.13
1,1-Dichloroethene	ND		ug/l	0.50	0.14
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Trichloroethene	ND		ug/l	0.50	0.17
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 12:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG616039-3					
Methyl tert butyl ether	ND		ug/l	1.0	0.16
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.33
Xylenes, Total	ND		ug/l	1.0	0.33
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
Dibromomethane	ND		ug/l	5.0	0.36
1,4-Dichlorobutane	ND		ug/l	5.0	0.46
1,2,3-Trichloropropane	ND		ug/l	5.0	0.18
Styrene	ND		ug/l	1.0	0.36
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Acetone	ND		ug/l	5.0	1.4
Carbon disulfide	ND		ug/l	5.0	0.30
2-Butanone	ND		ug/l	5.0	1.9
Vinyl acetate	ND		ug/l	5.0	0.31
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
2-Hexanone	ND		ug/l	5.0	0.51
Ethyl methacrylate	ND		ug/l	5.0	0.61
Acrylonitrile	ND		ug/l	5.0	0.43
Bromochloromethane	ND		ug/l	2.5	0.14
Tetrahydrofuran	ND		ug/l	5.0	0.83
2,2-Dichloropropane	ND		ug/l	2.5	0.20
1,2-Dibromoethane	ND		ug/l	2.0	0.19
1,3-Dichloropropane	ND		ug/l	2.5	0.21
1,1,1,2-Tetrachloroethane	ND		ug/l	0.50	0.16
Bromobenzene	ND		ug/l	2.5	0.15
n-Butylbenzene	ND		ug/l	0.50	0.19
sec-Butylbenzene	ND		ug/l	0.50	0.18
tert-Butylbenzene	ND		ug/l	2.5	0.18
o-Chlorotoluene	ND		ug/l	2.5	0.17
p-Chlorotoluene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.33

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260C
Analytical Date: 06/18/13 12:52
Analyst: PD

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG616039-3					
Hexachlorobutadiene	ND		ug/l	0.50	0.22
Isopropylbenzene	ND		ug/l	0.50	0.19
p-Isopropyltoluene	ND		ug/l	0.50	0.19
Naphthalene	ND		ug/l	2.5	0.22
n-Propylbenzene	ND		ug/l	0.50	0.17
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,3,5-Trimethylbenzene	ND		ug/l	2.5	0.17
1,2,4-Trimethylbenzene	ND		ug/l	2.5	0.19
trans-1,4-Dichloro-2-butene	ND		ug/l	2.5	0.17
Ethyl ether	ND		ug/l	2.5	0.15
Tert-Butyl Alcohol	ND		ug/l	10	0.90
Tertiary-Amyl Methyl Ether	ND		ug/l	2.0	0.28

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	99		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	98		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01 Batch: WG615646-2								
1,2-Dibromoethane	114		-		70-130	-		20
1,2-Dibromo-3-chloropropane	119		-		70-130	-		20
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 01 Batch: WG616039-1 WG616039-2								
Methylene chloride	97		94		70-130	3		20
1,1-Dichloroethane	96		92		70-130	4		20
Chloroform	96		94		70-130	2		20
Carbon tetrachloride	89		88		63-132	1		20
1,2-Dichloropropane	98		96		70-130	2		20
Dibromochloromethane	99		97		63-130	2		20
1,1,2-Trichloroethane	98		97		70-130	1		20
2-Chloroethylvinyl ether	106		102		70-130	4		20
Tetrachloroethene	101		98		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

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: WG616039-1 WG616039-2								
Chlorobenzene	100		98		75-130	2		25
Trichlorofluoromethane	96		93		62-150	3		20
1,2-Dichloroethane	97		94		70-130	3		20
1,1,1-Trichloroethane	100		98		67-130	2		20
Bromodichloromethane	99		96		67-130	3		20
trans-1,3-Dichloropropene	92		90		70-130	2		20
cis-1,3-Dichloropropene	92		90		70-130	2		20
1,1-Dichloropropene	100		94		70-130	6		20
Bromoform	89		88		54-136	1		20
1,1,2,2-Tetrachloroethane	95		94		67-130	1		20
Benzene	97		95		70-130	2		25
Toluene	101		99		70-130	2		25
Ethylbenzene	102		100		70-130	2		20
Chloromethane	111		112		64-130	1		20
Bromomethane	99		100		39-139	1		20
Vinyl chloride	99		94		55-140	5		20
Chloroethane	99		95		55-138	4		20
1,1-Dichloroethene	92		93		61-145	1		25
trans-1,2-Dichloroethene	95		93		70-130	2		20
Trichloroethene	98		95		70-130	3		25
1,2-Dichlorobenzene	100		100		70-130	0		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

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: WG616039-1 WG616039-2								
1,3-Dichlorobenzene	102		101		70-130	1		20
1,4-Dichlorobenzene	100		98		70-130	2		20
Methyl tert butyl ether	98		95		63-130	3		20
p/m-Xylene	103		100		70-130	3		20
o-Xylene	105		102		70-130	3		20
cis-1,2-Dichloroethene	94		91		70-130	3		20
Dibromomethane	98		92		70-130	6		20
1,4-Dichlorobutane	101		101		70-130	0		20
Iodomethane	119		118		70-130	1		20
1,2,3-Trichloropropane	97		94		64-130	3		20
Styrene	103		99		70-130	4		20
Dichlorodifluoromethane	97		92		36-147	5		20
Acetone	92		88		58-148	4		20
Carbon disulfide	92		90		51-130	2		20
2-Butanone	94		87		63-138	8		20
Vinyl acetate	87		84		70-130	4		20
4-Methyl-2-pentanone	95		87		59-130	9		20
2-Hexanone	93		91		57-130	2		20
Ethyl methacrylate	102		100		70-130	2		20
Acrolein	106		100		70-130	6		20
Acrylonitrile	92		87		70-130	6		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

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: WG616039-1 WG616039-2								
Bromochloromethane	93		91		70-130	2		20
Tetrahydrofuran	86		84		58-130	2		20
2,2-Dichloropropane	108		107		63-133	1		20
1,2-Dibromoethane	100		97		70-130	3		20
1,3-Dichloropropane	100		98		70-130	2		20
1,1,1,2-Tetrachloroethane	95		93		64-130	2		20
Bromobenzene	101		100		70-130	1		20
n-Butylbenzene	108		105		53-136	3		20
sec-Butylbenzene	106		105		70-130	1		20
tert-Butylbenzene	106		104		70-130	2		20
o-Chlorotoluene	102		101		70-130	1		20
p-Chlorotoluene	104		102		70-130	2		20
1,2-Dibromo-3-chloropropane	87		85		41-144	2		20
Hexachlorobutadiene	104		104		63-130	0		20
Isopropylbenzene	105		102		70-130	3		20
p-Isopropyltoluene	105		105		70-130	0		20
Naphthalene	91		88		70-130	3		20
n-Propylbenzene	104		103		69-130	1		20
1,2,3-Trichlorobenzene	98		97		70-130	1		20
1,2,4-Trichlorobenzene	101		100		70-130	1		20
1,3,5-Trimethylbenzene	105		104		64-130	1		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

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: WG616039-1 WG616039-2								
1,3,5-Trichlorobenzene	104		102		70-130	2		20
1,2,4-Trimethylbenzene	104		103		70-130	1		20
trans-1,4-Dichloro-2-butene	96		93		70-130	3		20
Halothane	96		94		70-130	2		20
Ethyl ether	92		91		59-134	1		20
Methyl Acetate	88		88		70-130	0		20
Ethyl Acetate	90		88		70-130	2		20
Isopropyl Ether	97		94		70-130	3		20
Cyclohexane	97		93		70-130	4		20
Tert-Butyl Alcohol	98		91		70-130	7		20
Ethyl-Tert-Butyl-Ether	104		102		70-130	2		20
Tertiary-Amyl Methyl Ether	97		96		66-130	1		20
1,4-Dioxane	98		95		56-162	3		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	97		93		70-130	4		20
Methyl cyclohexane	98		96		70-130	2		20
1,4-Diethylbenzene	101		100		70-130	1		20
4-Ethyltoluene	104		103		70-130	1		20
1,2,4,5-Tetramethylbenzene	108		105		70-130	3		20

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

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: WG616039-1 WG616039-2								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	98		96		70-130
Toluene-d8	100		101		70-130
4-Bromofluorobenzene	101		102		70-130
Dibromofluoromethane	97		99		70-130

Matrix Spike Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Microextractables by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615646-3 QC Sample: L1311043-01 Client ID: G.W. (6/17/13)												
1,2-Dibromoethane	ND	0.25	0.272	109		-	-		70-130	-		20
1,2-Dibromo-3-chloropropane	ND	0.25	0.282	113		-	-		70-130	-		20

SEMIVOLATILES

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311043-01	Date Collected:	06/17/13 13:45
Client ID:	G.W. (6/17/13)	Date Received:	06/17/13
Sample Location:	133 FEDERAL ST. BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D	Extraction Date:	06/25/13 00:01
Analytical Date:	06/25/13 14:39		
Analyst:	RC		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Semivolatile Organics by GC/MS - Westborough Lab						
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.4	1
Butyl benzyl phthalate	ND		ug/l	5.0	0.46	1
Di-n-butylphthalate	ND		ug/l	5.0	0.54	1
Di-n-octylphthalate	ND		ug/l	5.0	0.53	1
Diethyl phthalate	ND		ug/l	5.0	0.45	1
Dimethyl phthalate	ND		ug/l	5.0	0.45	1
Pentachlorophenol	ND		ug/l	10	1.2	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	81		23-120
2-Fluorobiphenyl	74		15-120
4-Terphenyl-d14	91		41-149

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311043-01	Date Collected:	06/17/13 13:45
Client ID:	G.W. (6/17/13)	Date Received:	06/17/13
Sample Location:	133 FEDERAL ST. BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	06/17/13 21:03
Analytical Date:	06/18/13 14:33		
Analyst:	HL		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PAHs by GC/MS-SIM - Westborough Lab						
Acenaphthene	ND		ug/l	0.200	0.064	1
Fluoranthene	ND		ug/l	0.200	0.043	1
Naphthalene	ND		ug/l	0.200	0.064	1
Benzo(a)anthracene	ND		ug/l	0.200	0.057	1
Benzo(a)pyrene	ND		ug/l	0.200	0.069	1
Benzo(b)fluoranthene	ND		ug/l	0.200	0.071	1
Benzo(k)fluoranthene	ND		ug/l	0.200	0.068	1
Chrysene	ND		ug/l	0.200	0.049	1
Acenaphthylene	ND		ug/l	0.200	0.050	1
Anthracene	ND		ug/l	0.200	0.063	1
Benzo(ghi)perylene	ND		ug/l	0.200	0.070	1
Fluorene	ND		ug/l	0.200	0.057	1
Phenanthrene	0.077	J	ug/l	0.200	0.064	1
Dibenzo(a,h)anthracene	ND		ug/l	0.200	0.073	1
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.200	0.079	1
Pyrene	ND		ug/l	0.200	0.057	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	57		23-120
2-Fluorobiphenyl	60		15-120
4-Terphenyl-d14	76		41-149

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311043-01	Date Collected:	06/17/13 13:45
Client ID:	G.W. (6/17/13)	Date Received:	06/17/13
Sample Location:	133 FEDERAL ST. BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 3510C
Analytical Method:	1,8270D-SIM	Extraction Date:	06/19/13 16:08
Analytical Date:	06/20/13 15:06		
Analyst:	CM		

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
1,4 Dioxane by 8270D-SIM - Mansfield Lab						
1,4-Dioxane	ND		ng/l	150	75.0	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	36		15-110

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 06/18/13 11:41
Analyst: HL

Extraction Method: EPA 3510C
Extraction Date: 06/17/13 21:03

Parameter	Result	Qualifier	Units	RL	MDL
PAHs by GC/MS-SIM - Westborough Lab for sample(s): 01 Batch: WG615563-1					
Acenaphthene	ND		ug/l	0.200	0.064
Fluoranthene	ND		ug/l	0.200	0.043
Naphthalene	ND		ug/l	0.200	0.064
Benzo(a)anthracene	ND		ug/l	0.200	0.057
Benzo(a)pyrene	ND		ug/l	0.200	0.069
Benzo(b)fluoranthene	ND		ug/l	0.200	0.071
Benzo(k)fluoranthene	ND		ug/l	0.200	0.068
Chrysene	ND		ug/l	0.200	0.049
Acenaphthylene	ND		ug/l	0.200	0.050
Anthracene	ND		ug/l	0.200	0.063
Benzo(ghi)perylene	ND		ug/l	0.200	0.070
Fluorene	ND		ug/l	0.200	0.057
Phenanthrene	ND		ug/l	0.200	0.064
Dibenzo(a,h)anthracene	ND		ug/l	0.200	0.073
Indeno(1,2,3-cd)pyrene	ND		ug/l	0.200	0.079
Pyrene	ND		ug/l	0.200	0.057

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	73		23-120
2-Fluorobiphenyl	78		15-120
4-Terphenyl-d14	77		41-149

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D-SIM
Analytical Date: 06/20/13 12:54
Analyst: CM

Extraction Method: EPA 3510C
Extraction Date: 06/19/13 16:08

Parameter	Result	Qualifier	Units	RL	MDL
1,4 Dioxane by 8270D-SIM - Mansfield Lab for sample(s): 01 Batch: WG616136-1					
1,4-Dioxane	ND		ng/l	150	75.0

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,4-Dioxane-d8	38		15-110

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8270D
Analytical Date: 06/25/13 13:17
Analyst: RC

Extraction Method: EPA 3510C
Extraction Date: 06/25/13 00:01

Parameter	Result	Qualifier	Units	RL	MDL
Semivolatile Organics by GC/MS - Westborough Lab for sample(s): 01 Batch: WG617247-1					
Bis(2-ethylhexyl)phthalate	ND		ug/l	3.0	1.4
Butyl benzyl phthalate	ND		ug/l	5.0	0.46
Di-n-butylphthalate	ND		ug/l	5.0	0.54
Di-n-octylphthalate	ND		ug/l	5.0	0.53
Diethyl phthalate	ND		ug/l	5.0	0.45
Dimethyl phthalate	ND		ug/l	5.0	0.45
Pentachlorophenol	ND		ug/l	10	1.2

Surrogate	%Recovery	Qualifier	Acceptance Criteria
Nitrobenzene-d5	60		23-120
2-Fluorobiphenyl	49		15-120
4-Terphenyl-d14	75		41-149

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG615563-2 WG615563-3								
Acenaphthene	68		69		37-111	1		40
2-Chloronaphthalene	68		69		40-140	1		40
Fluoranthene	83		87		40-140	5		40
Naphthalene	63		65		40-140	3		40
Benzo(a)anthracene	81		85		40-140	5		40
Benzo(a)pyrene	76		78		40-140	3		40
Benzo(b)fluoranthene	92		79		40-140	15		40
Benzo(k)fluoranthene	77		91		40-140	17		40
Chrysene	74		78		40-140	5		40
Acenaphthylene	71		73		40-140	3		40
Anthracene	77		80		40-140	4		40
Benzo(ghi)perylene	76		73		40-140	4		40
Fluorene	70		74		40-140	6		40
Phenanthrene	76		80		40-140	5		40
Dibenzo(a,h)anthracene	78		78		40-140	0		40
Indeno(1,2,3-cd)pyrene	80		78		40-140	3		40
Pyrene	78		81		40-140	4		40
1-Methylnaphthalene	66		69		40-140	4		40
2-Methylnaphthalene	65		66		40-140	2		40

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PAHs by GC/MS-SIM - Westborough Lab Associated sample(s): 01 Batch: WG615563-2 WG615563-3								

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	62		65		23-120
2-Fluorobiphenyl	63		64		15-120
4-Terphenyl-d14	75		79		41-149

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
1,4 Dioxane by 8270D-SIM - Mansfield Lab Associated sample(s): 01 Batch: WG616136-2 WG616136-3								
1,4-Dioxane	109		110		40-140	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,4-Dioxane-d8	36		39		15-110

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

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: WG617247-2 WG617247-3								
Bis(2-ethylhexyl)phthalate	93		93		40-140	0		30
Butyl benzyl phthalate	88		92		40-140	4		30
Di-n-butylphthalate	86		89		40-140	3		30
Di-n-octylphthalate	87		90		40-140	3		30
Diethyl phthalate	86		86		40-140	0		30
Dimethyl phthalate	81		83		40-140	2		30
Pentachlorophenol	71		72		9-103	1		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
Nitrobenzene-d5	70		74		23-120
2-Fluorobiphenyl	66		66		15-120
4-Terphenyl-d14	83		87		41-149

PCBS

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID:	L1311043-01	Date Collected:	06/17/13 13:45
Client ID:	G.W. (6/17/13)	Date Received:	06/17/13
Sample Location:	133 FEDERAL ST. BOSTON, MA	Field Prep:	Not Specified
Matrix:	Water	Extraction Method:	EPA 608
Analytical Method:	5,608	Extraction Date:	06/17/13 20:59
Analytical Date:	06/18/13 15:57	Cleanup Method1:	EPA 3665A
Analyst:	KB	Cleanup Date1:	06/18/13
		Cleanup Method2:	EPA 3660B
		Cleanup Date2:	06/18/13

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Polychlorinated Biphenyls by GC - Westborough Lab						
Aroclor 1016	ND		ug/l	0.250	0.066	1
Aroclor 1221	ND		ug/l	0.250	0.064	1
Aroclor 1232	ND		ug/l	0.250	0.037	1
Aroclor 1242	ND		ug/l	0.250	0.072	1
Aroclor 1248	ND		ug/l	0.250	0.061	1
Aroclor 1254	ND		ug/l	0.250	0.041	1
Aroclor 1260	ND		ug/l	0.250	0.038	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65		30-150
Decachlorobiphenyl	48		30-150

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

Method Blank Analysis
Batch Quality Control

Analytical Method: 5,608
Analytical Date: 06/18/13 16:50
Analyst: KB

Extraction Method: EPA 608
Extraction Date: 06/17/13 20:59
Cleanup Method1: EPA 3665A
Cleanup Date1: 06/18/13
Cleanup Method2: EPA 3660B
Cleanup Date2: 06/18/13

Parameter	Result	Qualifier	Units	RL	MDL
Polychlorinated Biphenyls by GC - Westborough Lab for sample(s): 01 Batch: WG615561-1					
Aroclor 1016	ND		ug/l	0.250	0.066
Aroclor 1221	ND		ug/l	0.250	0.064
Aroclor 1232	ND		ug/l	0.250	0.037
Aroclor 1242	ND		ug/l	0.250	0.072
Aroclor 1248	ND		ug/l	0.250	0.061
Aroclor 1254	ND		ug/l	0.250	0.041
Aroclor 1260	ND		ug/l	0.250	0.038

Surrogate	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	61		30-150
Decachlorobiphenyl	78		30-150

