UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 1

5 Post Office Square, Suite 100

BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

MAY 15 2015

John Moniz
Supervisor
Eversource Electric
396 Gifford Street
Falmouth, MA 02540

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. New Eversource Substation construction site located at 40 Electric Avenue, Boston, MA 02135, Suffolk County; Authorization # MAG910682

Dear Mr. Moniz:

Based on the review of a Notice of Intent (NOI) submitted by David E. Leone from GZA GeoEnvironmental, Inc., on behalf of Eversource Electric for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Operator to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

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

Please note the enclosed checklist includes parameters which your consultant marked "Believed Present".

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on selected dilution ranges and technology-based ceiling limitations. For each parameter the dilution factor 7.41 for this site is within a dilution range greater than five to ten (>5 -10), established in the RGP. (See the RGP Appendix IV for Massachusetts facilities). Therefore, the limits for zinc of 333 ug/L and iron of 5,000 ug/L, are required to achieve permit compliance at your site.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on December 1, 2015. 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.

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.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

Thelma Murphy

Thelma Murphy, Chief
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
Stephen Shea, Boston WSC
David E. Leone, GZA GeoEnvironmental, Inc.

2010 Remediation General Permit
Summary of Monitoring Parameters[11]

NPDES Authorization Number:	**MAG910682**
Authorization Issued:	May, 2015
Facility/Site Name:	New Eversource Substation Construction Site
Facility/Site Address:	40 Electric Avenue, Brighton, MA 02135
	Email address of owner: michael.zylich @eversource.com
Legal Name of Operator:	Eversource Electric
Operator contact name, title, and Address:	John Muniz, Supervisor Station 315 located at 40 Electric Avenue, Brighton, MA 02135
	Email: Not provided
Estimated date of The Project Completion:	December 1, 2015
Category and Sub-Category:	Category III. Contaminated Construction Dewatering. Subcategory A. General Urban Fill Sites
RGP Termination Date:	September 2015
Receiving Water:	Charles River

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/ 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)	0.05 ug/l/ Me#8260C/ ML 10ug/L

	(1,2- Dibromoethane)	
	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
	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		
	39. Antimony	5.6/ML 10	ML 10	
	40. Arsenic **	10/ML20	ML	20
	41. Cadmium **	0.2/ML10		10
	42. Chromium III (trivalent) **	48.8/ML15		15
	43. Chromium VI (hexavalent) **	11.4	ML	10
	44. Copper **	5.2	ML	15
	45. Lead **	1.3	ML	20
	46. Mercury **	0.9	ML	0.2
	47. Nickel **	29	ML	20
	48. Selenium **	5	ML	20

	49. Silver	1.2		ML	10
√	50. Zinc **	333		ML	15
√	51. Iron	5,000		ML	20

	Other Parameters	**Limit**
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
√	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[13]
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab[13]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[13]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[14]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[14]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[14]
	64. Maximum Change in Temperature in MA –Any Class SB water body - October to June	4°F; 1/Month/Grab[14]

Footnotes:

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

May 4, 2015
File No. 01.0170789.30

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

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

Re: **Submittal of Notice of Intent (NOI)**
Construction Dewatering
40 Electric Avenue
Brighton, Massachusetts

Dear Mr. Alvarez:

On behalf of Eversource Electric (Eversource), GZA GeoEnvironmental, Inc. (GZA) has prepared this Notice of Intent (NOI) for application of a National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for proposed construction dewatering activities at 40 Electric Avenue, Boston, Massachusetts (the "Site"), which is shown on the Locus Plan on Figure 1 and a Site Plan is attached as Figure 2.

As there is a need to treat and discharge water generated from the construction dewatering, the enclosed NOI form provides required information on the general site conditions, proposed treatment system, discharge location and receiving water, and analytical results for the proposed dewatering, treatment and discharge activities, which are shown in Figure 5 (Process Flow Diagram). The excavation, dewatering, and discharge of treated water are scheduled to begin June 1, 2015 and conclude December 1, 2015. Discharge of treated groundwater to a City of Boston storm drain is expected to be approximately 6 months in duration.

SITE DESCRIPTION

The Site is located at 40 Electric Avenue in a primarily residential and commercial area of the Brighton section of Boston, Massachusetts. The Site is abutted to the north by an elevated railroad easement beyond which is the Massachusetts Turnpike (Route 90); to the east by an automotive repair business; to the south by Electric Avenue, beyond which are a vacant lot and several commercial business, and to the west by Electric Avenue and a vegetated area, beyond which are the aforementioned railroad easement and Massachusetts Turnpike.