Matrix Spike Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 (6/17/13)	QC Batch ID: WG615561-3		QC Sample: L1311043-01			Client ID: G.W.						
Aroclor 1016	ND	2	1.58	79		-	-		40-140	-		50
Aroclor 1260	ND	2	1.27	64		-	-		40-140	-		50

Surrogate	MS % Recovery	MS Qualifier	MSD % Recovery	MSD Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	71				30-150
Decachlorobiphenyl	42				30-150

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 Batch: WG615561-2								
Aroclor 1016	69		-		40-140	-		50
Aroclor 1260	58		-		40-140	-		50

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	64				30-150
Decachlorobiphenyl	82				30-150

Lab Duplicate Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Polychlorinated Biphenyls by GC - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615561-4 QC Sample: L1311043-01 Client ID: G.W. (6/17/13)						
Aroclor 1016	ND	ND	ug/l	NC		50
Aroclor 1221	ND	ND	ug/l	NC		50
Aroclor 1232	ND	ND	ug/l	NC		50
Aroclor 1242	ND	ND	ug/l	NC		50
Aroclor 1248	ND	ND	ug/l	NC		50
Aroclor 1254	ND	ND	ug/l	NC		50
Aroclor 1260	ND	ND	ug/l	NC		50

Surrogate	%Recovery	Qualifier	%Recovery	Qualifier	Acceptance Criteria
2,4,5,6-Tetrachloro-m-xylene	65		69		30-150
Decachlorobiphenyl	48		52		30-150

METALS

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

SAMPLE RESULTS

Lab ID: L1311043-01 Date Collected: 06/17/13 13:45

Client ID: G.W. (6/17/13) Date Received: 06/17/13

Sample Location: 133 FEDERAL ST. BOSTON, MA Field Prep: Not Specified

Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Westborough Lab											
Antimony, Total	0.00035	J	mg/l	0.00050	0.00010	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Arsenic, Total	0.00045	J	mg/l	0.00050	0.00010	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Chromium, Total	0.00106		mg/l	0.00100	0.00020	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Copper, Total	0.00019	J	mg/l	0.00100	0.00010	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Iron, Total	13		mg/l	0.05	0.02	1	06/18/13 11:48	06/20/13 06:54	EPA 3005A	19,200.7	TT
Lead, Total	0.00020	J	mg/l	0.00050	0.00020	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Mercury, Total	ND		mg/l	0.0002	0.0001	1	06/18/13 15:55	06/19/13 16:19	EPA 245.1	3,245.1	JH
Nickel, Total	0.00030	J	mg/l	0.00050	0.00010	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Selenium, Total	ND		mg/l	0.00500	0.00030	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Silver, Total	ND		mg/l	0.00040	0.00010	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK
Zinc, Total	0.00574	J	mg/l	0.01000	0.00120	1	06/18/13 11:48	06/19/13 15:00	EPA 3005A	1,6020A	AK

Project Name: INK BLOCK
Project Number: 17359.75
Lab Number: L1311043
Report Date: 06/26/13

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: WG615661-1										
Antimony, Total	0.00024	J	mg/l	0.00050	0.00010	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Arsenic, Total	ND		mg/l	0.00050	0.00010	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Cadmium, Total	ND		mg/l	0.00020	0.00005	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Chromium, Total	ND		mg/l	0.00100	0.00020	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Copper, Total	ND		mg/l	0.00100	0.00010	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Lead, Total	ND		mg/l	0.00050	0.00020	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Nickel, Total	ND		mg/l	0.00050	0.00010	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Selenium, Total	ND		mg/l	0.00500	0.00030	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Silver, Total	ND		mg/l	0.00040	0.00010	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK
Zinc, Total	ND		mg/l	0.01000	0.00120	1	06/18/13 11:48	06/19/13 09:46	1,6020A	AK

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: WG615662-1										
Iron, Total	ND		mg/l	0.05	0.02	1	06/18/13 11:48	06/19/13 18:05	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: WG615701-1										
Mercury, Total	ND		mg/l	0.0002	0.0001	1	06/18/13 15:55	06/19/13 13:17	3,245.1	JH

Prep Information

Digestion Method: EPA 245.1

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK

Project Number: 17359.75

Lab Number: L1311043

Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG615661-2								
Antimony, Total	87		-		80-120	-		
Arsenic, Total	101		-		80-120	-		
Cadmium, Total	110		-		80-120	-		
Chromium, Total	97		-		80-120	-		
Copper, Total	106		-		80-120	-		
Lead, Total	102		-		80-120	-		
Nickel, Total	101		-		80-120	-		
Selenium, Total	110		-		80-120	-		
Silver, Total	102		-		80-120	-		
Zinc, Total	114		-		80-120	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG615662-2								
Iron, Total	100		-		85-115	-		
Total Metals - Westborough Lab Associated sample(s): 01 Batch: WG615701-2								
Mercury, Total	89		-		85-115	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

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: WG615661-4 QC Sample: L1311009-02 Client ID: MS Sample												
Antimony, Total	0.0006	0.5	0.4816	96		-	-		80-120	-		20
Arsenic, Total	0.00899	0.12	0.1331	103		-	-		80-120	-		20
Cadmium, Total	0.00009J	0.051	0.05753	113		-	-		80-120	-		20
Chromium, Total	0.00078J	0.2	0.1910	96		-	-		80-120	-		20
Copper, Total	0.00403	0.25	0.2556	101		-	-		80-120	-		20
Lead, Total	0.02442	0.51	0.5466	102		-	-		80-120	-		20
Nickel, Total	0.00288	0.5	0.4841	96		-	-		80-120	-		20
Selenium, Total	0.001J	0.12	0.139	116		-	-		80-120	-		20
Silver, Total	ND	0.05	0.05023	100		-	-		80-120	-		20
Zinc, Total	0.02464	0.5	0.5831	112		-	-		80-120	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615662-4 QC Sample: L1311009-02 Client ID: MS Sample												
Iron, Total	1.8	1	2.8	100		-	-		75-125	-		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615701-4 QC Sample: L1310834-01 Client ID: MS Sample												
Mercury, Total	ND	0.005	0.0056	111		-	-		70-130	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615661-3 QC Sample: L1311009-02 Client ID: DUP Sample						
Arsenic, Total	0.00899	0.00871	mg/l	3		20
Cadmium, Total	0.00009J	0.00010J	mg/l	NC		20
Chromium, Total	0.00078J	0.00080J	mg/l	NC		20
Copper, Total	0.00403	0.00389	mg/l	3		20
Lead, Total	0.02442	0.02297	mg/l	6		20
Nickel, Total	0.00288	0.00277	mg/l	4		20
Zinc, Total	0.02464	0.02418	mg/l	2		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615662-3 QC Sample: L1311009-02 Client ID: DUP Sample						
Iron, Total	1.8	1.7	mg/l	6		20
Total Metals - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615701-3 QC Sample: L1310834-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/l	NC		20

INORGANICS
&
MISCELLANEOUS

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

SAMPLE RESULTS

Lab ID: L1311043-01
Client ID: G.W. (6/17/13)
Sample Location: 133 FEDERAL ST. BOSTON, MA
Matrix: Water

Date Collected: 06/17/13 13:45
Date Received: 06/17/13
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Trivalent	ND		mg/l	0.010	0.010	1	-	06/20/13 10:30	107,-	JO
Solids, Total Suspended	42.		mg/l	5.0	NA	1	-	06/18/13 13:00	30,2540D	ST
Cyanide, Total	0.003	J	mg/l	0.005	0.001	1	06/18/13 13:00	06/19/13 12:21	30,4500CN-CE	JO
Chlorine, Total Residual	ND		mg/l	0.02	0.01	1	-	06/17/13 21:30	30,4500CL-D	DE
TPH	ND		mg/l	4.00	0.860	1	06/19/13 09:00	06/19/13 12:15	74,1664A	ML
Phenolics, Total	ND		mg/l	0.03	0.01	1	06/18/13 11:30	06/18/13 17:27	4,420.1	TE
Chromium, Hexavalent	0.002	J	mg/l	0.010	0.001	1	06/18/13 02:00	06/18/13 02:26	30,3500CR-D	JT
Anions by Ion Chromatography - Westborough Lab										
Chloride	2980		mg/l	125	42.0	250	-	06/18/13 01:06	44,300.0	AU

Project Name: INK BLOCK **Lab Number:** L1311043

Project Number: 17359.75 **Report Date:** 06/26/13

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: WG615565-1										
Chlorine, Total Residual	ND		mg/l	0.02	0.01	1	-	06/17/13 21:30	30,4500CL-D	DE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG615607-1										
Chromium, Hexavalent	ND		mg/l	0.010	0.001	1	06/18/13 02:00	06/18/13 02:23	30,3500CR-D	JT
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG615685-1										
Solids, Total Suspended	ND		mg/l	5.0	NA	1	-	06/18/13 13:00	30,2540D	ST
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG615724-1										
Cyanide, Total	0.001	J	mg/l	0.005	0.001	1	06/18/13 13:00	06/19/13 12:14	30,4500CN-CE	JO
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG615750-1										
Phenolics, Total	ND		mg/l	0.03	0.01	1	06/18/13 11:30	06/18/13 17:13	4,420.1	TE
General Chemistry - Westborough Lab for sample(s): 01 Batch: WG616031-1										
TPH	ND		mg/l	4.00	0.860	1	06/19/13 09:00	06/19/13 12:15	74,1664A	ML
Anions by Ion Chromatography - Westborough Lab for sample(s): 01 Batch: WG616219-1										
Chloride	ND		mg/l	0.500	0.168	1	-	06/17/13 19:42	44,300.0	AU

Lab Control Sample Analysis

Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG615565-2								
Chlorine, Total Residual	99		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG615607-2								
Chromium, Hexavalent	101		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG615724-2								
Cyanide, Total	96		-		90-110	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG615750-2								
Phenolics, Total	104		-		70-130	-		
General Chemistry - Westborough Lab Associated sample(s): 01 Batch: WG616031-2								
TPH	80		-		64-132	-		34
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 Batch: WG616219-2								
Chloride	96		-		90-110	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

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: WG615607-4 QC Sample: L1311043-01 Client ID: G.W. (6/17/13)												
Chromium, Hexavalent	0.002J	0.1	0.098	98		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615724-3 QC Sample: L1311017-01 Client ID: MS Sample												
Cyanide, Total	0.029	0.2	0.209	90		-	-		90-110	-		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615750-4 QC Sample: L1310897-04 Client ID: MS Sample												
Phenolics, Total	ND	0.4	0.40	101		-	-		70-130	-		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG616219-3 QC Sample: L1311009-01 Client ID: MS Sample												
Chloride	247.	100	349	102		-	-		40-151	-		18

Lab Duplicate Analysis
Batch Quality Control

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615565-3 QC Sample: L1311043-01 Client ID: G.W. (6/17/13)						
Chlorine, Total Residual	ND	ND	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615607-3 QC Sample: L1311043-01 Client ID: G.W. (6/17/13)						
Chromium, Hexavalent	0.002J	0.001J	mg/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615724-4 QC Sample: L1311043-01 Client ID: G.W. (6/17/13)						
Cyanide, Total	0.003J	0.003J	mg/l	NC		30
General Chemistry - Westborough Lab Associated sample(s): 01 QC Batch ID: WG615750-3 QC Sample: L1310897-04 Client ID: DUP Sample						
Phenolics, Total	ND	ND	mg/l	NC		20
Anions by Ion Chromatography - Westborough Lab Associated sample(s): 01 QC Batch ID: WG616219-4 QC Sample: L1311009-01 Client ID: DUP Sample						
Chloride	247.	248.	mg/l	0		18

Project Name: INK BLOCK
Project Number: 17359.75

Lab Number: L1311043
Report Date: 06/26/13

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	Present/Intact

Container Information

Container ID	Container Type	Cooler	pH	Temp deg C	Pres	Seal	Analysis(*)
L1311043-01A	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	8260(14)
L1311043-01B	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	8260(14)
L1311043-01C	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	8260(14)
L1311043-01D	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	504(14)
L1311043-01E	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	504(14)
L1311043-01F	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	504(14)
L1311043-01G	Amber 1000ml unpreserved	A	7	2.6	Y	Present/Intact	PAHTCL-SIM(7),8270TCL(7)
L1311043-01I	Amber 1000ml unpreserved	A	7	2.6	Y	Present/Intact	A2-1,4-DIOXANE-SIM(7)
L1311043-01J	Amber 1000ml unpreserved	A	7	2.6	Y	Present/Intact	A2-1,4-DIOXANE-SIM(7)
L1311043-01K	Amber 1000ml Na2S2O3	A	7	2.6	Y	Present/Intact	PCB-608(7)
L1311043-01L	Amber 1000ml Na2S2O3	A	7	2.6	Y	Present/Intact	PCB-608(7)
L1311043-01M	Amber 1000ml HCl preserved	A	<2	2.6	Y	Present/Intact	TPH-1664(28)
L1311043-01O	Amber 1000ml H2SO4 preserved	A	<2	2.6	Y	Present/Intact	TPHENOL-420(28)
L1311043-01P	Plastic 1000ml unpreserved	A	7	2.6	Y	Present/Intact	TSS-2540(7)
L1311043-01Q	Plastic 500ml unpreserved	A	7	2.6	Y	Present/Intact	CL-300(28),HEXCR-3500(1),TRC-4500(1)
L1311043-01R	Plastic 250ml NaOH preserved	A	>12	2.6	Y	Present/Intact	TCN-4500(14)
L1311043-01S	Plastic 250ml HNO3 preserved	A	<2	2.6	Y	Present/Intact	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)
L1311043-01T	Amber 1000ml H2SO4 preserved	A	<2	2.6	Y	Present/Intact	TPHENOL-420(28)
L1311043-02A	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	HOLD-8260(14)
L1311043-02B	Vial HCl preserved	A	N/A	2.6	Y	Present/Intact	HOLD-8260(14)

*Values in parentheses indicate holding time in days

Project Name:	INK BLOCK	**Lab Number:**	L1311043
Project Number:	17359.75	**Report Date:**	06/26/13

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 five times (5x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. 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 RPD between the results for the two columns exceeds the method-specified criteria; however, the lower value has been reported

Report Format: DU Report with "J" Qualifiers

Project Name:	INK BLOCK	**Lab Number:**	L1311043
Project Number:	17359.75	**Report Date:**	06/26/13

Data Qualifiers

due to obvious interference.

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.

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

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

Report Format: DU Report with "J" Qualifiers

Project Name:	INK BLOCK	**Lab Number:**	L1311043
Project Number:	17359.75	**Report Date:**	06/26/13

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.

107 Alpha Analytical - In-house calculation method.

LIMITATION OF LIABILITIES

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

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

Certificate/Approval Program Summary

Last revised June 17, 2013 - Westboro Facility

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

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

Drinking Water (Inorganic Parameters: Color, pH, Turbidity, Conductivity, Alkalinity, Chloride, Free Residual Chlorine, Fluoride, Calcium Hardness, Sulfate, Nitrate, Nitrite, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Nickel, Selenium, Silver, Sodium, Thallium, Zinc, Total Dissolved Solids, Total Organic Carbon, Total Cyanide, Perchlorate. Organic Parameters: Volatile Organics 524.2, Total Trihalomethanes 524.2, 1,2-Dibromo-3-chloropropane (DBCP) 504.1, Ethylene Dibromide (EDB) 504.1, 1,4-Dioxane (Mod 8270). Microbiology Parameters: Total Coliform-MF mEndo (SM9222B), Total Coliform – Colilert (SM9223, Enumeration and P/A), E. Coli. – Colilert (SM9223, Enumeration and P/A), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform-EC Medium (SM 9221E).

Wastewater/Non-Potable Water (Inorganic Parameters: Color, pH, Conductivity, Acidity, Alkalinity, Chloride, Total Residual Chlorine, Fluoride, Total Hardness, Silica, Sulfate, Sulfide, Ammonia, Kjeldahl Nitrogen, Nitrate, Nitrite, O-Phosphate, Total Phosphorus, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Dissolved Solids, Total Suspended Solids (non-filterable), BOD, CBOD, COD, TOC, Total Cyanide, Phenolics, Foaming Agents (MBAS), Bromide, Oil and Grease. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables (Phenols), Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, Polynuclear Aromatic Hydrocarbons, Haloethers, Chlorinated Hydrocarbons, Volatile Organics, TPH (HEM/SGT), CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH. Microbiology Parameters: Total Coliform – MF mEndo (SM9222B), Total Coliform – MTF (SM9221B), E. Coli – Colilert (SM9223 Enumeration), HPC – Pour Plate (SM9215B), Fecal Coliform – MF m-FC (SM9222D), Fecal Coliform – A-1 Broth (SM9221E), Enterococcus - Enterolert.

Solid Waste/Soil (Inorganic Parameters: pH, Sulfide, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Tin, Vanadium, Zinc, Total Cyanide, Ignitability, Phenolics, Corrosivity, TCLP Leach (1311), SPLP Leach (1312 metals only), Reactivity. Organic Parameters: PCBs, PCBs in Oil, Organochlorine Pesticides, Technical Chlordane, Toxaphene, CT-Extractable Petroleum Hydrocarbons (ETPH), MA-EPH, MA-VPH, Dicamba, 2,4-D, 2,4,5-T, 2,4,5-TP(Silvex), Dalapon, Volatile Organics (SW 8260), Acid Extractables (Phenols) (SW 8270), Benzidines (SW 8270), Phthalates (SW 8270), Nitrosamines (SW 8270), Nitroaromatics & Cyclic Ketones (SW 8270), PAHs (SW 8270), Haloethers (SW 8270), Chlorinated Hydrocarbons (SW 8270).)

State of Illinois Certificate/Lab ID: 003155. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM2120B, 2320B, 2510B, 2540C, SM4500CN-CE, 4500F-C, 4500H-B, 4500NO3-F, 5310C, EPA 200.7, 200.8, 245.1, 300.0. Organic Parameters: EPA 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: SM2120B, 2310B, 2320B, 2340B, 2510B, 2540B, 2540C, 2540D, SM4500CL-E, 4500CN-E, 4500F-C, 4500H-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-E, 4500S-D, 4500SO3-B, 5210B, 5220D, 5310C, 5540C, EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1. Organic Parameters: EPA 608, 624, 625.)

Hazardous and Solid Waste (Inorganic Parameters: EPA 1010A, 1030, 1311, 1312, 6010C, 6020A, 7196A, 7470A, 7471B, 9012B, 9014, 9038, 9040C, 9045D, 9050A, 9065, 9251. Organic Parameters: 8011 (NPW only), 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8315A, 8330.)

Maine Department of Human Services Certificate/Lab ID: 2009024.
Drinking Water (Inorganic Parameters: SM9215B, 9222D, 9223B, EPA 180.1, 353.2, SM2120B, 2130B, 2320B, 2510C, 2540C, 4500Cl-D, 4500CN-C, 4500CN-E, 4500F-C, 4500H+B, 4500NO3-F, 5310C, EPA 200.7, EPA 200.8, 245.1, EPA 300.0. Organic Parameters: 504.1, 524.2.)

Wastewater/Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 8315A, 9010C, SM2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500Cl-E, 4500CN-C, 4500CN-E, 4500F-B, 4500F-C, 4500H+B, 4500Norg-C, 4500NH3-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500P-B, 4500P-E, 4500S2-D, 4500SO3-B, 5540C, 5210B, 5220D, 5310C, 9010B, 9030B, 9040C, 7470A, 7196A, 2340B, EPA 200.7, 6010C, 200.8, 6020A, 245.1, 1311, 1312, 3005A, Enterolert, 9223B, 9222D. Organic Parameters: 608, 624, 625, 8011, 8081B, 8082A, 8330, 8151A, 8260C, 8270D, 3510C, 3630C, 5030B, ME-DRO, ME-GRO, MA-EPH, MA-VPH.)

Solid Waste/Soil (Inorganic Parameters: 9010B, 9012A, 9014, 9040B, 9045C, 6010C, 6020A, 7471B, 7196A, 9050A, 1010, 1030, 9065, 1311, 1312, 3005A, 3050B, 9038, 9251. Organic Parameters: ME-DRO, ME-GRO, MA-EPH, MA-VPH, 8260C, 8270D, 8330, 8151A, 8081B, 8082A, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035.)

Massachusetts Department of Environmental Protection Certificate/Lab ID: M-MA086.
*Drinking Water (*Inorganic Parameters: (EPA 200.8 for: Sb,As,Ba,Be,Cd,Cr,Cu,Pb,Ni,Se,Tl) (EPA 200.7 for: Ba,Be,Ca,Cd,Cr,Cu,Na,Ni) 245.1, (300.0 for: Nitrate-N, Fluoride, Sulfate); (EPA 353.2 for: Nitrate-N, Nitrite-N); (SM4500NO3-F for: Nitrate-N and Nitrite-N); 4500F-C, 4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, 2320B, SM2540C, SM4500H-B. Organic Parameters: (EPA 524.2 for: Trihalomethanes, Volatile Organics); (504.1 for: 1,2-Dibromoethane, 1,2-Dibromo-3-Chloropropane), EPA 332. Microbiology Parameters: SM9215B; ENZ. SUB. SM9223; ColilertQT SM9223B; MF-SM9222D.)

*Non-Potable Water (*Inorganic Parameters:, (EPA 200.8 for: Al,Sb,As,Be,Cd,Cr,Cu,Pb,Mn,Ni,Se,Ag,Tl,Zn); (EPA 200.7 for: Al,Sb,As,Be,Cd,Ca,Cr,Co,Cu,Fe,Pb,Mg,Mn,Mo,Ni,K,Se,Ag,Na,Sr,Ti,Tl,V,Zn); 245.1, SM4500H,B, EPA 120.1, SM2510B, 2540C, 2340B, 2320B, 4500CL-E, 4500F-BC, 426C, SM4500NH3-BH, (EPA 350.1 for: Ammonia-N), LACHAT 10-107-06-1-B for Ammonia-N, SM4500NO3-F, 353.2 for Nitrate-N, SM4500NH3-BC-NES, EPA 351.1, SM4500P-E, 4500P-B,E, 5220D, EPA 410.4, SM 5210B, 5310C, 4500CL-D, EPA 1664, SM14 510AC, EPA 420.1, SM4500-CN-CE, SM2540D.
Organic Parameters: (EPA 624 for Volatile Halocarbons, Volatile Aromatics),(608 for: Chlordane, 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-Water), (EPA 625 for SVOC Acid Extractables and SVOC Base/Neutral Extractables), 600/4-81-045-PCB-Oil. Microbiology Parameters: (ColilertQT SM9223B; Enterolert-QT: SM9222D-MF.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 200307. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM 9222B, 9223B, 9215B, EPA 200.7, 200.8, 300.0, SM4500CN-E, 4500H+B, 4500NO3-F, 2320B, 2510B, 2540C, 4500F-C, 5310C, 2120B, EPA 332.0. Organic Parameters: 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM9222D, 9221B, 9222B, 9221E-EC, EPA 3005A, 200.7, 200.8, 245.1, SW-846 6010C, 6020A, 7196A, 7470A, SM3500-CR-D, EPA 120.1, 300.0, 350.1, 350.2, 351.1, 353.2, 410.4, 420.1, 426C, 1664A, SW-846 9010B, 9010C, 9030, 9040B, 9040C, SM2120B, 2310B, 2320B, 2340B, 2540B, 2540D, 4500H+B, 4500CL-E, 4500CN-E, 4500NH3-H, 4500NO3-F, 4500NO2-B, 4500P-E, 4500-S2-D, 4500SO3-B, 5210B, 5220D, 2510B, 2540C, 4500F-C, 5310C, 5540C, LACHAT 10-204-00-1-A, LACHAT 10-107-06-2-D, 3060A. Organic Parameters: SW-846 3510C, 3630C, 5030B, 8260C, 8270D, 8330, EPA 624, 625, 608, SW-846 8082A, 8081B, 8015C, 8151A, 8330, 8270D-SIM.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 6010C, 6020A, 7196A, 7471B, 1010, 1010A, 1030, 9010C, 9012B, 9014, 9030B, 9040C, 9045C, 9045D, 9050, 9065, 9251, 1311, 1312, 3005A, 3050B, 3060A. Organic Parameters: SW-846 3540C, 3546, 3050B, 3580A, 3620D, 3630C, 5030B, 5035, 8260C, 8270D, 8270D-SIM, 8330, 8151A, 8015B, 8015C, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA935. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9222B, 9221E, 9223B, 9215B, 4500CN-CE, 4500NO3-F, 4500F-C, EPA 300.0, 200.7, 200.8, 245.1, 2540C, SM2120B, 2320B, 2510B, 5310C, SM4500H-B. Organic Parameters: EPA 332, 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: SM5210B, EPA 410.4, SM5220D, 4500Cl-E, EPA 300.0, SM2120B, 2340B, SM4500F-BC, EPA 200.7, 200.8, 351.1, LACHAT 10-107-06-2-D, EPA 353.2, SM4500NO3-F, 4500NO2-B, EPA 1664A, SM5310B, C or D, 4500-PE, EPA 420.1, SM510ABC, SM4500P-B5+E, 2540B, 2540C, 2540D, EPA 120.1, SM2510B, SM15 426C, 9222D, 9221B, 9221C, 9221E, 9222B, 9215B, 2310B, 2320B, 4500NH3-H, 4500-S D, EPA 350.1, 350.2, SW-846 1312, 7470A, 5540C, SM4500H-B, 4500SO3-B, SM3500Cr-D, 4500CN-CE, EPA 245.1, SW-846 9040B, 9040C, 3005A, 3015, EPA 6010B, 6010C, 6020, 6020A, 7196A, 3060A, SW-846 9010C, 9030B. Organic Parameters: SW-846 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3510C, EPA 608, 624, 625, SW-846 3630C, 5030B, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 1,4-Dioxane by NJ Modified 8270, 8015B, NJ EPH.)

Solid & Chemical Materials (Inorganic Parameters: SW-846, 6010B, 6010C, 6020, 6020A, 7196A, 3060A, 9030B, 1010, 1010A, 1030, 1311, 1312, 3005A, 3050B, 7471A, 7471B, 9010C, 9012B, 9014, 9038, 9040B, 9040C, 9045C, 9045D, 9050A, 9065, 9251. Organic Parameters: SW-846 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8330, 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 3540C, 3546, 3580A, 3620C, 3630C, 5030B, 5035L, 5035H, NJ EPH.)

New York Department of Health Certificate/Lab ID: 11148. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: SM9223B, 9222B, 9215B, EPA 200.8, 200.7, 245.1, SM5310C, EPA 332.0, SM2320B, EPA 300.0, SM2120B, 4500CN-E, 4500F-C, 4500NO3-F, 2540C, SM 2510B. Organic Parameters: EPA 524.2, 504.1.)

Non-Potable Water (Inorganic Parameters: SM9221E, 9222D, 9221B, 9222B, 9215B, 5210B, 5310C, EPA 410.4, SM5220D, 2310B, 2320B, EPA 200.7, 300.0, SM4500CL-E, 4500F-C, SM15 426C, EPA 350.1, SM4500NH3-BH, EPA 351.1, LACHAT 10-107-06-2, EPA 353.2, SM4500-NO3-F, 4500-NO2-B, 4500P-E, 2340B, 2540C, 2540B, 2540D, EPA 200.8, EPA 6010C, 6020A, EPA 7196A, SM3500Cr-D, EPA 245.1, 7470A, SM2120B, 4500CN-CE, EPA 1664A, EPA 420.1, SM14 510C, EPA 120.1, SM2510B, SM4500S-D, SM5540C, EPA 8315A, 3005A, 3015, 9010C, 9030B. Organic Parameters: EPA 624, 8260C, 8270D, 8270D-SIM, 625, 608, 8081B, 8151A, 8330, 8082A, EPA 3510C, 5030B, 8015C, 8011.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, EPA 6010C, 6020A, 7196A, 7471B, 8315A, 9012B, 9014, 9065, 9050A, 9038, 9251, EPA 1311, 1312, 3005A, 3050B, 9010C, 9030B, 9040C, 9045D. Organic Parameters: EPA 8260C, 8270D, 8270D-SIM, 8015C, 8081B, 8151A, 8330, 8082A, 3540C, 3546, 3580A, 5035A-H, 5035A-L.)

North Carolina Department of the Environment and Natural Resources Certificate/Lab ID : 666. (Inorganic Parameters: SM2310B, 2320B, 4500Cl-E, 4500Cn-E, 9012B, 9014, Lachat 10-204-00-1-X, 1010A, 1030, 4500NO3-F, 353.2, 4500P-E, 4500SO4-E, 300.0, 4500S-D, 5310B, 5310C, 6010C, 6020A, 200.7, 200.8, 3500Cr-B, 7196A, 245.1, 7470A, 7471B, 1311,1312. Organic Parameters: 608, 8081B, 8082A, 624, 8260B, 625, 8270D, 8151A, 8015C, 504.1, MA-EPH, MA-VPH.)

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

Pennsylvania Department of Environmental Protection Certificate/Lab ID : 68-03671. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: 200.7, 200.8, 300.0, 332.0, 2120B, 2320B, 2510B, 2540C, 4500-CN-CE, 4500F-C, 4500H+-B, 4500NO3-F, 5310C. Organic Parameters: EPA 524.2, 504.1)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1312, 3005A,3015, 3060A, 200.7, 200.8, 410.4, 1664A, SM2540D, 5210B, 5220D, 4500-P,BE, 245.1, 300.0, 350.1, 350.2, 351.1, 353.2, 420.1, 6010C, 6020A, 7196A, 7470A, 9030B, 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 3500Cr-D, 426C, 4500CN-CE, 4500Cl-E, 4500F-B, 4500F-C, 4500H+-B, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500S-D, 4500SO3-B, 5310BCD, 5540C, 9010C, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 625, 624, 608, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, 8015C, NJ-EPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 350.1, 1010, 1030, 1311, 1312, 3005A, 3050B, 3060A, 6010C, 6020A, 7196A, 7471B, 9010C, 9012B, 9014, 9040B, 9045D, 9050A, 9065, SM 4500NH3-BH, 9030B, 9038, 9251. Organic Parameters: 3540C, 3546, 3580A, 3620C, 3630C, 5035, 8015C, 8081B, 8082A, 8151A, 8260C, 8270D, 8270D-SIM, 8330, NJ-EPH.)

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

Texas Commisson on Environmental Quality Certificate/Lab ID: T104704476. ***NELAP Accredited.***
Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664, 200.7, 200.8, 245.1, 245.2, 300.0, 350.1, 351.1, 353.2, 410.4, 420.1, 6010, 6020, 7196, 7470, 9040, SM 2120B, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 426C, 4500CL-E, 4500CN-E, 4500F-C, 4500H+B, 4500NH3-H, 4500NO2B, 4500P-E, 4500 $S2^{-}$D, 510C, 5210B, 5220D, 5310C, 5540C. Organic Parameters: EPA 608, 624, 625, 8081, 8082, 8151, 8260, 8270, 8330.)

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

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID: 460195. ***NELAP Accredited.***
Drinking Water (Inorganic Parameters: EPA 200.7, 200.8, 300.0, 2510B, 2120B, 2540C, 4500CN-CE, 245.1, 2320B, 4500F-C, 4500NO3-F, 4500H+B, 5310C. Organic Parameters: EPA 504.1, 524.2.)

Non-Potable Water (Inorganic Parameters: EPA 120.1, 1664A, 200.7, 200.8, 245.1, 300.0, 350.1, 351.1, 351.2, 3005A, 3015, 1312, 6010B, 6010C, 3060A, 353.2, 420.1, 2340B, 6020, 6020A, SM4500S-D, SM4500-CN-CE, Lachat 10-204-00-1-X, 7196A, 7470A, 2310B, 2320B, 2510B, 2540B, 2540C, 2540D, 3500Cr-D, 426C, 4500Cl-E, 4500F-B, 4500F-C, 4500NH3-H, 4500NO2-B, 4500NO3-F, 4500 SO3-B, 4500H-B, 4500PE, 510AC, 5210B, 5310B 5310C, 5540C, 9010Cm 9030B, 9040C. Organic Parameters: EPA 3510C, 3630C, 5030B, 8260B, 608, 624, 625, 8011, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330,)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1010A, 1030, 3060A, 3050B, 1311, 1312, 6010B, 6010C, 6020, , 7196A, 7471A, 7471B, 6020A, 9010C, 9012B, 9030B, 9014, 9038, 9040C, 9045D, 9251, 9050A, 9065. Organic Parameters: EPA 5030B, 5035, 3540C, 3546, 3550B, 3580A, 3620C, 3630C, 6020A, 8260B, 8260C, 8015B, 8015C, 8081A, 8081B, 8082, 8082A, 8151A, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330.)

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

Non-Potable Water (Inorganic Parameters: EPA 200.7, 200.8, 6010B, 6010C, 6020, 6020A, 245.1, 245.2, 7470A, 9040B, 9010B, 180.1. 300.0, 332.0, 6860, 353.2, 410.4, 9060, 1664A, SM 4500CN-E, 4500H-B, 4500NO3-F, 4500CL-D, 5220D, 5310C, 2130B, 2320B, 2540C, 3005A, 3015, 9010B, 9056, 7196A, 3500-Cr-D. Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A, 8082, 8082A, 8081A, 8081B, 3510C, 5030B, MassDEP EPH, MassDEP VPH.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 200.7, 6010B, 6010C, 7471A, 6860, 1311, 1312, 3050B, 7196A, 9010B, 9012A, 9040B, 9045C, 3500-CR-D, 4500CN-CE, 2540G, Organic Parameters: EPA 8260B, 8260C, 8270C, 8270D, 8270C-SIM, 8270D-SIM, 8330A/B-prep, 8082, 8082A, 8081A, 8081B, 3540C, 3546, 3580A, 5035A, MassDEP EPH, MassDEP VPH.)

The following analytes are not included in our current NELAP/TNI Scope of Accreditation:
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, Ethyl tert-butyl ether, Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE). **EPA 8260B:** 1,2,4,5-Tetramethylbenzene, 4-Ethyltoluene, 1,3,5-Trimethylbenzene. **EPA 8260 Non-potable water matrix:** Iodomethane (methyl iodide), Methyl methacrylate. **EPA 8260 Soil matrix:** Tert-amyl methyl ether (TAME), Diisopropyl ether (DIPE), Azobenzene. **EPA 8330A:** PETN, Picric Acid, Nitroglycerine, 2,6-DANT, 2,4-DANT. **EPA 8270C:** Methyl naphthalene, Dimethyl naphthalene, Total Methylnapthalenes, Total Dimethylnaphthalenes, 1,4-Diphenylhydrazine. **EPA 625:** 4-Chloroaniline, 4-Methylphenol. **EPA 8015C:** TPH. Total Phosphorus in a soil matrix, TKN in a soil matrix, NO2 in a soil matrix, NO3 in a soil matrix. **EPA 9071:** Total Petroleum Hydrocarbons, Oil & Grease.

Certificate/Approval Program Summary

Last revised August 3, 2012 – Mansfield Facility

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

Connecticut Department of Public Health Certificate/Lab ID: PH-0141.

Wastewater/Non-Potable Water (Inorganic Parameters: pH, Turbidity, Conductivity, Alkalinity, Aluminum, Antimony, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Strontium, Thallium, Tin, Titanium, Vanadium, Zinc, Total Residue (Solids), Total Suspended Solids (non-filterable). Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Acid Extractables, Benzidines, Phthalate Esters, Nitrosamines, Nitroaromatics & Isophorone, PAHs, Haloethers, Chlorinated Hydrocarbons, Volatile Organics.)

Solid Waste/Soil (Inorganic Parameters: pH, Aluminum, Antimony, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Hexavalent Chromium, Cobalt, Copper, Iron, Lead, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silver, Sodium, Thallium, Titanium, Vanadium, Zinc, Total Organic Carbon, Corrosivity, TCLP 1311, SPLP 1312. Organic Parameters: PCBs, Organochlorine Pesticides, Technical Chlordane, Toxaphene, Volatile Organics, Acid Extractables, Benzidines, Phthalates, Nitrosamines, Nitroaromatics & Cyclic Ketones, PAHs, Haloethers, Chlorinated Hydrocarbons.)

Florida Department of Health Certificate/Lab ID: E87814. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, SM2540G.)

Solid & Chemical Materials (Inorganic Parameters: 6020, 7470, 7471, 9045. Organic Parameters: EPA 8260, 8270, 8082, 8081.)

Air & Emissions (EPA TO-15.)

Louisiana Department of Environmental Quality Certificate/Lab ID: 03090. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 245.7, 1631E, 3020A, 6020A, 7470A, 9040, 9050A, SM2320B, 2540D, 2540G, 4500H-B, Organic Parameters: EPA 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 5030B, 8015D, 3570, 8081B, 8082A, 8260B, 8270C, 8270D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 1311, 3050B, 3051A, 3060A, 6020A, 7196A, 7470A, 7471B, 7474, 9040B, 9045C, 9060. Organic Parameters: EPA 3540C, 3570, 3580A, 3630C, 3640A, 3660, 3665A, 5035, 8015D, 8081B, 8082A, 8260B, 8270C, 8270D.)

Biological Tissue (Inorganic Parameters: EPA 6020A. Organic Parameters: EPA 3570, 3510C, 3610B, 3630C, 3640A, 8270C, 8270D.)

Air & Emissions (EPA TO-15.)

New Hampshire Department of Environmental Services Certificate/Lab ID: 2206. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: EPA 180.1, 1631E, 6020A, 7470A, 9040B, 9050A, SM2540D, 2540G, 4500H+B, 2320B, 3020A, . Organic Parameters: EPA 3510C, 3630C, 3640A, 3660B, 8081B, 8082A, 8270C, 8270D, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 3050B, 3051A, 6020A, 7471B, 9040B, 9045C. Organic Parameters: SW-846 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8015D, 8082A, 8081B.)