The Site is an approximately 49,310-square foot parcel. Historically the Site was listed as an MCP disposal site under the Release Tracking Number (RTN 3-19793) due to the presence of light non-aqueous phase liquid (LNAPL) in the subsurface. In 2013, at the conclusion of a remedial program of soil excavation/treatment and LNAPL recovery, a Partial Class A-2 Response Action Outcome (RAO) Statement (Permanent Solution) was submitted by GZA for the entirety of the Site except for the far eastern portion of the Site where residual LNAPL remains. A Class C-1 RAO Statement (Temporary Solution) was submitted for this area in June 2014. All dewatering activities will be conducted on the portion of the Site to which the Class A-2 RAO applies.

PROPOSED ACTIVITIES

The Site is slated for redevelopment into an Eversource electric substation. In order to construct the foundation of the new substation, soil will be excavated to approximately 19 feet below ground surface. Groundwater gauging activities conducted between 2012 and 2014 in addition to previous

construction on the Site have indicated that the depth to groundwater at the partial Site ranges from approximately 10 to 12 feet below ground surface. It is expected that the excavated area will need to be dewatered at a maximum dewatering rate of 1,000 gallons per minute. Groundwater will be treated onsite before being discharged to a storm drain owned by the City of Boston which discharges to the Charles River.

RECEIVING WATERS

There are no surface water bodies or waterways on or immediately adjacent to the Site. There is a network of storm drains owned by the Boston Water and Sewer Commission on site that discharge via subsurface pipes north to the Charles River, which lies approximately 795 feet (or 1,125 feet through City storm drain system) north of the Site refer to Figure 3.

Groundwater encountered during construction excavation will be treated through a temporary on-Site treatment system and discharged to a catch basin which outfalls into City of Boston Storm Drain #SDO032 (Attachment 7). The Charles River is a perennial river that flows through 23 cities and towns and empties into the Boston Harbor. This section of the Charles River is classified as a stressed water body and is listed in the 303d Impaired Waterbodies document.

A Dewatering Discharge Permit will be obtained from the Boston Water and Sewer Commission prior to the commencement of discharge to a storm drain owned by the City of Boston.

TREATMENT SYSTEM

During the excavation groundwater will be encountered and pumped to an on-site treatment system consisting of three 21,000 gallon fractionation tanks, four 1,000 gpm bag filter units and four 10,000 pound liquid-phase granular activated carbon units (Figure 5). The maximum flow is estimated to be 1,000 gallons per minute (gpm). Groundwater will be pumped from the construction excavation area for approximately 6 months, June 2015 through December 2015. A Notice of Termination will be sent to EPA when the excavation is complete and treated water is no longer being discharged.

NOTICE OF INTENT

Preparation of this NOI has included a review of the literature pertaining to the 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 the “Federally Listed Endangered and Threatened Species in Massachusetts” (January 2015) found that there are three listed species in Suffolk County. Two species are are coastal and the third, the Northern Long-Eared Bat, prefers mines and caves in winter and forested habitats in the summer. Therefore, permit eligibility meets “Criterion A.”
- Review of the Massachusetts Geographic Information Systems (MassGIS) DEP Priority Resource Map of Boston shows that there are no ACECs and no habitats of Species of Special Concern or Threatened or Endangered Species within 500 feet of the subject site. As shown on the map generated by the MassGIS online viewer, which can be found in Attachment 6, no ACECs or Estimated Habitats of Rare Wildlife areas are located within half a mile downstream of the discharge location.

- An electronic review of the Massachusetts Cultural Resource Information System database, made available through Massachusetts Historical Commission, found no historical areas, buildings, objects, burial grounds or structures on or in the proximity of the Site. Therefore, permit eligibility meets "Criterion 2."
- Laboratory analytical results shown in Part 3 of Attachment 1 are included as Attachment 8. Groundwater was tested on April 14, 2015. There were no detected analytes which exceeded the effluent limits listed in Appendix III.

Please do not hesitate to contact the undersigned at (781) 278-3700 if you have any questions or require further information.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

David E. Leone
Senior Project Manager

Michele Simoneaux
Consultant/Reviewer

Gregg McBride, LSP
Principal

Attachments:

Notice of Intent Form
Figure 1 – Site Locus Map
Figure 2 – Site Plan
Figure 3 – Storm Drain Discharge to Charles River
Figure 5 – Process Flow Diagram
Priority Resource Map
Federally Endangered Species in Massachusetts
Massachusetts Cultural Resources Information System Report
Laboratory Analytical Results
MassDEP Transmittal Form (# X265917)

cc: Michael Zylich, Eversource Electric
David Massa, Lawrence Lynch Corp.
MassDEP, Division of Watershed Management
MassDEP, Boston

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**: Station 315		**Facility/site** mailing address:		
Location of **facility/site**: longitude: 71°09' 58" latitude: 42°21'71"	Facility SIC code(s): 0	Street: 40 Electric Ave		
b) Name of **facility/site owner**: NStar Electric d/b/a Eversource Energy		Town: Boston		
Email address of facility/site owner: michael.zylich@eversource.com		State: MA	Zip: 02135	County: Norfolk
Telephone no. of facility/site **owner**:				
Fax no. of facility/site **owner**:		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: One NSTAR Way				
Town: Westwood	State: MA	Zip: 02090	County: Norfolk	
c) Legal name of **operator**:		**Operator** telephone no: 508-548-1800		
John Moniz		**Operator** fax no.: 508-548-1666	**Operator** email:	
Operator contact name and title: John Moniz				
Address of **operator** (if different from owner):	Street: 396 Gifford St			
Town: Falmouth	State: MA	Zip: 02540	County: USA	

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: MAG910517
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: MAR12AW82
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:

Discharge of groundwater (subsequent to treatment) from area of soil excavation for construction activities.

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow 2.23 Is maximum flow a **design value**? Y ⊙ N ○
Average flow (include units) 1,000 gpm Is average flow a design value or estimate? design

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

pt.1: lat	42°21'N	long	71°9'N	pt.2: lat.		long.	;
pt.3: lat		long		pt.4: lat.		long.	;
pt.5: lat		long		pt.6: lat.		long.	;
pt.7: lat		long		pt.8: lat.		long.	; etc.

4) If hydrostatic testing, total volume of the discharge (gals):

5) Is the discharge intermittent ○ or seasonal ⊙ ?
Is discharge ongoing? Y ⊙ N ○

c) Expected dates of discharge (mm/dd/yy): start 6/1/2015 end 12/1/2015

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s). please see Figure 4 in Appendix

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	2540D	5000 ug/L	8000		8000	
2. Total Residual Chlorine (TRC)		☒	☐	1	Grab	4500-CL E	10 ug/L	<10		<10	
3. Total Petroleum Hydrocarbons (TPH)		☒	☐	1	Grab	1664A	5 mg/L	<5000		<5000	
4. Cyanide (CN)	57125	☒	☐	1	Grab	4500 CN CE	5.0 ug/L	<5.0		<5.0	
5. Benzene (B)	71432	☒	☐	1	Grab	8260B	0.1 ug/L	<1.0		<1.0	
6. Toluene (T)	108883	☒	☐	1	Grab	8260B	0.1 ug/L	<1.0		<1.0	
7. Ethylbenzene (E)	100414	☒	☐	1	Grab	8260B	0.1 ug/L	<1.0		<1.0	
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐	1	Grab	8260B- CALC	0.1 ug/L	<0.1		<0.1	
9. Total BTEX [2]	n/a	☒	☐	1	Grab	8260B- CLAC	0.1 ug/L	<0.1		<0.1	
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐	1	Grab	8260B	0.3 ug/L	<0.3		<0.3	
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐	1	Grab	8260B	10.0 ug/L	<10.0		<10.0	

* 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	8260B	0.2 ug/L	<0.2		<0.2	
14. Naphthalene	91203	☒	☐	1	Grab	8270D SIM	0.04 ug/L	<0.04		<0.04	
15. Carbon Tetrachloride	56235	☒	☐	1	Grab	8260B	0.1 ug/L	<0.1		<0.1	
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐	1	Grab	8260B	0.1ug/L	<0.1		<0.1	
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐	1	Grab	8260B	0.1 ug/L	<0.1		<0.1	
18a. Total dichlorobenzene		☒	☐	1	Grab	8260B- CALC	0.1 ug/L	<0.1		<0.1	
19. 1,1 Dichloroethane (DCA)	75343	☒	☐	1	Grab	8260B	0.3 ug/L	<0.3		<0.3	
20. 1,2 Dichloroethane (DCA)	107062	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
21. 1,1 Dichloroethene (DCE)	75354	☒	☐	1	Grab	8260B	0.3 ug/L	<0.3		<0.3	
22. cis-1,2 Dichloroethene (DCE)	156592	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
23. Methylene Chloride	75092	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
24. Tetrachloroethene (PCE)	127184	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐	1	Grab	8260B	0.2ug/L	<0.2		<0.2	
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	
27. Trichloroethene (TCE)	79016	☒	☐	1	Grab	8260B	0.2 ug/L	<0.2		<0.2	