New Jersey Department of Environmental Protection Certificate/Lab ID: MA015. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SW-846 1312, 3020A, SM2320B, SM2540D, 2540G, 4500H-B, EPA 180.1, 1631E, SW-846 7470A, 9040C, 6020A, 9050A. Organic Parameters: SW-846 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D)

Solid & Chemical Materials (Inorganic Parameters: SW-846 1311, 1312, 3050B, 3051A, 6020A, 7471B, 7474, 9040B, 9040C, 9045C, 9045D, 9060. Organic Parameters: SW-846 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8081B, 8082A, 8270C, 8270D, 8015D.)

Atmospheric Organic Parameters (EPA 3C, TO-15, TO-10A, TO-13A-SIM.)

Biological Tissue (Inorganic Parameters: SW-846 6020A. Organic Parameters: SW-846 8270C, 8270D, 3510C, 3570, 3610C, 3630C, 3640A)

New York Department of Health Certificate/Lab ID: 11627. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters: SM2320B, SM2540D, 6020A, 1631E, 7470A, 9050A, EPA 180.1, 3020A. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 3510C.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 6020A, 7471B, 7474, 9040C, 9045D. Organic Parameters: EPA 8270C, 8270D, 8081B, 8082A, 1311, 3050B, 3580A, 3570, 3051A.)

Air & Emissions (EPA TO-15, TO-10A.)

Pennsylvania Certificate/Lab ID: 68-02089 ***NELAP Accredited***

Non-Potable Water (Inorganic Parameters: 1312, 1631E, 180.1, 3020A, 6020A, 7470A, 9040B, 9050A, 2320B, 2540D, 2540G, SM4500H+-B. Organic Parameters: 3510C, 3580A, 3630C, 3640A, 3660B, 3665A, 8015D, 8081B, 8082A, 8270C, 8270D .)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3051A, 6020A, 7471B, 7474 9040B, 9045C, 9060. Organic Parameters: EPA3050B, 3540C, 3570, 3580A, 3630C, 3640A, 3660B, 3665A, 8270C, 8270D, 8081B, 8015D, 8082A.)

Rhode Island Department of Health Certificate/Lab ID: LAO00299. ***NELAP Accredited via NJ-DEP.***

Refer to NJ-DEP Certificate for Non-Potable Water.

Texas Commission of Environmental Quality Certificate/Lab ID: T104704419-08-TX. ***NELAP Accredited.***

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 1311, 9040, 9045, 9060. Organic Parameters: EPA 8015, 8270, 8081, 8082.)

Air (Organic Parameters: EPA TO-15)

Virginia Division of Consolidated Laboratory Services Certificate/Lab ID:460194. ***NELAP Accredited.***

Non-Potable Water (Inorganic Parameters:EPA 3020A, 6020A, 245.7, 9040B. Organic Parameters: EPA 3510C, 3640A, 3660B, 3665A, 8270C, 8270D, 8082A, 8081B, 8015D.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020A,7470A,7471B,9040B,9045C,3050B,3051, 9060. Organic Parameters: EPA 3540C, 3580A, 3630C, 3640A, 3660B, 3665A, 3570, 8270C, 8270D, 8081B, 8082A, 8015D.)

Washington State Department of Ecology Certificate/Lab ID: C954. *Non-Potable Water* (Inorganic Parameters: SM2540D, 180.1, 1631E.)

Solid & Chemical Materials (Inorganic Parameters: EPA 6020, 7470, 7471, 7474, 9045C, 9050A, 9060. Organic Parameters: EPA 8081, 8082, 8015, 8270.)

U.S. Army Corps of Engineers

Department of Defense, L-A-B Certificate/Lab ID: L2217.01.

Non-Potable Water (Inorganic Parameters: EPA 6020A, SM4500H-B. Organic Parameters: 3020A, 3510C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH, 8082A, 8081B, 8015D-SHC, 8015D.)

Solid & Hazardous Waste (Inorganic Parameters: EPA 1311, 3050B, 6020A, 7471A, 9045C, 9060, SM 2540G, ASTM D422-63. Organic Parameters: EPA 3580A, 3570, 3540C, 8270C, 8270D, 8270C-ALK-PAH, 8270D-ALK-PAH 8082A, 8081B, 8015D-SHC, 8015D.

Air & Emissions (EPA TO-15.)

Analytes Not Accredited by NELAP

Certification is not available by NELAP for the following analytes: **8270C:** Biphenyl. **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, 2-Methylnaphthalene, 1-Methylnaphthalene.

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

ALPHA

CHAIN OF CUSTODY

LB1104 3

Turn Time ___ Standard Other Rush (3-4)
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP Navy USACE Other _____

Reporting Limits

ESS LAB PROJECT ID

Electronic Deliverable Yes ___ No X

Format: Excel __ Access __ PDF __ Other _____

Co. Name	Project #	Project Name (20 Char. or less)
GZA	17359.75	INK BLOCK

Contact Person	Address
Jennifer Lenz	133 Federal St. 3rd Floor

City	State	Zip	PO#
BOSTON	MA	02110	

Telephone #	Fax #	Email Address
(617) 963-1014		Jennifer.lenz@GZA.com

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	TSS	TRC	Chloride	Cyanide	Metals (Sb, As, Cd, Cr, Pb, Hg, Ni, Se, Ag, Tl)	Cr III	Cr VI	TPH 1664	VOC	PAH - SIM	Total Phenols	PCBs	1-4 dioxane by 8270	EDB
1 043-1	6/17/13			X	GW	G.W. (6/17/13)	1	1	P	X	X	X											
-1				X			5	1	P				X										
-1				X			4	1	P					X									
-1				X																			
-1				X			1	1	P							X							
-1				X			3	1	G								X						
-1				X			2	3	V									X					
-1				X			1	2	G										X				
-1				X			3	1	G											X			
-1				X			1	2	G														

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ___ Yes ___ No Internal Use Only

Seals Intact ___ Yes ___ No NA: ___ [ ] Pickup

Cooler Temp: _____ [ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by: Jason Clegg

Comments: For RGP Groundwater Testing / No Container for Cr III Calc only

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
[signature]	6/17/13 1545	[signature]	6/17/13 1545	[signature]	6/17/13 1620	[signature]	6/17/13 1623
[signature]	6/17/13 1730	[signature]	6/17/13 1739	[signature]	6/17/13		

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

ESS Laboratory

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

ALPHA

CHAIN OF CUSTODY

L1311043

Turn Time ___ Standard Other Rush (3-4)
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP Navy USACE Other _____

Reporting Limits

ESS LAB PROJECT ID

Electronic Deliverable Yes ___ No X
Format: Excel __ Access __ PDF __ Other _____

Co. Name	Project #	Project Name (20 Char. or less)
G2A	17359.75	INK BLOCK

Contact Person	Address
Jennifer Lenz	133 Federal St 3rd Floor

City	State	Zip	PO#
Boston	MA	02110	

Telephone #	Fax #	Email Address
(617) 963-1014		Jennifer.lenz@g2a.com

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	Write Required Analysis: 1-4 dioxane by 8270	Write Required Analysis: EDB
1043 .1	6/17/13	B/W 1200 - 1400		X	GW	G.W. (6/17/13)	1	2	G	X	
.1	↓			X	↓		2	3	✓		X

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ___ Yes ___ No
Seals Intact ___ Yes ___ No NA: ___
Cooler Temp: _____

Internal Use Only
[ ] Pickup
[ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by: Jason Clegg

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
Jason Clegg	6/17/13 1545	MCM	6/17/13 1545	MCM	6/17/13 1630	Stellatt	6/17 1816
Stellatt	6/17/13 1732	Richard Scott	6/18/13				

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

Remediation General Permit
Appendix VI

Test Methods and Minimum Levels[1] for Pollutants Covered by the RGP

Parameter *	CAS Number(s)	Inorganic Test Methods				
		ICP/AES [2] Methods 200.7, 3010A/6010C	ICP/MS [3], 200.8, 3010A/6020A	GFAA [4] Method 200.9, 7010	Other	Notes Digestion method
1. Total Suspended Solids (TSS)					Method 160.2 SM[5] 2540D (5 mg/L)	
2. Total Residual Chlorine (TRC)					Methods 330.1, 330.5, SM[5] 4500-Cl D (200 ug/L) SM[5] 4500-Cl E (10 ug/L)	
4. Cyanide (CN)	57125				Method 335.4 (5 ug/L)	OIA-1677 (5 ug/L)
38. Chloride	16887006				300.0, SM[5] 4110B (0.1 mg/L)	(other anions: bromide, fluoride, nitrite/nitrate, o-phosphate, sulfate)
39. Antimony	7440360	10 ug/L	0.5 ug/L	3 ug/L		200
40. Arsenic	7440382	20 ug/L	1.0 ug/L	3 ug/L		206.5
41. Cadmium	7440439	10 ug/L	0.2 ug/L	0.5 ug/L		200

- Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category provided in Appendix III, as well as Part 3 of the Notice of Intent (Contaminant Information) in Appendix V.
-

[1] 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.
[2] Inductively Coupled Plasmas/Atomic (optical) Emissions Spectrometry
[3] Inductively Coupled Plasmas/Mass Spectrometry
[4] Graphite Furnace Atomic Absorption
[5] Standard Method

Parameter *	CAS Number(s)	Inorganic Test Methods				
		ICP/AES [2] Methods 200.7, 3010A/6010C	ICP/MS [3], 200.8, 3010A/6020A	GFAA [4] Method 200.9, 7010	Other	Notes Digestion method
42. Chromium III	7440473	15 ug/L	1.0 ug/L	1 ug/L		200
43. Chromium VI (hexavalent)	18540299				Method 7196A (10 ug/L), Methods 218.6, 1636 (1 ug/L)	
44. Copper	7440508	15 ug/L	0.5 ug/L	3 ug/L		200
45. Lead	7439921	20 ug/L	0.2 ug/L	3 ug/L		200
46. Mercury	7439976				Method 245.1, 7470A (0.2 ug/L), Methods 245.7, 1631 (0.001 ug/l)	
47. Nickel	7440020	20 ug/L	0.2 ug/L	5 ug/L		200
48. Selenium	7782492	20 ug/L	2 ug/L	5 ug/L		200
49. Silver	7440224	10 ug/L	0.2 ug/L	1 ug/L		200
50. Zinc	7440666	15 ug/L	5 ug/L			200
51. Iron	7439896	20 ug/L	50 ug/L			200

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
3. Total Petroleum Hydrocarbons (TPH)					Method 1664A (5 mg/l)	
5. Benzene (B)	71432	Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)

[6] Gas Chromatography
[7] Gas Chromatography/Mass Spectrometry
[8] Liquid Chromatography

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
6. Toluene (T)	108883	Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)
7. Ethylbenzene (E)	100-41-4	Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)
8. (m,p,o) Xylenes (X)	108-88-3; 106-42-3; 95-47-6; 1330-20-7	Method 602 (0.5 ug/l)	Methods 624, 1624C (4 ug/L)		MA VPH (10 ug/L)	Methods 5035A/ 8260C (4 ug/L), 524.2 (0.5 ug/l)
9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX)		Method 602 (0.5 ug/l)	Methods 624, 1624C (2 ug/L)		MA VPH (5 ug/L)	Methods 5035A/ 8260C (2 ug/L), 524.2 (0.5 ug/L)
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane)	106-93-4	Method 8011, 504.1 (0.01 ug/L), Method 618 (1.0 ug/l)	Methods 524.2 (1 ug/L), SIM [9] (0.1 ug/l)			Methods 624, 5035A/8260C (10 ug/L)
11. Methyl-tert-Butyl Ether (MtBE)	1634-04-4	Method 8015D (0.5 ug/L)	Method 524.2 (10 ug/L)		MA VPH (5 ug/L)	Methods 624, 5035A/ 8260C (10 ug/L)
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75-65-0	Method 8015D (0.5 ug/L)	Method 524.2 (10 ug/L)			Methods 624, 5035A/ 8260C (10 ug/L)
13. tert-Amyl Methyl Ether (TAME)	994-05-08	Method 8015D (0.5 ug/L)	Method 524.2 (10 ug/L)			Methods 624, 5035A/ 8260C (10 ug/L)
14. Naphthalene	91-20-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA VPH (5 ug/L), MA EPH (5 ug/l)	8270D (5 ug/L), SIM (0.1 ug/L), 524.2 (0.5 ug/l), 8260C (2 ug/l)
15. Carbon Tetrachloride	56-23-5	Method 601 (0.5 ug/L)	Methods 624, 1624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
16. 1,2 Dichlorobenzene (o-DCB)	95-50-1	Methods 601, 602 (0.5 ug/L)	Methods 624, 625 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)

[9] Selected Ion Monitoring

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
17. 1,3 Dichlorobenzene (m-DCB)	541-73-1	Methods 601, 602 (0.5 ug/L)	Methods 624, 625 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
18. 1,4 Dichlorobenzene (p-DCB)	106-46-7	Methods 601, 602 (0.5 ug/L)	Methods 624, 625 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
19. 1,1 Dichloroethane (DCA)	75-34-3	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
20. 1,2 Dichloroethane (DCA)	107-06-2	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
21. 1,1 Dichloroethene (DCE)	75-35-4	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
22. cis-1,2 Dichloroethene (DCE)	156-59-2	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
23. Methylene Chloride	75-09-2	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
24. Tetrachloroethene (PCE)	127-18-4	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
25. 1,1,1 Trichloro-ethane (TCA)	71-55-6	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
26. 1,1,2 Trichloro-ethane (TCA)	79-00-5	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
27. Trichloroethene (TCE)	79-01-6	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
28. Vinyl Chloride (Chloroethene)	75-01-4	Method 601 (0.5 ug/L)	Method 624 (5 ug/L)			Methods 5035A/ 8260C (5 ug/L), 524.2 (0.5 ug/l)
29. Acetone	67-64-1	Method 524.2 (10 ug/L)	Method 1624 (50 ug/L)			Method 5035A/8260C (50 ug/L)
30. 1,4 Dioxane	123-91-1		Method 522 (0.1 ug/L)			5 ug/L, Method 8260C, 50 ug/L , Method 1624C
31. Total Phenols	108-95-2					5 ug/L, Methods 8260C, 8270D, 2 ug/L, Methods 420.1, 420.2, 50 ug/L, Method 420.4

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
32. Pentachlorophenol (PCP)	87-86-5	Method 604 (10 ug/L)	Methods 625, 1625 (10 ug/L)			Methods 3510C/8270D, 525 (5 ug/L)
33. Total Phthalates						
a. Butylbenzyl Phthalate	85687	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Methods 3510C/8270D (5 ug/L), 525.2 (0.5 ug/l)
b. Di-n-butyl Phthalate	84742	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L)
c. Diethyl Phthalate	84662	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Methods 3510C/8270D (5 ug/L), 525.2 (0.5 ug/l)
d. Dimethyl Phthalate	131113	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L)
e. Di-n-octyl Phthalate	117840	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L), 525.2 (0.5 ug/L)
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117-81-7	Method 606 (10 ug/L)	Method 625, 1625C (5 ug/L)			Method 3510C/8270D (5 ug/L), 525.2 (0.5 ug/L)
Polynuclear Aromatic Hydrocarbons (PAHs)		Methods 8310, 8315D, 610 (GC)	Methods 625, 1625	Method 610 (LC)	MA EPH	Methods 3510C/8270D, 525.2 and Selected Ion Monitoring Option (SIM)
a. Benzo(a) Anthracene	56-55-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
b. Benzo(a) Pyrene	50-32-8	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
c. Benzo(b)Fluoranthene	205-99-2	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
d. Benzo(k)Fluoranthene	207-08-9	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
e. Chrysene	218-01	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
f. Dibenzo(a,h)anthracene	53-70-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
g. Indeno(1,2,3-cd) Pyrene	193-39-5	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (0.5 ug/l)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
h. Acenaphthene	83-32-9	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
i. Acenaphthylene	208-96-8	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
j. Anthracene	120-12-7	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
k. Benzo(ghi) Perylene	191-24-2	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
l. Fluoranthene	206-44-0	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
m. Fluorene	86-73-7	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (0.5 ug/l)	MA EPH (5 ug/l	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
n. Naphthalene	91-20-3	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (2 ug/L)	MA VPH (5 ug/ll), MA EPH (5 ug/l)	8270D (5 ug/L), SIM (0.1 ug/L), 524.2 (0.5 ug/l), 8260C (2 ug/l)

Parameter	CAS Number(s)	Organic Test Methods				
		GC [6]	GC/MS [7]	HPLC [8]	State Methods	Other
o. Phenanthrene	85-01-8	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (5 ug/L)	MA EPH 5 ug/L	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
p. Pyrene	129-00-0	Method 610 (5 ug/L)	Method 625 (5 ug/l)	Method 610 (5 ug/L)	MA EPH (5 ug/L)	8270D (5 ug/L), SIM (0.1 ug/L), 525.2 (0.5 ug/L)
37. Total Polychlorinated Biphenyls (PCBs)	85-68-7; 84-74-2; 117-84-0; 84-66-2; 131-11-3; 117-81-7.	Method 608 (0.5 ug/L)				Method 8082 (0.5 ug/L), Method 1668b (0.00005 ug/L)

Notes:

Method OIA-1677 does not measure iron cyanide complexes

Methods 522, 504.1, 524, and 525.2 are drinking water methods that can be used in special situations.

Methods 3520C (continuous extraction), 3535A (Solid Phase Extraction), and 3510C (separatory funnel extraction) are comparable organic preparation methods.

Method 8270D must be preceded by either Method 3520C or Method 3535 as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). 1. 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). Where a minimum level (ML) is listed but a test method is not specified, permittee may use any of the available methods approved for use under 40 CFR 136, including alternatives approved by this permit, that meets that ML. See EPA's "Methods and Guidance for the Analysis of Water" at www.epa.gov/water/owrccatalog.nsf. Where test method is specified but ML not listed for that method, the lowest ML for listed methods must be used before concentration can be considered as "non-detect."

For measuring volatile organic compounds, Method 8260C (or the latest version) may be used as a substitute for CWA Methods 524.2, 602, 624, or 1624. Method 8260C must be preceded by Method 5030 as the preparation method. However, any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8260C.

For measuring semi-volatile organic compounds, Method 8270D may be used as a substitute for Methods 610, 625, or 1625. Method 8270D must be preceded by Method 3535 or Method 3520C as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). Any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8270D.

From: Michelle Mirenda
To: Michelle Mirenda
Cc: Luis Galindo
Subject: RGP standard bottle order
Date: Tuesday, April 09, 2013 10:51:08 AM
Attachments: image002.png

Please save this for future reference when someone requests bottle order for RGP

ESS will fill the bottle order to meet RGP required testing.