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	8260B	0.2 ug/L	<0.2		<0.2	
29. Acetone	67641	☒	☐	1	Grab	8260B	2.7 ug/L	<2.7		<2.7	
30. 1,4 Dioxane	123911	☒	☐	1	Grab	8270D	0.07 ug/L	<0.07		<0.07	
31. Total Phenols	108952	☒	☐	1	Grab	420.1	30 ug/L	<30		<30	
32. Pentachlorophenol (PCP)	87865	☒	☐	1	Grab	8270D SIM	0.30 ug/L	<0.03		<0.03	
33. Total Phthalates (Phthalate esters) [4]		☐	☒	1	Grab	8270 SIM- Cal	0.19 ug/L	0.29		0.29	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☐	☒	1	Grab	8270D SIM	0.19 ug/L	0.29		0.29	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☐	☐								
a. Benzo(a) Anthracene	56553	☒	☐	1	Grab	8270D SIM	0.1 ug/L	<0.1		<0.1	
b. Benzo(a) Pyrene	50328	☒	☐	1	Grab	8270D SIM	0.1 ug/L	<0.1		<0.1	
c. Benzo(b)Fluoranthene	205992	☒	☐	1	Grab	8270D SIM	0.2 ug/L	<0.2		<0.2	
d. Benzo(k)Fluoranthene	207089	☒	☐	1	Grab	8270D SIM	0.2 ug/L	<0.2		<0.2	
e. Chrysene	21801	☒	☐	1	Grab	8270D SIM	0.01 ug/L	<0.01		<0.01	
f. Dibenzo(a,h)anthracene	53703	☒	☐	1	Grab	8270D SIM	0.02 ug/L	<0.02		<0.2	
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐	1	Grab	8270D SIM	0.02 ug/L	<0.02		<0.2	
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	8270 SIM	0.04 ug/L	<0.04		<0.04	
i. Acenaphthylene	208968	☒	☐	1	Grab	8270 SIM	0.03 ug/L	<0.03		<0.03	
j. Anthracene	120127	☒	☐	1	Grab	8270 SIM	0.03 ug/L	<0.03		<0.03	
k. Benzo(ghi) Perylene	191242	☒	☐	1	Grab	8270 SIM	0.02 ug/L	<0.02		<0.02	
l. Fluoranthene	206440	☒	☐	1	Grab	8270 SIM	0.02 ug/L	<0.02		<0.02	
m. Fluorene	86737	☒	☐	1	Grab	8270 SIM	0.03 ug/L	<0.03		<0.03	
n. Naphthalene	91203	☒	☐	1	Grab	8270 SIM	0.04 ug/L	<0.04		<0.04	
o. Phenanthrene	85018	☒	☐	1	Grab	8270 SIM	0.04 ug/L	<0.04		<0.04	
p. Pyrene	129000	☐	☒	1	Grab	8270 SIM	0.02 ug/L	0.03		0.03	
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐	1	Grab	8082A- CALC	0.03 ug/L	<0.03			
38. Chloride	16887006	☒	☐								
39. Antimony	7440360	☒	☐	1	Grab	7010	2.0 ug/L	<2.0		<2.0	
40. Arsenic	7440382	☒	☐	1	Grab	7010	2.0 ug/L	<2.0		<2.0	
41. Cadmium	7440439	☒	☐	1	Grab	7010	0.2ug/L	<0.2		<0.2	
42. Chromium III (trivalent)	16065831	☒	☐	1	Grab	6010C	10 ug/L	<10		<10	
43. Chromium VI (hexavalent)	18540299	☒	☐	1	Grab	7196A	10ug/L	<10		<10	
44. Copper	7440508	☒	☐	1	Grab	6010C	2.0 ug/L	<2.0		<2.0	
45. Lead	7439921	☒	☐	1	Grab	7010	1.0 ug/L	<1.0		<1.0	
46. Mercury	7439976	☒	☐	1	Grab	7470A	0.20 ug/L	<0.20		<0.20	
47. Nickel	7440020	☒	☐	1	Grab	6010C	4.0 ug/L	<4.0		<4.0	
48. Selenium	7782492	☒	☐	1	Grab	7010	2.0 ug/L	<2.0		<2.0	
49. Silver	7440224	☒	☐	1	Grab	6010C	1.0 ug/L	<1.0		<1.0	
50. Zinc	7440666	☐	☒	1	Grab	6010C	10.0 ug/L	12.5		12.5	
51. Iron	7439896	☐	☒	1	Grab	6010C	20.0 ug/L	101		101	
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?
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: DF: Metal: DF: Metal: DF: Metal: DF: Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ○ N ○ If Y, list which metals:

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

The treatment system in composed of three 21,000 gallon fractionation tanks in series, two 1,000 gpm bag filter units, four 10,000 pound liquid-phase granular activated carbon units, and two additional 1,000pgm bag filter units.