■ TSS	
■ TRC	1000ml plastic NP
■ Chloride	
■ Cyanide	250ml plastic w/NAOH
■ Metals (Sb, As, Cd, Cu Pb, Hg, Ni, Se, Ag, Zn, Fe)	250ml plastic w/HNO3
■ Cr^{III}	none – calculation only
■ Cr^{VI}	250ml plastic NP
■ TPH 1664	1000ml amber w/H2SO4
■ VOC	3 x 40ml amber vial w/HCL
■ PAH-SIM	2 x 1000ml amber NP
■ Total Phenols	1000ml amber w/H2SO4
■ PCBs	2 x 1000ml amber NP
■ 1-4 dioxane by 8270	2 x 1000ml amber NP
■ EDB	3 x 40ml amber vial w/HCL

4B11043

Serial No:06361316:51

L1311093

ESS Laboratory

ALPHA

Division of Thielsch Engineering, Inc.
185 Frances Avenue, Cranston, RI 02910-2211
Tel. (401) 461-7181 Fax (401) 461-4486
www.esslaboratory.com

CHAIN OF CUSTODY

Turn Time ___ Standard Other Rush (3-4)
If faster than 5 days, prior approval by laboratory is required # _____

State where samples were collected from:
(MA) RI CT NH NJ NY ME Other _____

Is this project for any of the following:
MA-MCP Navy USACE Other _____

Reporting Limits

ESS LAB PROJECT ID

Electronic Deliverable Yes ___ No X
Format: Excel __ Access __ PDF __ Other _____

Co. Name	Project #	Project Name (20 Char. or less)
GZA	17359.75	INK BLOCK

Contact Person	Address
Jennifer Lenz	133 Federal St 3rd Floor

City	State	Zip	PO#
Boston	MA	02110	

Telephone #	Fax #	Email Address
(617) 963-1014		Jennifer.lenz@gza.com

Write Required Analysis: 1-4 dioxane by 8270 SIM

ESS LAB Sample #	Date	Collection Time	COMP	GRAB	MATRIX	Sample Identification (20 Char. or less)	Pres Code	Number of Containers	Type of Containers	1-4 dioxane by 8270 SIM	EDD
1043 .1	6/17/13	B/U 1200 - 1400		X	GW	G.W. (6/17/13)	1	2	G	X	
.1	↓			X	↓		2	3	V		X

Container Type: P-Poly G-Glass S-Sterile V-VOA

Matrix: S-Soil SD-Solid D-Sludge WW-Waste Water GW-Ground Water SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filters

Cooler Present ___ Yes ___ No Internal Use Only
Seals Intact ___ Yes ___ No NA: ___ [ ] Pickup
Cooler Temp: _____ [ ] Technicians _____

Preservation Code 1- NP, 2- HCl, 3- H_2SO_4, 4- HNO_3, 5- NaOH, 6- MeOH, 7- Asorbic Acid, 8- ZnAct, 9- _____

Sampled by: Jason Clegg

Comments:

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time	Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Date/Time
	6/17/13 1545		6/17/13 1545		6/18/13 1030		6/17 1816
	6/17/13 1730		6/17/13 1730		6/18/13 0345		6/18/13 0345

*By circling MA-MCP, client acknowledges samples were collected in accordance with MADEP CAM VII A

Please fax all changes to Chain of Custody in writing.

1 (White) Lab Copy 2 (Yellow) Client Receipt

10/26/04 A

CERTIFICATE OF ANALYSIS

Dean Giuliano
GZA GeoEnvironmental, Inc.
249 Vanderbilt Avenue
Norwood, MA 02062

RE: Harrison Boulevard Boston (01.0019359.09)
ESS Laboratory Work Order Number: 1301172

This signed Certificate of Analysis is our approved release of your analytical results. These results are only representative of sample aliquots received at the laboratory. ESS Laboratory expects its clients to follow all regulatory sampling guidelines. Beginning with this page, the entire report has been paginated. This report should not be copied except in full without the approval of the laboratory. Samples will be disposed of thirty days after the final report has been delivered. If you have any questions or concerns, please feel free to call our Customer Service Department.

Laurel Stoddard
Laboratory Director

REVIEWED
By ESS Laboratory at 1:30 pm, Jan 21, 2013

Analytical Summary
The project as described above has been analyzed in accordance with the ESS Quality Assurance Plan. This plan utilizes the following methodologies: US EPA SW-846, US EPA Methods for Chemical Analysis of Water and Wastes per 40 CFR Part 136, APHA Standard Methods for the Examination of Water and Wastewater, American Society for Testing and Materials (ASTM), and other recognized methodologies. The analyses with these noted observations are in conformance to the Quality Assurance Plan. In chromatographic analysis, manual integration is frequently used instead of automated integration because it produces more accurate results.

The test results present in this report are in compliance with NELAC Standards, A2LA and/or client Quality Assurance Project Plans (QAPP). The laboratory has reviewed the following: Sample Preservations, Hold Times, Initial Calibrations, Continuing Calibratins, Method Blanks, Blank Spikes, Blank Spike Duplicates, Duplicates, Matrix Spikes, Matrix Spike Duplicates, Surrogates and Internal Standards. Any results which were found to be outside of the recommended ranges stated in our SOPs will be noted in the Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

SAMPLE RECEIPT

The following samples were received on January 11, 2013 for the analyses specified on the enclosed Chain of Custody Record.

Lab Number	SampleName	Matrix	Analysis
1301172-01	MW-1	Ground Water	150.1, 200.7, 245.1, 608, 624, 625
1301172-02	GZ-3	Ground Water	624, EPH8270, MADEP-EPH
1301172-03	MW-106	Ground Water	EPH8270, MADEP-EPH, MADEP-VPH

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston ESS Laboratory Work Order: 1301172

PROJECT NARRATIVE

608/6630C Organochlorine Pesticides
CA31516-BSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
Aldrin (23%), alpha-BHC (21%), Heptachlor (22%)

624 Volatile Organic Compounds
CA31410-BSD1 **Blank Spike recovery is above upper control limit (B+).**
Acrolein - Screen (131% @ 70-130%)

625 Semi-Volatile Organic Compounds
CA31415-BS1 **Blank Spike recovery is above upper control limit (B+).**
2,4-Dinitrophenol (131% @ 30-130%)
CWA0166-CCV1 **Calibration required quadratic regression (Q).**
2,4-Dinitrophenol (183% @ 70-130%)
CWA0166-CCV1 **Continuing Calibration recovery is above upper control limit (C+).**
2,4-Dinitrophenol (183% @ 70-130%)
CWA0166-CCV1 **Initial Calibration Verification recovery is outside of control limit (ICV).**
2,4-Dinitrophenol , Benzidine , Hexachlorocyclopentadiene

Classical Chemistry
1301172-01 **The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.**

No other observations noted.

End of Project Narrative.

DATA USABILITY LINKS

Definitions of Quality Control Parameters

Semivolatile Organics Internal Standard Information

Semivolatile Organics Surrogate Information

Volatile Organics Internal Standard Information

Volatile Organics Surrogate Information

EPH and VPH Alkane Lists

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

CURRENT SW-846 METHODOLOGY VERSIONS

Analytical Methods

1010A - Flashpoint
6010C - ICP
6020A - ICP MS
7010 - Graphite Furnace
7196A - Hexavalent Chromium
7470A - Aqueous Mercury
7471B - Solid Mercury
8011 - EDB/DBCP/TCP
8015C - GRO/DRO
8081B - Pesticides
8082A - PCB
8100M - TPH
8151A - Herbicides
8260B - VOA
8270D - SVOA
8270D SIM - SVOA Low Level
9014 - Cyanide
9038 - Sulfate
9040C - Aqueous pH
9045D - Solid pH (Corrosivity)
9050A - Specific Conductance
9056A - Anions (IC)
9060A - TOC
9095B - Paint Filter
MADEP 04-1.1 - EPH / VPH

Prep Methods

3005A - Aqueous ICP Digestion
3020A - Aqueous Graphite Furnace / ICP MS Digestion
3050B - Solid ICP / Graphite Furnace / ICP MS Digestion
3060A - Solid Hexavalent Chromium Digestion
3510C - Separatory Funnel Extraction
3520C - Liquid / Liquid Extraction
3540C - Manual Soxhlet Extraction
3541 - Automated Soxhlet Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A

Dissolved Metals

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Antimony	ND (25)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Arsenic	ND (25)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Cadmium	ND (2.5)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Chromium	ND (10)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Copper	ND (10)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Lead	ND (10)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Mercury	ND (0.00020)	245.1		1	JP	01/15/13 18:14	20	40	CA31502
Nickel	ND (25)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Selenium	ND (25)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Silver	ND (5)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201
Zinc	ND (25)	200.7		1	SVD	01/12/13 18:43	50	25	CA31201

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A

Total Metals

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Antimony	ND (25)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Arsenic	ND (25)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Cadmium	ND (2)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Chromium	ND (10)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Copper	ND (10)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Lead	ND (10)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Nickel	ND (25)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Selenium	ND (25)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Silver	ND (5.0)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201
Zinc	**36** (25)	200.7		1	SVD	01/12/13 18:47	50	25	CA31201

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 1/15/13 11:30

608 Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1221	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1232	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1242	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1248	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1254	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1260	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1262	ND (0.09)	608		1	01/16/13 23:12		CA31511
Aroclor 1268	ND (0.09)	608		1	01/16/13 23:12		CA31511

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*58 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*53 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*44 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*53 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 5
Extraction Method: 3510C

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 1/15/13 12:30

608/6630C Organochlorine Pesticides

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
4,4´-DDD	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
4,4´-DDE	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
4,4´-DDT	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Aldrin	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
alpha-BHC	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
beta-BHC	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Chlordane (Total)	ND (0.47)	608		1	01/15/13 21:20	CWA0145	CA31516
delta-BHC	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Dieldrin	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Endosulfan I	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Endosulfan II	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Endosulfan Sulfate	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Endrin	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Endrin Aldehyde	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
gamma-BHC (Lindane)	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Heptachlor	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Heptachlor Epoxide	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Methoxychlor	ND (0.05)	608		1	01/15/13 21:20	CWA0145	CA31516
Toxaphene	ND (1.21)	608		1	01/15/13 21:20	CWA0145	CA31516

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*57 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*56 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*53 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*52 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: MM

624 Volatile Organic Compounds

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1-Trichloroethane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,1,2,2-Tetrachloroethane	ND (0.5)	624		1	01/14/13 13:39	CWA0121	CA31410
1,1,2-Trichloroethane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,1-Dichloroethane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,1-Dichloroethene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,2-Dichlorobenzene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,2-Dichloroethane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,2-Dichloropropane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,3-Dichlorobenzene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
1,4-Dichlorobenzene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
2-Chloroethyl vinyl ether	ND (10.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Acrolein - Screen	ND (5.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Acrylonitrile - Screen	ND (5.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Benzene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Bromodichloromethane	ND (0.6)	624		1	01/14/13 13:39	CWA0121	CA31410
Bromoform	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Bromomethane	ND (2.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Carbon Tetrachloride	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Chlorobenzene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Chloroethane	ND (2.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Chloroform	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Chloromethane	ND (2.0)	624		1	01/14/13 13:39	CWA0121	CA31410
cis-1,2-Dichloroethene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
cis-1,3-Dichloropropene	ND (0.4)	624		1	01/14/13 13:39	CWA0121	CA31410
Dibromochloromethane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Ethylbenzene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Methylene Chloride	ND (4.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Tetrachloroethene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Toluene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
trans-1,2-Dichloroethene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
trans-1,3-Dichloropropene	ND (0.5)	624		1	01/14/13 13:39	CWA0121	CA31410

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: MM

624 Volatile Organic Compounds

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
Trichloroethene	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Trichlorofluoromethane	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410
Vinyl Chloride	ND (1.0)	624		1	01/14/13 13:39	CWA0121	CA31410

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*104 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*106 %*		*70-130*
Surrogate: Dibromofluoromethane	*103 %*		*70-130*
Surrogate: Toluene-d8	*100 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3520C

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 1/14/13 19:00

625 Semi-Volatile Organic Compounds

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
1,2,4-Trichlorobenzene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
1,2-Dichlorobenzene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
1,2-Diphenylhydrazine as Azobenzene	ND (18.7)	625		1	01/15/13 23:14	CWA0166	CA31415
1,3-Dichlorobenzene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
1,4-Dichlorobenzene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2,4,6-Trichlorophenol	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2,4-Dichlorophenol	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2,4-Dimethylphenol	ND (46.7)	625		1	01/15/13 23:14	CWA0166	CA31415
2,4-Dinitrophenol	ND (46.7)	625		1	01/15/13 23:14	CWA0166	CA31415
2,4-Dinitrotoluene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2,6-Dinitrotoluene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2-Chloronaphthalene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2-Chlorophenol	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
2-Nitrophenol	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
3,3´-Dichlorobenzidine	ND (18.7)	625		1	01/15/13 23:14	CWA0166	CA31415
4,6-Dinitro-2-Methylphenol	ND (46.7)	625		1	01/15/13 23:14	CWA0166	CA31415
4-Bromophenyl-phenylether	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
4-Chloro-3-Methylphenol	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
4-Chloro-phenyl-phenyl ether	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
4-Nitrophenol	ND (46.7)	625		1	01/15/13 23:14	CWA0166	CA31415
Acenaphthene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Acenaphthylene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Anthracene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Benzidine	ND (46.7)	625		1	01/15/13 23:14	CWA0166	CA31415
Benzo(a)anthracene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Benzo(a)pyrene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Benzo(b)fluoranthene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Benzo(g,h,i)perylene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Benzo(k)fluoranthene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
bis(2-Chloroethoxy)methane	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
bis(2-Chloroethyl)ether	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3520C

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 1/14/13 19:00

625 Semi-Volatile Organic Compounds

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
bis(2-chloroisopropyl)Ether	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
bis(2-Ethylhexyl)phthalate	ND (5.6)	625		1	01/15/13 23:14	CWA0166	CA31415
Butylbenzylphthalate	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Chrysene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Dibenzo(a,h)Anthracene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Diethylphthalate	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Dimethylphthalate	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Di-n-butylphthalate	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Di-n-octylphthalate	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Fluoranthene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Fluorene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Hexachlorobenzene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Hexachlorobutadiene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Hexachlorocyclopentadiene	ND (23.4)	625		1	01/15/13 23:14	CWA0166	CA31415
Hexachloroethane	ND (4.7)	625		1	01/15/13 23:14	CWA0166	CA31415
Indeno(1,2,3-cd)Pyrene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Isophorone	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Naphthalene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Nitrobenzene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
N-Nitrosodimethylamine	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
N-Nitroso-Di-n-Propylamine	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
N-nitrosodiphenylamine	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Pentachlorophenol	ND (46.7)	625		1	01/15/13 23:14	CWA0166	CA31415
Phenanthrene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Phenol	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415
Pyrene	ND (9.3)	625		1	01/15/13 23:14	CWA0166	CA31415

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	*60 %*		*30-130*
Surrogate: 2,4,6-Tribromophenol	*92 %*		*15-110*
Surrogate: 2-Chlorophenol-d4	*70 %*		*15-110*
Surrogate: 2-Fluorobiphenyl	*65 %*		*30-130*
Surrogate: 2-Fluorophenol	*63 %*		*15-110*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3520C

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 1/14/13 19:00

625 Semi-Volatile Organic Compounds

Analyte	Results (MRL)		Method	Limit	DF	Analyzed	Sequence	Batch
Surrogate: Nitrobenzene-d5		*67 %*		*30-130*				
Surrogate: Phenol-d6		*76 %*		*15-110*				
Surrogate: p-Terphenyl-d14		*89 %*		*30-130*				

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: MW-1
Date Sampled: 01/10/13 10:30
Percent Solids: N/A

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-01
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	Units	Batch
pH	**7.66** (N/A)	150.1		1	LLZ	01/11/13 15:37	S.U.	CA31109
pH Sample Temp	**Aqueous pH measured in water at 20.1 ºC.** (N/A)							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: GZ-3
Date Sampled: 01/10/13 12:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-02
Sample Matrix: Ground Water
Units: ug/L
Analyst: MM

624 Volatile Organic Compounds

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1-Trichloroethane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,1,2,2-Tetrachloroethane	ND (0.5)	624		1	01/14/13 14:07	CWA0121	CA31410
1,1,2-Trichloroethane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,1-Dichloroethane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,1-Dichloroethene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,2-Dichlorobenzene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,2-Dichloroethane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,2-Dichloropropane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,3-Dichlorobenzene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
1,4-Dichlorobenzene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
2-Chloroethyl vinyl ether	ND (10.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Acrolein - Screen	ND (5.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Acrylonitrile - Screen	ND (5.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Benzene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Bromodichloromethane	ND (0.6)	624		1	01/14/13 14:07	CWA0121	CA31410
Bromoform	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Bromomethane	ND (2.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Carbon Tetrachloride	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Chlorobenzene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Chloroethane	ND (2.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Chloroform	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Chloromethane	ND (2.0)	624		1	01/14/13 14:07	CWA0121	CA31410
cis-1,2-Dichloroethene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
cis-1,3-Dichloropropene	ND (0.4)	624		1	01/14/13 14:07	CWA0121	CA31410
Dibromochloromethane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Ethylbenzene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Methylene Chloride	ND (4.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Tetrachloroethene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Toluene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
trans-1,2-Dichloroethene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
trans-1,3-Dichloropropene	ND (0.5)	624		1	01/14/13 14:07	CWA0121	CA31410

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: GZ-3
Date Sampled: 01/10/13 12:20
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-02
Sample Matrix: Ground Water
Units: ug/L
Analyst: MM

624 Volatile Organic Compounds

Analyte	Results (MRL)	Method	Limit	DF	Analyzed	Sequence	Batch
Trichloroethene	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Trichlorofluoromethane	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410
Vinyl Chloride	ND (1.0)	624		1	01/14/13 14:07	CWA0121	CA31410

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*104 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*105 %*		*70-130*
Surrogate: Dibromofluoromethane	*103 %*		*70-130*
Surrogate: Toluene-d8	*102 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston
Client Sample ID: GZ-3
Date Sampled: 01/10/13 12:20
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 1301172
ESS Laboratory Sample ID: 1301172-02
Sample Matrix: Ground Water
Units: ug/L

Prepared: 1/15/13 15:00

MADEP-EPH Extractable Petroleum Hydrocarbons

Analyte	Results (MRL)	Method	Limit	DF	Analyst	Analyzed	Sequence	Batch
C9-C18 Aliphatics1	ND (140)	MADEP-EPH		1	SEP	01/16/13 16:44	CWA0160	CA31505
C19-C36 Aliphatics1	ND (93)	MADEP-EPH		1	SEP	01/16/13 16:44	CWA0160	CA31505
C11-C22 Unadjusted Aromatics1	ND (93.5)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
C11-C22 Aromatics1,2	ND (93.5)	EPH8270			SEP	01/16/13 15:27		[CALC]
2-Methylnaphthalene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Acenaphthene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Naphthalene	ND (9.3)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Phenanthrene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Acenaphthylene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Anthracene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Benzo(a)anthracene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Benzo(a)pyrene	ND (9.3)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Benzo(b)fluoranthene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Benzo(g,h,i)perylene	ND (9.3)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Benzo(k)fluoranthene	ND (9.3)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Chrysene	ND (9.3)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Dibenzo(a,h)Anthracene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Fluoranthene	ND (9.3)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Fluorene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Indeno(1,2,3-cd)Pyrene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Pyrene	ND (4.7)	EPH8270		1	SEP	01/16/13 15:27	CWA0156	CA31505
Preservative:	**pH <= 2**	MADEP-EPH			JPP			CA31505