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 1,000 gpm Maximum flow rate of treatment system 1,000 gpm
Design flow rate of treatment system 1,000 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:
Groundwater to be discharged to municipal storm drain on site. The storm drain discharges to the Charles River. See Figure 2 and 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 B

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 14.3 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)? pathogens and total phosphorus

6. ESA and NHPA Eligibility.

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

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A ⊙ B ○ C ○ D ○ E ○ F ○

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ○ N ○ Underway ○

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ○ N ○

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 ○ 2 ⊙ 3 ○

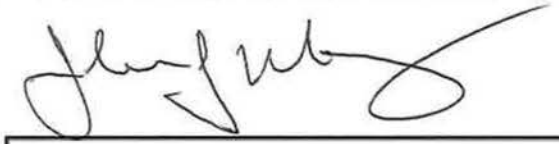
f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

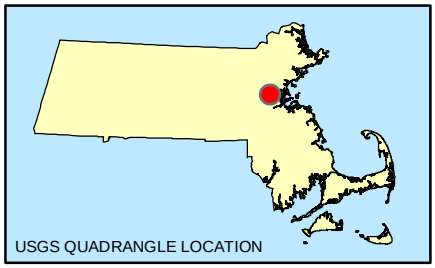
7. Supplemental information.

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

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

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, I certify that the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I certify that I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Facility/Site Name:	Station 315 - 40 Electric Ave
Operator signature:	
Printed Name &Title:	John J Moniz Supervisor
Date:	



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

Data Supplied by :

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

N W E S

PROJ. MGR.: DEL
DESIGNED BY: EMD
REVIEWED BY: DEL
OPERATOR: GAS

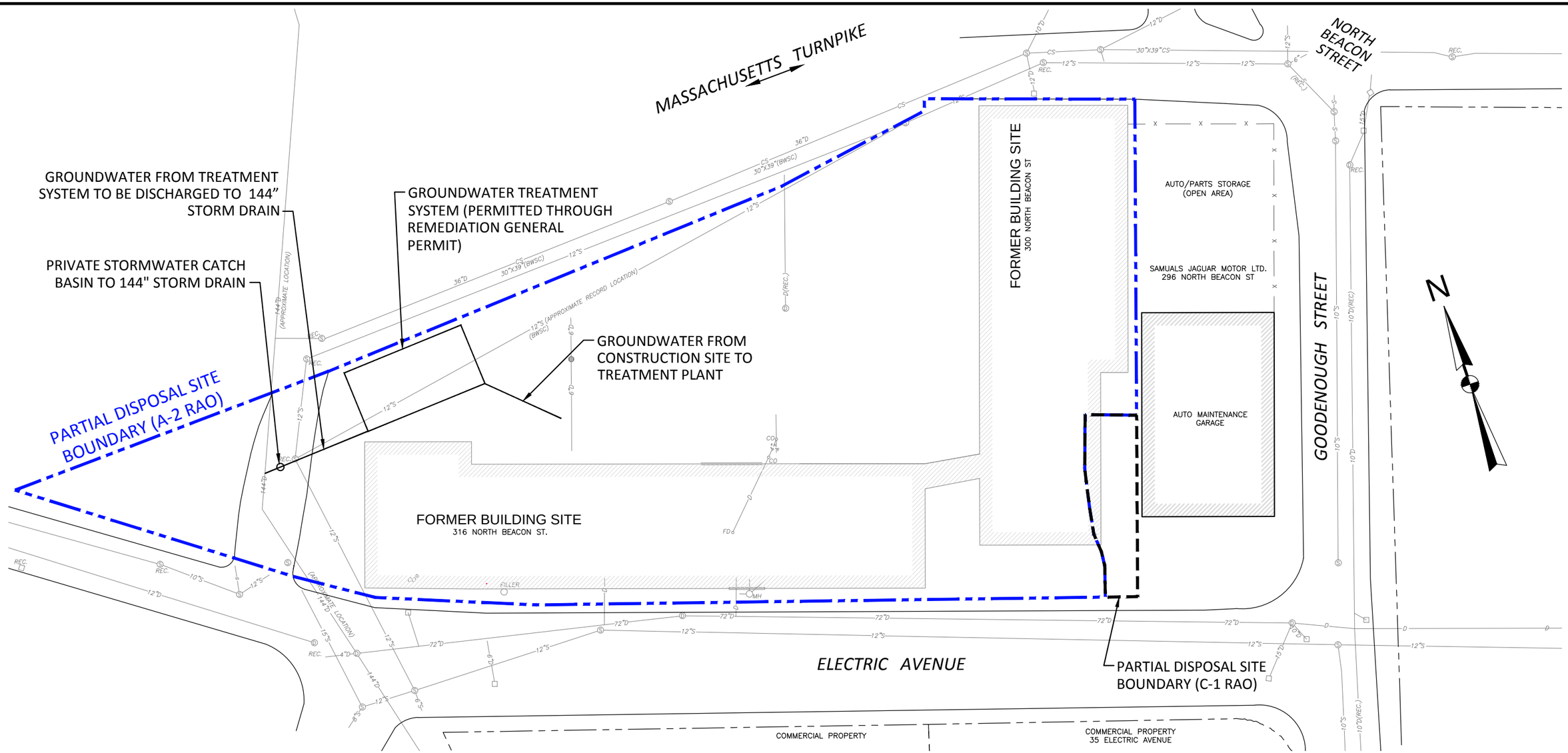
DATE: 04-13-2011

LOCUS PLAN
SHOWING 500 FOOT & 1/2 MILE RADII

JOB NO.
01.0170789.00

FORMER TRUCK EQUIPMENT BOSTON INC.
300 NORTH BEACON STREET
BRIGHTON, MASSACHUSETTS

FIGURE NO.
1



LEGEND

PROPERTY BOUNDARY

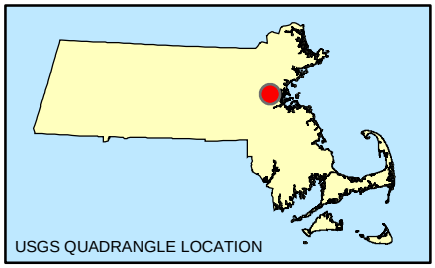
0 20' 40' 80'

SCALE: 1 INCH = 40 FEET

STATION 315
RGP FOR CONSTRUCTION DEWATERING
40 ELECTRIC AVENUE
BRIGHTON, MASSACHUSETTS

SITE PLAN

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: NSTAR	
PROJ MGR: DEL	REVIEWED BY: GWM	CHECKED BY: DEL	FIGIRE: 2
DESIGNED BY: AJB	DRAWN BY: SMW	SCALE: 1" = 40 FEET	
DATE: 04-28-2015	PROJECT NO. 01.0170789.30	REVISION NO.	



SOURCE : THIS MAP CONTAINS THE ESRI ARCGIS ONLINE USA TOPOGRAPHIC MAP SERVICE, PUBLISHED DECEMBER 12, 2009 BY ESRI ARCIMS SERVICES AND UPDATED AS NEEDED. THIS SERVICE USES UNIFORM NATIONALLY RECOGNIZED DATUM AND CARTOGRAPHY STANDARDS AND A VARIETY OF AVAILABLE SOURCES FROM SEVERAL DATA PROVIDERS.