	%Recovery	Qualifier	Limits
Surrogate: 1-Chlorooctadecane	*65 %*		*40-140*
Surrogate: 2-Bromonaphthalene	*99 %*		*40-140*
Surrogate: 2-Fluorobiphenyl	*96 %*		*40-140*
Surrogate: O-Terphenyl	*78 %*		*40-140*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Dissolved Metals										
Batch CA31201 - 3005A										
Blank										
Antimony	ND	25	ug/L							
Arsenic	ND	25	ug/L							
Cadmium	ND	2.5	ug/L							
Chromium	ND	10	ug/L							
Copper	ND	10	ug/L							
Lead	ND	10	ug/L							
Nickel	ND	25	ug/L							
Selenium	ND	25	ug/L							
Silver	ND	5	ug/L							
Zinc	ND	25	ug/L							
LCS										
Antimony	249	25	ug/L	250.0		99	80-120			
Arsenic	258	25	ug/L	250.0		103	80-120			
Cadmium	127	2.5	ug/L	125.0		101	80-120			
Chromium	269	10	ug/L	250.0		108	80-120			
Copper	274	10	ug/L	250.0		109	80-120			
Lead	262	10	ug/L	250.0		105	80-120			
Nickel	267	25	ug/L	250.0		107	85-115			
Selenium	500	25	ug/L	500.0		100	80-120			
Silver	139	5	ug/L	125.0		111	80-120			
Zinc	254	25	ug/L	250.0		102	85-115			
LCS Dup										
Antimony	245	25	ug/L	250.0		98	80-120	2	20	
Arsenic	257	25	ug/L	250.0		103	80-120	0.3	20	
Cadmium	125	2.5	ug/L	125.0		100	80-120	0.9	20	
Chromium	267	10	ug/L	250.0		107	80-120	0.8	20	
Copper	270	10	ug/L	250.0		108	80-120	2	20	
Lead	258	10	ug/L	250.0		103	80-120	2	20	
Nickel	265	25	ug/L	250.0		106	85-115	0.8	20	
Selenium	500	25	ug/L	500.0		100	80-120	0.1	20	
Silver	138	5	ug/L	125.0		111	80-120	0.3	20	
Zinc	252	25	ug/L	250.0		101	85-115	0.9	20	
Batch CA31502 - 245.1/7470A										
Blank										
Mercury	ND	0.00020	mg/L							
LCS										
Mercury	0.00583	0.00020	mg/L	0.006000		97	85-115			
LCS Dup										
Mercury	0.00594	0.00020	mg/L	0.006000		99	85-115	2	20	
Total Metals										
Batch CA31201 - 3005A										

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch CA31201 - 3005A										
Blank										
Antimony	ND	25	ug/L							
Arsenic	ND	25	ug/L							
Cadmium	ND	2	ug/L							
Chromium	ND	10	ug/L							
Copper	ND	10	ug/L							
Lead	ND	10	ug/L							
Nickel	ND	25	ug/L							
Selenium	ND	25	ug/L							
Silver	ND	5.0	ug/L							
Zinc	ND	25	ug/L							
LCS										
Antimony	249	25	ug/L	250.0		99	80-120			
Arsenic	258	25	ug/L	250.0		103	80-120			
Cadmium	127	2	ug/L	125.0		101	85-115			
Chromium	269	10	ug/L	250.0		108	85-115			
Copper	274	10	ug/L	250.0		109	85-115			
Lead	262	10	ug/L	250.0		105	85-115			
Nickel	267	25	ug/L	250.0		107	85-115			
Selenium	500	25	ug/L	500.0		100	80-120			
Silver	139	5.0	ug/L	125.0		111	85-115			
Zinc	254	25	ug/L	250.0		102	85-115			
LCS Dup										
Antimony	245	25	ug/L	250.0		98	80-120	2	20	
Arsenic	257	25	ug/L	250.0		103	80-120	0.3	20	
Cadmium	125	2	ug/L	125.0		100	85-115	0.9	20	
Chromium	267	10	ug/L	250.0		107	85-115	0.8	20	
Copper	270	10	ug/L	250.0		108	85-115	2	20	
Lead	258	10	ug/L	250.0		103	85-115	2	20	
Nickel	265	25	ug/L	250.0		106	85-115	0.8	20	
Selenium	500	25	ug/L	500.0		100	80-120	0.1	20	
Silver	138	5.0	ug/L	125.0		111	85-115	0.3	20	
Zinc	252	25	ug/L	250.0		101	85-115	0.9	20	
608 Polychlorinated Biphenyls (PCB)										
Batch CA31511 - 3510C										
Blank										
Aroclor 1016	ND	0.10	ug/L							
Aroclor 1221	ND	0.10	ug/L							
Aroclor 1232	ND	0.10	ug/L							
Aroclor 1242	ND	0.10	ug/L							
Aroclor 1248	ND	0.10	ug/L							
Aroclor 1254	ND	0.10	ug/L							
Aroclor 1260	ND	0.10	ug/L							

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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
608 Polychlorinated Biphenyls (PCB)										
Batch CA31511 - 3510C										
Aroclor 1262	ND	0.10	ug/L							
Aroclor 1268	ND	0.10	ug/L							
Surrogate: Decachlorobiphenyl	*0.0311*		ug/L	*0.05000*		*62*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0284*		ug/L	*0.05000*		*57*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0300*		ug/L	*0.05000*		*60*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0375*		ug/L	*0.05000*		*75*	*30-150*			
LCS										
Aroclor 1016	0.98	0.10	ug/L	1.000		98	40-140			
Aroclor 1260	0.83	0.10	ug/L	1.000		83	40-140			
Surrogate: Decachlorobiphenyl	*0.0368*		ug/L	*0.05000*		*74*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0337*		ug/L	*0.05000*		*67*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0309*		ug/L	*0.05000*		*62*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0381*		ug/L	*0.05000*		*76*	*30-150*			
LCS Dup										
Aroclor 1016	0.94	0.10	ug/L	1.000		94	40-140	4	50	
Aroclor 1260	0.80	0.10	ug/L	1.000		80	40-140	4	50	
Surrogate: Decachlorobiphenyl	*0.0349*		ug/L	*0.05000*		*70*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0319*		ug/L	*0.05000*		*64*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0294*		ug/L	*0.05000*		*59*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0352*		ug/L	*0.05000*		*70*	*30-150*			
608/6630C Organochlorine Pesticides										
Batch CA31516 - 3510C										
Blank										
4,4´-DDD	ND	0.05	ug/L							
4,4´-DDE	ND	0.05	ug/L							
4,4´-DDT	ND	0.05	ug/L							
Aldrin	ND	0.05	ug/L							
alpha-BHC	ND	0.05	ug/L							
beta-BHC	ND	0.05	ug/L							
Chlordane (Total)	ND	0.50	ug/L							
delta-BHC	ND	0.05	ug/L							
Dieldrin	ND	0.05	ug/L							
Endosulfan I	ND	0.05	ug/L							
Endosulfan II	ND	0.05	ug/L							
Endosulfan Sulfate	ND	0.05	ug/L							
Endrin	ND	0.05	ug/L							
Endrin Aldehyde	ND	0.05	ug/L							
gamma-BHC (Lindane)	ND	0.05	ug/L							
Heptachlor	ND	0.05	ug/L							
Heptachlor Epoxide	ND	0.05	ug/L							
Methoxychlor	ND	0.05	ug/L							

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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
608/6630C Organochlorine Pesticides										
Batch CA31516 - 3510C										
Toxaphene	ND	1.30	ug/L							
Surrogate: Decachlorobiphenyl	*0.212*		ug/L	*0.2500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.211*		ug/L	*0.2500*		*84*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.155*		ug/L	*0.2500*		*62*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.155*		ug/L	*0.2500*		*62*	*30-150*			
LCS										
4,4´-DDD	0.22	0.05	ug/L	0.2500		89	40-140			
4,4´-DDE	0.21	0.05	ug/L	0.2500		83	40-140			
4,4´-DDT	0.23	0.05	ug/L	0.2500		91	40-140			
Aldrin	0.17	0.05	ug/L	0.2500		68	40-140			
alpha-BHC	0.16	0.05	ug/L	0.2500		65	40-140			
beta-BHC	0.20	0.05	ug/L	0.2500		81	40-140			
delta-BHC	0.14	0.05	ug/L	0.2500		54	40-140			
Dieldrin	0.20	0.05	ug/L	0.2500		81	40-140			
Endosulfan I	0.19	0.05	ug/L	0.2500		77	40-140			
Endosulfan II	0.22	0.05	ug/L	0.2500		86	40-140			
Endosulfan Sulfate	0.20	0.05	ug/L	0.2500		80	40-140			
Endrin	0.23	0.05	ug/L	0.2500		91	40-140			
Endrin Aldehyde	0.21	0.05	ug/L	0.2500		85	40-140			
gamma-BHC (Lindane)	0.18	0.05	ug/L	0.2500		70	40-140			
Heptachlor	0.16	0.05	ug/L	0.2500		64	40-140			
Heptachlor Epoxide	0.19	0.05	ug/L	0.2500		76	40-140			
Methoxychlor	0.23	0.05	ug/L	0.2500		93	40-140			
Surrogate: Decachlorobiphenyl	*0.213*		ug/L	*0.2500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.212*		ug/L	*0.2500*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.152*		ug/L	*0.2500*		*61*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.160*		ug/L	*0.2500*		*64*	*30-150*			
LCS Dup										
4,4´-DDD	0.25	0.05	ug/L	0.2500		98	40-140	10	20	
4,4´-DDE	0.24	0.05	ug/L	0.2500		96	40-140	14	20	
4,4´-DDT	0.25	0.05	ug/L	0.2500		101	40-140	11	20	
Aldrin	0.21	0.05	ug/L	0.2500		85	40-140	23	20	D+
alpha-BHC	0.20	0.05	ug/L	0.2500		81	40-140	21	20	D+
beta-BHC	0.23	0.05	ug/L	0.2500		92	40-140	13	20	
delta-BHC	0.15	0.05	ug/L	0.2500		61	40-140	12	20	
Dieldrin	0.23	0.05	ug/L	0.2500		94	40-140	15	20	
Endosulfan I	0.23	0.05	ug/L	0.2500		91	40-140	17	20	
Endosulfan II	0.24	0.05	ug/L	0.2500		96	40-140	10	20	
Endosulfan Sulfate	0.22	0.05	ug/L	0.2500		86	40-140	8	20	
Endrin	0.26	0.05	ug/L	0.2500		105	40-140	14	20	
Endrin Aldehyde	0.22	0.05	ug/L	0.2500		90	40-140	6	20	
gamma-BHC (Lindane)	0.21	0.05	ug/L	0.2500		86	40-140	20	20	
Heptachlor	0.20	0.05	ug/L	0.2500		81	40-140	22	20	D+
Heptachlor Epoxide	0.22	0.05	ug/L	0.2500		90	40-140	17	20	

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Quality Control Data

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608/6630C Organochlorine Pesticides										
Batch CA31516 - 3510C										
Methoxychlor	0.24	0.05	ug/L	0.2500		97	40-140	4	20	
Surrogate: Decachlorobiphenyl	*0.213*		ug/L	*0.2500*		*85*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.208*		ug/L	*0.2500*		*83*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.190*		ug/L	*0.2500*		*76*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.201*		ug/L	*0.2500*		*80*	*30-150*			
624 Volatile Organic Compounds										
Batch CA31410 - 5030B										
Blank										
1,1,1-Trichloroethane	ND	1.0	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L							
1,1,2-Trichloroethane	ND	1.0	ug/L							
1,1-Dichloroethane	ND	1.0	ug/L							
1,1-Dichloroethene	ND	1.0	ug/L							
1,2-Dichlorobenzene	ND	1.0	ug/L							
1,2-Dichloroethane	ND	1.0	ug/L							
1,2-Dichloropropane	ND	1.0	ug/L							
1,3-Dichlorobenzene	ND	1.0	ug/L							
1,4-Dichlorobenzene	ND	1.0	ug/L							
2-Chloroethyl vinyl ether	ND	10.0	ug/L							
Acrolein - Screen	ND	5.0	ug/L							
Acrylonitrile - Screen	ND	5.0	ug/L							
Benzene	ND	1.0	ug/L							
Bromodichloromethane	ND	0.6	ug/L							
Bromoform	ND	1.0	ug/L							
Bromomethane	ND	2.0	ug/L							
Carbon Tetrachloride	ND	1.0	ug/L							
Chlorobenzene	ND	1.0	ug/L							
Chloroethane	ND	2.0	ug/L							
Chloroform	ND	1.0	ug/L							
Chloromethane	ND	2.0	ug/L							
cis-1,2-Dichloroethene	ND	1.0	ug/L							
cis-1,3-Dichloropropene	ND	0.4	ug/L							
Dibromochloromethane	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
Methylene Chloride	ND	4.0	ug/L							
Tetrachloroethene	ND	1.0	ug/L							
Toluene	ND	1.0	ug/L							
trans-1,2-Dichloroethene	ND	1.0	ug/L							
trans-1,3-Dichloropropene	ND	0.5	ug/L							
Trichloroethene	ND	1.0	ug/L							
Trichlorofluoromethane	ND	1.0	ug/L							
Vinyl Chloride	ND	1.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	*26.2*		ug/L	*25.00*		*105*	*70-130*			

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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
624 Volatile Organic Compounds										
Batch CA31410 - 5030B										
Surrogate: 4-Bromofluorobenzene	*26.8*		ug/L	*25.00*		*107*	*70-130*			
Surrogate: Dibromofluoromethane	*26.1*		ug/L	*25.00*		*104*	*70-130*			
Surrogate: Toluene-d8	*25.8*		ug/L	*25.00*		*103*	*70-130*			
LCS										
1,1,1-Trichloroethane	10.2		ug/L	10.00		102	70-130			
1,1,2,2-Tetrachloroethane	9.7		ug/L	10.00		97	70-130			
1,1,2-Trichloroethane	10.7		ug/L	10.00		107	70-130			
1,1-Dichloroethane	9.9		ug/L	10.00		99	70-130			
1,1-Dichloroethene	10.6		ug/L	10.00		106	70-130			
1,2-Dichlorobenzene	10.4		ug/L	10.00		104	70-130			
1,2-Dichloroethane	10.6		ug/L	10.00		106	70-130			
1,2-Dichloropropane	10.1		ug/L	10.00		101	70-130			
1,3-Dichlorobenzene	10.0		ug/L	10.00		100	70-130			
1,4-Dichlorobenzene	9.7		ug/L	10.00		97	70-130			
2-Chloroethyl vinyl ether	52.1		ug/L	50.00		104	70-130			
Acrolein - Screen	11.1		ug/L	10.00		111	70-130			
Acrylonitrile - Screen	10.7		ug/L	10.00		107	70-130			
Benzene	10.9		ug/L	10.00		109	70-130			
Bromodichloromethane	10.8		ug/L	10.00		108	70-130			
Bromoform	8.6		ug/L	10.00		86	70-130			
Bromomethane	10.1		ug/L	10.00		101	70-130			
Carbon Tetrachloride	10.1		ug/L	10.00		101	70-130			
Chlorobenzene	10.1		ug/L	10.00		101	70-130			
Chloroethane	8.7		ug/L	10.00		87	70-130			
Chloroform	11.1		ug/L	10.00		111	70-130			
Chloromethane	9.4		ug/L	10.00		94	70-130			
cis-1,2-Dichloroethene	10.8		ug/L	10.00		108	70-130			
cis-1,3-Dichloropropene	11.6		ug/L	10.00		116	70-130			
Dibromochloromethane	8.8		ug/L	10.00		88	70-130			
Ethylbenzene	9.8		ug/L	10.00		98	70-130			
Methylene Chloride	10.8		ug/L	10.00		108	70-130			
Tetrachloroethene	9.2		ug/L	10.00		92	70-130			
Toluene	10.9		ug/L	10.00		109	70-130			
trans-1,2-Dichloroethene	10.6		ug/L	10.00		106	70-130			
trans-1,3-Dichloropropene	9.7		ug/L	10.00		97	70-130			
Trichloroethene	9.9		ug/L	10.00		99	70-130			
Trichlorofluoromethane	10.2		ug/L	10.00		102	70-130			
Vinyl Chloride	11.5		ug/L	10.00		115	70-130			
Surrogate: 1,2-Dichloroethane-d4	*26.7*		ug/L	*25.00*		*107*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*26.5*		ug/L	*25.00*		*106*	*70-130*			
Surrogate: Dibromofluoromethane	*27.0*		ug/L	*25.00*		*108*	*70-130*			
Surrogate: Toluene-d8	*25.1*		ug/L	*25.00*		*100*	*70-130*			
LCS Dup										
1,1,1-Trichloroethane	10.5		ug/L	10.00		105	70-130	4	25	

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Quality Control Data

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624 Volatile Organic Compounds										
Batch CA31410 - 5030B										
1,1,2,2-Tetrachloroethane	10.1		ug/L	10.00		101	70-130	4	25	
1,1,2-Trichloroethane	10.5		ug/L	10.00		105	70-130	2	25	
1,1-Dichloroethane	10.6		ug/L	10.00		106	70-130	7	25	
1,1-Dichloroethene	11.4		ug/L	10.00		114	70-130	7	25	
1,2-Dichlorobenzene	10.5		ug/L	10.00		105	70-130	2	25	
1,2-Dichloroethane	10.7		ug/L	10.00		107	70-130	0.7	25	
1,2-Dichloropropane	10.1		ug/L	10.00		101	70-130	0.1	25	
1,3-Dichlorobenzene	11.0		ug/L	10.00		110	70-130	10	25	
1,4-Dichlorobenzene	10.2		ug/L	10.00		102	70-130	5	25	
2-Chloroethyl vinyl ether	51.2		ug/L	50.00		102	70-130	2	25	
Acrolein - Screen	13.1		ug/L	10.00		131	70-130	17	25	B+
Acrylonitrile - Screen	10.4		ug/L	10.00		104	70-130	4	20	
Benzene	11.2		ug/L	10.00		112	70-130	3	25	
Bromodichloromethane	11.0		ug/L	10.00		110	70-130	3	25	
Bromoform	8.6		ug/L	10.00		86	70-130	1	25	
Bromomethane	10.0		ug/L	10.00		100	70-130	0.7	25	
Carbon Tetrachloride	10.2		ug/L	10.00		102	70-130	1	25	
Chlorobenzene	10.6		ug/L	10.00		106	70-130	5	25	
Chloroethane	9.1		ug/L	10.00		91	70-130	4	25	
Chloroform	11.0		ug/L	10.00		110	70-130	0.5	25	
Chloromethane	9.3		ug/L	10.00		93	70-130	1	25	
cis-1,2-Dichloroethene	11.1		ug/L	10.00		111	70-130	2	25	
cis-1,3-Dichloropropene	11.6		ug/L	10.00		116	70-130	0	25	
Dibromochloromethane	9.2		ug/L	10.00		92	70-130	4	25	
Ethylbenzene	10.1		ug/L	10.00		101	70-130	3	25	
Methylene Chloride	11.1		ug/L	10.00		111	70-130	3	25	
Tetrachloroethene	9.0		ug/L	10.00		90	70-130	1	25	
Toluene	11.2		ug/L	10.00		112	70-130	2	25	
trans-1,2-Dichloroethene	11.3		ug/L	10.00		113	70-130	7	25	
trans-1,3-Dichloropropene	9.6		ug/L	10.00		96	70-130	0.3	25	
Trichloroethene	10.4		ug/L	10.00		104	70-130	5	25	
Trichlorofluoromethane	11.0		ug/L	10.00		110	70-130	8	25	
Vinyl Chloride	11.8		ug/L	10.00		118	70-130	2	25	
Surrogate: 1,2-Dichloroethane-d4	*26.9*		ug/L	*25.00*		*108*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*25.4*		ug/L	*25.00*		*101*	*70-130*			
Surrogate: Dibromofluoromethane	*26.7*		ug/L	*25.00*		*107*	*70-130*			
Surrogate: Toluene-d8	*25.7*		ug/L	*25.00*		*103*	*70-130*			
625 Semi-Volatile Organic Compounds										
Batch CA31415 - 3520C										
Blank										
1,2,4-Trichlorobenzene	ND	10.0	ug/L							
1,2-Dichlorobenzene	ND	10.0	ug/L							
1,2-Diphenylhydrazine as Azobenzene	ND	20.0	ug/L							
1,3-Dichlorobenzene	ND	10.0	ug/L							

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Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
625 Semi-Volatile Organic Compounds										
Batch CA31415 - 3520C										
1,4-Dichlorobenzene	ND	10.0	ug/L							
2,4,6-Trichlorophenol	ND	10.0	ug/L							
2,4-Dichlorophenol	ND	10.0	ug/L							
2,4-Dimethylphenol	ND	50.0	ug/L							
2,4-Dinitrophenol	ND	50.0	ug/L							
2,4-Dinitrotoluene	ND	10.0	ug/L							
2,6-Dinitrotoluene	ND	10.0	ug/L							
2-Chloronaphthalene	ND	10.0	ug/L							
2-Chlorophenol	ND	10.0	ug/L							
2-Nitrophenol	ND	10.0	ug/L							
3,3´-Dichlorobenzidine	ND	20.0	ug/L							
4,6-Dinitro-2-Methylphenol	ND	50.0	ug/L							
4-Bromophenyl-phenylether	ND	10.0	ug/L							
4-Chloro-3-Methylphenol	ND	10.0	ug/L							
4-Chloro-phenyl-phenyl ether	ND	10.0	ug/L							
4-Nitrophenol	ND	50.0	ug/L							
Acenaphthene	ND	10.0	ug/L							
Acenaphthylene	ND	10.0	ug/L							
Anthracene	ND	10.0	ug/L							
Benzidine	ND	50.0	ug/L							
Benzo(a)anthracene	ND	10.0	ug/L							
Benzo(a)pyrene	ND	10.0	ug/L							
Benzo(b)fluoranthene	ND	10.0	ug/L							
Benzo(g,h,i)perylene	ND	10.0	ug/L							
Benzo(k)fluoranthene	ND	10.0	ug/L							
bis(2-Chloroethoxy)methane	ND	10.0	ug/L							
bis(2-Chloroethyl)ether	ND	10.0	ug/L							
bis(2-chloroisopropyl)Ether	ND	10.0	ug/L							
bis(2-Ethylhexyl)phthalate	ND	6.0	ug/L							
Butylbenzylphthalate	ND	10.0	ug/L							
Chrysene	ND	10.0	ug/L							
Dibenzo(a,h)Anthracene	ND	10.0	ug/L							
Diethylphthalate	ND	10.0	ug/L							
Dimethylphthalate	ND	10.0	ug/L							
Di-n-butylphthalate	ND	10.0	ug/L							
Di-n-octylphthalate	ND	10.0	ug/L							
Fluoranthene	ND	10.0	ug/L							
Fluorene	ND	10.0	ug/L							
Hexachlorobenzene	ND	10.0	ug/L							
Hexachlorobutadiene	ND	10.0	ug/L							
Hexachlorocyclopentadiene	ND	25.0	ug/L							
Hexachloroethane	ND	5.0	ug/L							
Indeno(1,2,3-cd)Pyrene	ND	10.0	ug/L							
Isophorone	ND	10.0	ug/L							
Naphthalene	ND	10.0	ug/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
625 Semi-Volatile Organic Compounds										
Batch CA31415 - 3520C										
Nitrobenzene	ND	10.0	ug/L							
N-Nitrosodimethylamine	ND	10.0	ug/L							
N-Nitroso-Di-n-Propylamine	ND	10.0	ug/L							
N-nitrosodiphenylamine	ND	10.0	ug/L							
Pentachlorophenol	ND	50.0	ug/L							
Phenanthrene	ND	10.0	ug/L							
Phenol	ND	10.0	ug/L							
Pyrene	ND	10.0	ug/L							
Surrogate: 1,2-Dichlorobenzene-d4	*64.0*		ug/L	*100.0*		*64*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*135*		ug/L	*150.0*		*90*	*15-110*			
Surrogate: 2-Chlorophenol-d4	*108*		ug/L	*150.0*		*72*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*74.9*		ug/L	*100.0*		*75*	*30-130*			
Surrogate: 2-Fluorophenol	*92.8*		ug/L	*150.0*		*62*	*15-110*			
Surrogate: Nitrobenzene-d5	*74.8*		ug/L	*100.0*		*75*	*30-130*			
Surrogate: Phenol-d6	*120*		ug/L	*150.0*		*80*	*15-110*			
Surrogate: p-Terphenyl-d14	*103*		ug/L	*100.0*		*103*	*30-130*			
LCS										
1,2,4-Trichlorobenzene	65.7	10.0	ug/L	100.0		66	40-140			
1,2-Dichlorobenzene	56.2	10.0	ug/L	100.0		56	40-140			
1,2-Diphenylhydrazine as Azobenzene	91.3	20.0	ug/L	100.0		91	40-140			
1,3-Dichlorobenzene	51.9	10.0	ug/L	100.0		52	40-140			
1,4-Dichlorobenzene	54.0	10.0	ug/L	100.0		54	40-140			
2,4,6-Trichlorophenol	90.2	10.0	ug/L	100.0		90	30-130			
2,4-Dichlorophenol	83.6	10.0	ug/L	100.0		84	30-130			
2,4-Dimethylphenol	85.5	50.0	ug/L	100.0		86	30-130			
2,4-Dinitrophenol	131	50.0	ug/L	100.0		131	30-130			B+
2,4-Dinitrotoluene	98.3	10.0	ug/L	100.0		98	40-140			
2,6-Dinitrotoluene	94.5	10.0	ug/L	100.0		94	40-140			
2-Chloronaphthalene	72.8	10.0	ug/L	100.0		73	40-140			
2-Chlorophenol	67.9	10.0	ug/L	100.0		68	30-130			
2-Nitrophenol	81.0	10.0	ug/L	100.0		81	30-130			
3,3´-Dichlorobenzidine	83.3	20.0	ug/L	100.0		83	40-140			
4,6-Dinitro-2-Methylphenol	113	50.0	ug/L	100.0		113	30-130			
4-Bromophenyl-phenylether	87.5	10.0	ug/L	100.0		87	40-140			
4-Chloro-3-Methylphenol	96.4	10.0	ug/L	100.0		96	30-130			
4-Chloro-phenyl-phenyl ether	84.0	10.0	ug/L	100.0		84	40-140			
4-Nitrophenol	97.9	50.0	ug/L	100.0		98	30-130			
Acenaphthene	82.2	10.0	ug/L	100.0		82	40-140			
Acenaphthylene	88.2	10.0	ug/L	100.0		88	40-140			
Anthracene	90.6	10.0	ug/L	100.0		91	40-140			
Benzo(a)anthracene	92.9	10.0	ug/L	100.0		93	40-140			
Benzo(a)pyrene	88.3	10.0	ug/L	100.0		88	40-140			
Benzo(b)fluoranthene	91.6	10.0	ug/L	100.0		92	40-140			
Benzo(g,h,i)perylene	93.4	10.0	ug/L	100.0		93	40-140			
Benzo(k)fluoranthene	94.4	10.0	ug/L	100.0		94	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
625 Semi-Volatile Organic Compounds										
Batch CA31415 - 3520C										
bis(2-Chloroethoxy)methane	80.8	10.0	ug/L	100.0		81	40-140			
bis(2-Chloroethyl)ether	71.3	10.0	ug/L	100.0		71	40-140			
bis(2-chloroisopropyl)Ether	69.4	10.0	ug/L	100.0		69	40-140			
bis(2-Ethylhexyl)phthalate	99.6	6.0	ug/L	100.0		100	40-140			
Butylbenzylphthalate	99.1	10.0	ug/L	100.0		99	40-140			
Chrysene	91.0	10.0	ug/L	100.0		91	40-140			
Dibenzo(a,h)Anthracene	82.3	10.0	ug/L	100.0		82	40-140			
Diethylphthalate	92.2	10.0	ug/L	100.0		92	40-140			
Dimethylphthalate	87.8	10.0	ug/L	100.0		88	40-140			
Di-n-butylphthalate	98.0	10.0	ug/L	100.0		98	40-140			
Di-n-octylphthalate	103	10.0	ug/L	100.0		103	40-140			
Fluoranthene	96.1	10.0	ug/L	100.0		96	40-140			
Fluorene	88.0	10.0	ug/L	100.0		88	40-140			
Hexachlorobenzene	90.3	10.0	ug/L	100.0		90	40-140			
Hexachlorobutadiene	63.3	10.0	ug/L	100.0		63	40-140			
Hexachlorocyclopentadiene	64.6	25.0	ug/L	100.0		65	40-140			
Hexachloroethane	52.0	5.0	ug/L	100.0		52	40-140			
Indeno(1,2,3-cd)Pyrene	94.8	10.0	ug/L	100.0		95	40-140			
Isophorone	88.2	10.0	ug/L	100.0		88	40-140			
Naphthalene	71.6	10.0	ug/L	100.0		72	40-140			
Nitrobenzene	80.1	10.0	ug/L	100.0		80	40-140			
N-Nitrosodimethylamine	70.7	10.0	ug/L	100.0		71	40-140			
N-Nitroso-Di-n-Propylamine	76.0	10.0	ug/L	100.0		76	40-140			
N-nitrosodiphenylamine	90.2	10.0	ug/L	100.0		90	40-140			
Pentachlorophenol	93.6	50.0	ug/L	100.0		94	30-130			
Phenanthrene	89.0	10.0	ug/L	100.0		89	40-140			
Phenol	72.9	10.0	ug/L	100.0		73	30-130			
Pyrene	95.1	10.0	ug/L	100.0		95	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	*70.0*		ug/L	*100.0*		*70*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*156*		ug/L	*150.0*		*104*	*15-110*			
Surrogate: 2-Chlorophenol-d4	*112*		ug/L	*150.0*		*74*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*84.3*		ug/L	*100.0*		*84*	*30-130*			
Surrogate: 2-Fluorophenol	*94.7*		ug/L	*150.0*		*63*	*15-110*			
Surrogate: Nitrobenzene-d5	*81.6*		ug/L	*100.0*		*82*	*30-130*			
Surrogate: Phenol-d6	*123*		ug/L	*150.0*		*82*	*15-110*			
Surrogate: p-Terphenyl-d14	*103*		ug/L	*100.0*		*103*	*30-130*			
LCS Dup										
1,2,4-Trichlorobenzene	75.2	10.0	ug/L	100.0		75	40-140	13	200	
1,2-Dichlorobenzene	67.5	10.0	ug/L	100.0		68	40-140	18	200	
1,2-Diphenylhydrazine as Azobenzene	88.3	20.0	ug/L	100.0		88	40-140	3	200	
1,3-Dichlorobenzene	62.7	10.0	ug/L	100.0		63	40-140	19	200	
1,4-Dichlorobenzene	65.4	10.0	ug/L	100.0		65	40-140	19	200	
2,4,6-Trichlorophenol	92.7	10.0	ug/L	100.0		93	30-130	3	200	
2,4-Dichlorophenol	89.4	10.0	ug/L	100.0		89	30-130	7	200	
2,4-Dimethylphenol	90.1	50.0	ug/L	100.0		90	30-130	5	200	

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Client Name: GZA GeoEnvironmental, Inc.
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
625 Semi-Volatile Organic Compounds										
Batch CA31415 - 3520C										
2,4-Dinitrophenol	130	50.0	ug/L	100.0		130	30-130	0.3	200	
2,4-Dinitrotoluene	101	10.0	ug/L	100.0		101	40-140	3	200	
2,6-Dinitrotoluene	97.3	10.0	ug/L	100.0		97	40-140	3	200	
2-Chloronaphthalene	76.4	10.0	ug/L	100.0		76	40-140	5	200	
2-Chlorophenol	79.9	10.0	ug/L	100.0		80	30-130	16	200	
2-Nitrophenol	89.2	10.0	ug/L	100.0		89	30-130	10	200	
3,3´-Dichlorobenzidine	83.3	20.0	ug/L	100.0		83	40-140	0.1	200	
4,6-Dinitro-2-Methylphenol	111	50.0	ug/L	100.0		111	30-130	2	200	
4-Bromophenyl-phenylether	85.4	10.0	ug/L	100.0		85	40-140	2	200	
4-Chloro-3-Methylphenol	95.9	10.0	ug/L	100.0		96	30-130	0.5	200	
4-Chloro-phenyl-phenyl ether	84.4	10.0	ug/L	100.0		84	40-140	0.5	200	
4-Nitrophenol	98.8	50.0	ug/L	100.0		99	30-130	1	200	
Acenaphthene	85.1	10.0	ug/L	100.0		85	40-140	3	200	
Acenaphthylene	91.1	10.0	ug/L	100.0		91	40-140	3	200	
Anthracene	88.5	10.0	ug/L	100.0		88	40-140	2	200	
Benzo(a)anthracene	92.8	10.0	ug/L	100.0		93	40-140	0.1	200	
Benzo(a)pyrene	88.6	10.0	ug/L	100.0		89	40-140	0.3	200	
Benzo(b)fluoranthene	93.0	10.0	ug/L	100.0		93	40-140	1	200	
Benzo(g,h,i)perylene	94.2	10.0	ug/L	100.0		94	40-140	0.7	200	
Benzo(k)fluoranthene	94.9	10.0	ug/L	100.0		95	40-140	0.5	200	
bis(2-Chloroethoxy)methane	88.1	10.0	ug/L	100.0		88	40-140	9	200	
bis(2-Chloroethyl)ether	81.2	10.0	ug/L	100.0		81	40-140	13	200	
bis(2-chloroisopropyl)Ether	80.4	10.0	ug/L	100.0		80	40-140	15	200	
bis(2-Ethylhexyl)phthalate	99.5	6.0	ug/L	100.0		100	40-140	0.03	200	
Butylbenzylphthalate	98.5	10.0	ug/L	100.0		99	40-140	0.6	200	
Chrysene	91.6	10.0	ug/L	100.0		92	40-140	0.7	200	
Dibenzo(a,h)Anthracene	85.2	10.0	ug/L	100.0		85	40-140	4	200	
Diethylphthalate	93.1	10.0	ug/L	100.0		93	40-140	1	200	
Dimethylphthalate	88.8	10.0	ug/L	100.0		89	40-140	1	200	
Di-n-butylphthalate	94.8	10.0	ug/L	100.0		95	40-140	3	200	
Di-n-octylphthalate	104	10.0	ug/L	100.0		104	40-140	0.9	200	
Fluoranthene	93.6	10.0	ug/L	100.0		94	40-140	3	200	
Fluorene	89.4	10.0	ug/L	100.0		89	40-140	2	200	
Hexachlorobenzene	86.1	10.0	ug/L	100.0		86	40-140	5	200	
Hexachlorobutadiene	73.2	10.0	ug/L	100.0		73	40-140	14	200	
Hexachlorocyclopentadiene	74.1	25.0	ug/L	100.0		74	40-140	14	200	
Hexachloroethane	64.7	5.0	ug/L	100.0		65	40-140	22	200	
Indeno(1,2,3-cd)Pyrene	95.1	10.0	ug/L	100.0		95	40-140	0.3	200	
Isophorone	93.6	10.0	ug/L	100.0		94	40-140	6	200	
Naphthalene	80.2	10.0	ug/L	100.0		80	40-140	11	200	
Nitrobenzene	87.8	10.0	ug/L	100.0		88	40-140	9	200	
N-Nitrosodimethylamine	78.2	10.0	ug/L	100.0		78	40-140	10	200	
N-Nitroso-Di-n-Propylamine	84.7	10.0	ug/L	100.0		85	40-140	11	200	
N-nitrosodiphenylamine	85.9	10.0	ug/L	100.0		86	40-140	5	200	
Pentachlorophenol	91.2	50.0	ug/L	100.0		91	30-130	3	200	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
625 Semi-Volatile Organic Compounds										
Batch CA31415 - 3520C										
Phenanthrene	86.9	10.0	ug/L	100.0		87	40-140	2	200	
Phenol	91.2	10.0	ug/L	100.0		91	30-130	22	200	
Pyrene	95.0	10.0	ug/L	100.0		95	40-140	0.2	200	
Surrogate: 1,2-Dichlorobenzene-d4	*79.7*		ug/L	*100.0*		*80*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*149*		ug/L	*150.0*		*99*	*15-110*			
Surrogate: 2-Chlorophenol-d4	*128*		ug/L	*150.0*		*86*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*88.5*		ug/L	*100.0*		*88*	*30-130*			
Surrogate: 2-Fluorophenol	*115*		ug/L	*150.0*		*76*	*15-110*			
Surrogate: Nitrobenzene-d5	*89.3*		ug/L	*100.0*		*89*	*30-130*			
Surrogate: Phenol-d6	*137*		ug/L	*150.0*		*91*	*15-110*			
Surrogate: p-Terphenyl-d14	*101*		ug/L	*100.0*		*101*	*30-130*			
MADEP-EPH Extractable Petroleum Hydrocarbons										
Batch CA31505 - 3510C										
Blank										
C19-C36 Aliphatics1	ND	100	ug/L							
C9-C18 Aliphatics1	ND	150	ug/L							
Decane (C10)	ND	5	ug/L							
Docosane (C22)	ND	5	ug/L							
Dodecane (C12)	ND	5	ug/L							
Eicosane (C20)	ND	5	ug/L							
Hexacosane (C26)	ND	5	ug/L							
Hexadecane (C16)	ND	5	ug/L							
Hexatriacontane (C36)	ND	5	ug/L							
Nonadecane (C19)	ND	5	ug/L							
Nonane (C9)	ND	5	ug/L							
Octacosane (C28)	ND	5	ug/L							
Octadecane (C18)	ND	5	ug/L							
Tetracosane (C24)	ND	5	ug/L							
Tetradecane (C14)	ND	5	ug/L							
Triacontane (C30)	ND	5	ug/L							
Surrogate: 1-Chlorooctadecane	*41.1*		ug/L	*50.00*		*82*	*40-140*			
Blank										
2-Methylnaphthalene	ND	5.0	ug/L							
Acenaphthene	ND	5.0	ug/L							
Acenaphthylene	ND	5.0	ug/L							
Anthracene	ND	5.0	ug/L							
Benzo(a)anthracene	ND	5.0	ug/L							
Benzo(a)pyrene	ND	10.0	ug/L							
Benzo(b)fluoranthene	ND	5.0	ug/L							
Benzo(g,h,i)perylene	ND	10.0	ug/L							
Benzo(k)fluoranthene	ND	10.0	ug/L							
C11-C22 Unadjusted Aromatics1	ND	100	ug/L							