Data Supplied by : esri

0 75 150 300 450

SCALE IN FEET

N W E S

PROJ. MGR.: DEL
DESIGNED BY: AJB
REVIEWED BY: AJB
OPERATOR: SMW

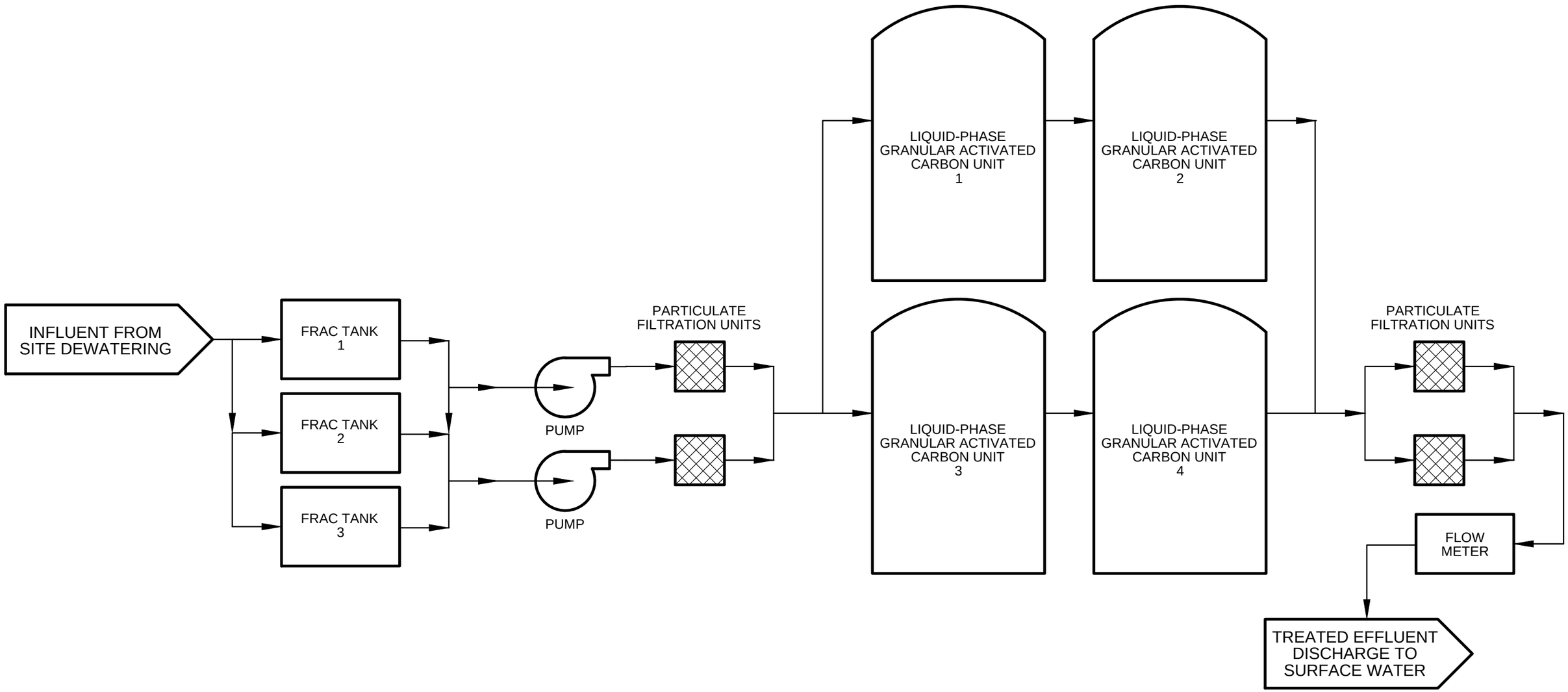
DATE: 04-28-2015

BOSTON SEWER AND WATER STORM DRAIN OUTFALL TO CHARLES RIVER

STATION 315
40 ELECTRIC AVENUE
BRIGHTON, MASSACHUSETTS

JOB NO.
01.0170789.30

FIGURE NO.
3



STATION 315 40 ELECTRIC AVENUE
RAM PLAN IMPLEMENTATION
BRIGHTON, MA
MASS DEP RTN 3-19793

PROCESS FLOW DIAGRAM

PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com

PREPARED FOR: EVERSOURCE ENERGY

PROJ MGR: DEL	REVIEWED BY: GWM	CHECKED BY: RJM	FIGURE: 5
DESIGNED BY: AG	DRAWN BY: EMD / SMW	SCALE: NOT TO SCALE	
DATE: 04-24-2015	PROJECT NO. 01.0170789.30	REVISION NO.	