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Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
MADEP-EPH Extractable Petroleum Hydrocarbons										
Batch CA31505 - 3510C										
Chrysene	ND	10.0	ug/L							
Dibenzo(a,h)Anthracene	ND	5.0	ug/L							
Fluoranthene	ND	10.0	ug/L							
Fluorene	ND	5.0	ug/L							
Indeno(1,2,3-cd)Pyrene	ND	5.0	ug/L							
Naphthalene	ND	10.0	ug/L							
Phenanthrene	ND	5.0	ug/L							
Pyrene	ND	5.0	ug/L							
Surrogate: 2-Bromonaphthalene	*49.2*		ug/L	*50.00*		*98*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*48.0*		ug/L	*50.00*		*96*	*40-140*			
Surrogate: O-Terphenyl	*36.8*		ug/L	*50.00*		*74*	*40-140*			
LCS										
C19-C36 Aliphatics1	345	100	ug/L	400.0		86	40-140			
C9-C18 Aliphatics1	232	150	ug/L	300.0		77	40-140			
Decane (C10)	24	5	ug/L	50.00		49	40-140			
Docosane (C22)	45	5	ug/L	50.00		89	40-140			
Dodecane (C12)	30	5	ug/L	50.00		60	40-140			
Eicosane (C20)	44	5	ug/L	50.00		88	40-140			
Hexacosane (C26)	45	5	ug/L	50.00		91	40-140			
Hexadecane (C16)	39	5	ug/L	50.00		77	40-140			
Hexatriacontane (C36)	38	5	ug/L	50.00		76	40-140			
Nonadecane (C19)	43	5	ug/L	50.00		86	40-140			
Nonane (C9)	18	5	ug/L	50.00		37	30-140			
Octacosane (C28)	45	5	ug/L	50.00		91	40-140			
Octadecane (C18)	42	5	ug/L	50.00		85	40-140			
Tetracosane (C24)	45	5	ug/L	50.00		91	40-140			
Tetradecane (C14)	35	5	ug/L	50.00		69	40-140			
Triacontane (C30)	45	5	ug/L	50.00		90	40-140			
Surrogate: 1-Chlorooctadecane	*40.4*		ug/L	*50.00*		*81*	*40-140*			
LCS										
2-Methylnaphthalene	32.5	5.0	ug/L	50.00		65	40-140			
Acenaphthene	33.5	5.0	ug/L	50.00		67	40-140			
Acenaphthylene	34.1	5.0	ug/L	50.00		68	40-140			
Anthracene	40.1	5.0	ug/L	50.00		80	40-140			
Benzo(a)anthracene	42.5	5.0	ug/L	50.00		85	40-140			
Benzo(a)pyrene	45.7	10.0	ug/L	50.00		91	40-140			
Benzo(b)fluoranthene	42.5	5.0	ug/L	50.00		85	40-140			
Benzo(g,h,i)perylene	35.2	10.0	ug/L	50.00		70	40-140			
Benzo(k)fluoranthene	42.0	10.0	ug/L	50.00		84	40-140			
C11-C22 Unadjusted Aromatics1	691	100	ug/L	850.0		81	40-140			
Chrysene	42.7	10.0	ug/L	50.00		85	40-140			
Dibenzo(a,h)Anthracene	35.8	5.0	ug/L	50.00		72	40-140			
Fluoranthene	41.9	10.0	ug/L	50.00		84	40-140			
Fluorene	37.0	5.0	ug/L	50.00		74	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
MADEP-EPH Extractable Petroleum Hydrocarbons										
Batch CA31505 - 3510C										
Indeno(1,2,3-cd)Pyrene	35.2	5.0	ug/L	50.00		70	40-140			
Naphthalene	30.4	10.0	ug/L	50.00		61	40-140			
Phenanthrene	38.8	5.0	ug/L	50.00		78	40-140			
Pyrene	43.4	5.0	ug/L	50.00		87	40-140			
Surrogate: 2-Bromonaphthalene	*45.8*		ug/L	*50.00*		*92*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*44.3*		ug/L	*50.00*		*89*	*40-140*			
Surrogate: O-Terphenyl	*39.5*		ug/L	*50.00*		*79*	*40-140*			
LCS										
2-Methylnaphthalene Breakthrough	0.0		%				0-5			
Naphthalene Breakthrough	0.0		%				0-5			
LCS Dup										
C19-C36 Aliphatics1	340	100	ug/L	400.0		85	40-140	2	25	
C9-C18 Aliphatics1	226	150	ug/L	300.0		75	40-140	3	25	
Decane (C10)	22	5	ug/L	50.00		45	40-140	9	25	
Docosane (C22)	45	5	ug/L	50.00		89	40-140	0.2	25	
Dodecane (C12)	28	5	ug/L	50.00		56	40-140	6	25	
Eicosane (C20)	44	5	ug/L	50.00		88	40-140	0.3	25	
Hexacosane (C26)	45	5	ug/L	50.00		91	40-140	0.2	25	
Hexadecane (C16)	39	5	ug/L	50.00		79	40-140	1	25	
Hexatriacontane (C36)	39	5	ug/L	50.00		79	40-140	4	25	
Nonadecane (C19)	43	5	ug/L	50.00		87	40-140	0.4	25	
Nonane (C9)	16	5	ug/L	50.00		33	30-140	11	25	
Octacosane (C28)	45	5	ug/L	50.00		91	40-140	0.2	25	
Octadecane (C18)	43	5	ug/L	50.00		85	40-140	0.7	25	
Tetracosane (C24)	45	5	ug/L	50.00		91	40-140	0.2	25	
Tetradecane (C14)	35	5	ug/L	50.00		69	40-140	0.2	25	
Triacontane (C30)	45	5	ug/L	50.00		90	40-140	0.3	25	
Surrogate: 1-Chlorooctadecane	*40.2*		ug/L	*50.00*		*80*	*40-140*			
LCS Dup										
2-Methylnaphthalene	31.2	5.0	ug/L	50.00		62	40-140	4	25	
Acenaphthene	33.0	5.0	ug/L	50.00		66	40-140	2	25	
Acenaphthylene	33.1	5.0	ug/L	50.00		66	40-140	3	25	
Anthracene	37.5	5.0	ug/L	50.00		75	40-140	7	25	
Benzo(a)anthracene	39.4	5.0	ug/L	50.00		79	40-140	8	25	
Benzo(a)pyrene	42.4	10.0	ug/L	50.00		85	40-140	7	25	
Benzo(b)fluoranthene	40.0	5.0	ug/L	50.00		80	40-140	6	25	
Benzo(g,h,i)perylene	32.6	10.0	ug/L	50.00		65	40-140	8	25	
Benzo(k)fluoranthene	39.4	10.0	ug/L	50.00		79	40-140	6	25	
C11-C22 Unadjusted Aromatics1	658	100	ug/L	850.0		77	40-140	5	25	
Chrysene	40.4	10.0	ug/L	50.00		81	40-140	5	25	
Dibenzo(a,h)Anthracene	33.2	5.0	ug/L	50.00		66	40-140	7	25	
Fluoranthene	39.8	10.0	ug/L	50.00		80	40-140	5	25	
Fluorene	35.2	5.0	ug/L	50.00		70	40-140	5	25	
Indeno(1,2,3-cd)Pyrene	32.6	5.0	ug/L	50.00		65	40-140	8	25	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
MADEP-EPH Extractable Petroleum Hydrocarbons										
Batch CA31505 - 3510C										
Naphthalene	28.3	10.0	ug/L	50.00		57	40-140	7	25	
Phenanthrene	38.2	5.0	ug/L	50.00		76	40-140	2	25	
Pyrene	40.5	5.0	ug/L	50.00		81	40-140	7	25	
Surrogate: 2-Bromonaphthalene	*51.5*		ug/L	*50.00*		*103*	*40-140*			
Surrogate: 2-Fluorobiphenyl	*50.2*		ug/L	*50.00*		*100*	*40-140*			
Surrogate: O-Terphenyl	*37.5*		ug/L	*50.00*		*75*	*40-140*			
LCS Dup										
2-Methylnaphthalene Breakthrough	0.0		%				0-5		200	
Naphthalene Breakthrough	0.0		%				0-5		200	
MADEP-VPH Volatile Petroleum Hydrocarbon										
Batch CA31401 - 5030B										
Blank										
1,2,4-Trimethylbenzene	ND	5.0	ug/L							
2,2,4-Trimethylpentane	ND	5.0	ug/L							
2-Methylpentane	ND	5.0	ug/L							
Benzene	ND	1.5	ug/L							
C5-C8 Unadjusted Aliphatics	ND	150	ug/L							
C9-C10 Aromatics	ND	100	ug/L							
C9-C12 Unadjusted Aliphatics	ND	150	ug/L							
Ethylbenzene	ND	5.0	ug/L							
Methyl tert-Butyl Ether	ND	1.5	ug/L							
Naphthalene	ND	5.0	ug/L							
n-Butylcyclohexane	6.9	5.0	ug/L							
n-Decane	7.3	5.0	ug/L							
Nonane (C9)	11.3	5.0	ug/L							
Pentane	ND	5.0	ug/L							
Toluene	ND	5.0	ug/L							
Xylene O	ND	5.0	ug/L							
Xylene P,M	ND	10.0	ug/L							
Surrogate: 2,5-Dibromotoluene - FID	*41.8*		ug/L	*50.00*		*84*	*70-130*			
Surrogate: 2,5-Dibromotoluene - PID	*40.2*		ug/L	*50.00*		*80*	*70-130*			
LCS										
1,2,4-Trimethylbenzene	90.5		ug/L	100.0		91	70-130			
2,2,4-Trimethylpentane	135		ug/L	150.0		90	70-130			
2-Methylpentane	145		ug/L	150.0		97	70-130			
Benzene	43.9		ug/L	50.00		88	70-130			
C5-C8 Unadjusted Aliphatics	372		ug/L	400.0		93	70-130			
C9-C10 Aromatics	95.7		ug/L	100.0		96	70-130			
C9-C12 Unadjusted Aliphatics	274		ug/L	300.0		91	70-130			
Ethylbenzene	44.0		ug/L	50.00		88	70-130			
Methyl tert-Butyl Ether	142		ug/L	150.0		95	70-130			
Naphthalene	90.1		ug/L	100.0		90	70-130			
n-Butylcyclohexane	84.9		ug/L	100.0		85	70-130			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
MADEP-VPH Volatile Petroleum Hydrocarbon										
Batch CA31401 - 5030B										
n-Decane	91.2		ug/L	100.0		91	70-130			
Nonane (C9)	88.2		ug/L	100.0		88	30-130			
Pentane	97.6		ug/L	100.0		98	70-130			
Toluene	133		ug/L	150.0		89	70-130			
Xylene O	89.2		ug/L	100.0		89	70-130			
Xylene P,M	178		ug/L	200.0		89	70-130			
Surrogate: 2,5-Dibromotoluene - FID	*39.6*		ug/L	*50.00*		*79*	*70-130*			
Surrogate: 2,5-Dibromotoluene - PID	*39.0*		ug/L	*50.00*		*78*	*70-130*			
LCS Dup										
1,2,4-Trimethylbenzene	91.6		ug/L	100.0		92	70-130	1	25	
2,2,4-Trimethylpentane	172		ug/L	150.0		114	70-130	24	25	
2-Methylpentane	147		ug/L	150.0		98	70-130	1	25	
Benzene	43.8		ug/L	50.00		88	70-130	0.2	25	
C5-C8 Unadjusted Aliphatics	395		ug/L	400.0		99	70-130	6	25	
C9-C10 Aromatics	97.0		ug/L	100.0		97	70-130	1	25	
C9-C12 Unadjusted Aliphatics	279		ug/L	300.0		93	70-130	2	25	
Ethylbenzene	43.8		ug/L	50.00		88	70-130	0.4	25	
Methyl tert-Butyl Ether	141		ug/L	150.0		94	70-130	0.9	25	
Naphthalene	95.3		ug/L	100.0		95	70-130	6	25	
n-Butylcyclohexane	86.5		ug/L	100.0		86	70-130	2	25	
n-Decane	90.8		ug/L	100.0		91	70-130	0.4	25	
Nonane (C9)	94.1		ug/L	100.0		94	30-130	6	25	
Pentane	96.8		ug/L	100.0		97	70-130	0.9	25	
Toluene	133		ug/L	150.0		89	70-130	0.02	25	
Xylene O	89.5		ug/L	100.0		90	70-130	0.3	25	
Xylene P,M	177		ug/L	200.0		89	70-130	0.1	25	
Surrogate: 2,5-Dibromotoluene - FID	*43.3*		ug/L	*50.00*		*87*	*70-130*			
Surrogate: 2,5-Dibromotoluene - PID	*41.5*		ug/L	*50.00*		*83*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston ESS Laboratory Work Order: 1301172

Notes and Definitions

Z16	Aqueous pH measured in water at 20.1 ºC.
Z-06	pH <= 2
U	Analyte included in the analysis, but not detected
Q	Calibration required quadratic regression (Q).
ICV	Initial Calibration Verification recovery is outside of control limit (ICV).
HT	The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.
D+	Relative percent difference for duplicate is outside of criteria (D+).
C+	Continuing Calibration recovery is above upper control limit (C+).
B+	Blank Spike recovery is above upper control limit (B+).
ND	Analyte NOT DETECTED at or above the MRL (LOQ), LOD for DoD Reports, MDL for J-Flagged Analytes
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
MDL	Method Detection Limit
MRL	Method Reporting Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
DL	Detection Limit
I/V	Initial Volume
F/V	Final Volume
§	Subcontracted analysis; see attached report
1	Range result excludes concentrations of surrogates and/or internal standards eluting in that range.
2	Range result excludes concentrations of target analytes eluting in that range.
3	Range result excludes the concentration of the C9-C10 aromatic range.
Avg	Results reported as a mathematical average.
NR	No Recovery
[CALC]	Calculated Analyte
SUB	Subcontracted analysis; see attached report

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: Harrison Boulevard Boston

ESS Laboratory Work Order: 1301172

ESS LABORATORY CERTIFICATIONS AND ACCREDITATIONS

ENVIRONMENTAL

Department of Defense (DoD) Environmental Laboratory Accreditation Program (ELAP)
A2LA Accredited: Testing Cert# 2864.01
http://www.a2la.org/scopepdf/2864-01.pdf

Rhode Island Potable and Non Potable Water: LAI00179
http://www.health.ri.gov/labs/waterlabs-instate.php

Connecticut Potable and Non Potable Water, Solid and Hazardous Waste: PH-0750
http://www.ct.gov/dph/lib/dph/environmental_health/environmental_laboratories/pdf/OutofStateCommercialLaboratories.pdf

Maine Potable and Non Potable Water, and Solid and Hazardous Waste: RI0002
http://www.maine.gov/dep/blwq/topic/vessel/lab_list.pdf

Massachusetts Potable and Non Potable Water: M-RI002
http://public.dep.state.ma.us/labcert/labcert.aspx

New Hampshire (NELAP accredited) Potable and Non PotableWater, Solid and Hazardous Waste: 2424
http://www4.egov.nh.gov/des/nhelap/namesearch.asp

New York (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: 11313
http://www.wadsworth.org/labcert/elap/comm.html

United States Department of Agriculture Soil Permit: S-54210

Maryland Potable Water: 301
http://www.mde.state.md.us/assets/document/WSP_labs-2009apr20.pdf

CHEMISTRY

A2LA Accredited: Testing Cert # 2864.01
Lead in Paint, Phthalates, Lead in Children's Metals Products (Including Jewelry)
http://www.A2LA.org/dirsearchnew/newsearch.cfm

CPSC ID# 1141
Lead Paint, Lead in Children's Metals Jewelry
http://www.cpsc.gov/cgi-bin/labapplist.aspx

Sample and Cooler Receipt Checklist

Client: GZA GeoEnvironmental, Inc.
Client Project ID: _____
Shipped/Delivered Via: ESS Courier

ESS Project ID: 13010172
Date Project Due: 1/18/13
Days For Project: 5 Day

Items to be checked upon receipt:

1. Air Bill Manifest Present?	* No	10. Are the samples properly preserved?	Yes
Air No.:		11. Proper sample containers used?	Yes
2. Were Custody Seals Present?	No	12. Any air bubbles in the VOA vials?	No
3. Were Custody Seals Intact?	N/A	13. Holding times exceeded?	No
4. Is Radiation count < 100 CPM?	Yes	14. Sufficient sample volumes?	Yes
5. Is a cooler present?	Yes	15. Any Subcontracting needed?	No
Cooler Temp: **3.2**		16. Are ESS labels on correct containers?	Yes No
Iced With: **Ice**		17. Were samples received intact?	Yes No
6. Was COC included with samples?	Yes	ESS Sample IDs: _____	
7. Was COC signed and dated by client?	Yes	Sub Lab: _____	
8. Does the COC match the sample	Yes	Analysis: _____	
9. Is COC complete and correct?	Yes	TAT: _____	

18. Was there need to call project manager to discuss status? If yes, please explain.

_____

_____

_____

Who was called?:_____ By whom? _____

Sample Number	Properly Preserved	Container Type	# of Containers	Preservative
1	Yes	1 L Glass	4	NP
1	Yes	250 ml Plastic	1	NP
1	Yes	40 ml - VOA	3	HCL
1	Yes	500 ml Plastic	2	HNO3
2	Yes	1 L Glass	2	HCL
2	Yes	40 ml - VOA	3	HCL
3	Yes	1 L Glass	2	HCL
3	Yes	40 ml - VOA	3	HCL

Completed By: _____ Date/Time: 1/11/13

Reviewed By: _____ Date/Time: 1/11/13