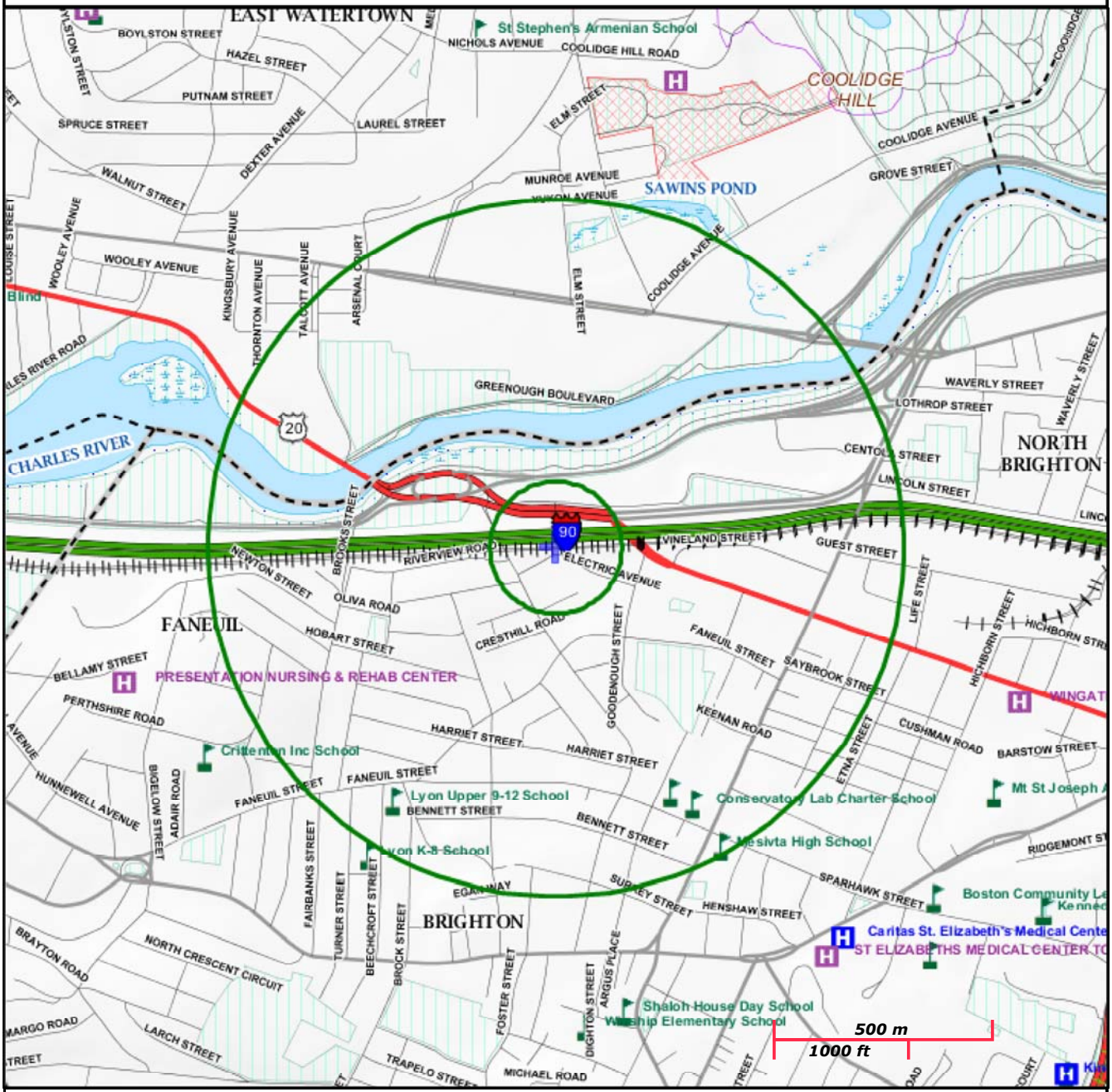
MassDEP - Bureau of Waste Site Cleanup

Phase 1 Site Assessment Map: 500 feet & 0.5 Mile Radii

Site Information:
40 ELECTRIC AVE BOSTON, MA
NAD83 UTM Meters:
5214689mN , -7921079mE (Zone: 18)
April 21, 2015

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

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major,PWS; Streams: Perennial, Intermittent, Man Made Shore, Dam
Aquifers: Medium Yield, High Yield, EPA Sole Source
Non Potential Drinking Water Source Area: Medium, High (Yield)
PWS Protection Areas: Zone II, IWPA, Zone A
Hydrography: Open Water, PWS Reservoir, Tidal Flat
Wetlands: Freshwater, Saltwater, Cranberry Bog
FEMA 100yr Floodplain; Protected Open Space; ACEC
Est. Rare Wetland Wildlife Hab; Vernal Pool: Cert., Potential
Solid Waste Landfill; PWS: Com.GW,SW, Emerg.,Non-Com.

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

See Suffolk County

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Barnstable	Piping Plover	Threatened	Coastal Beaches	All Towns
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Chatham
	Sandplain gerardia	Endangered	Open areas with sandy soils.	Sandwich and Falmouth.
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Bourne (north of the Cape Cod Canal)
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Berkshire	Bog Turtle	Threatened	Wetlands	Egremont and Sheffield
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Bristol	Piping Plover	Threatened	Coastal Beaches	Fairhaven, Dartmouth, Westport
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Fairhaven, New Bedford, Dartmouth, Westport
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Taunton
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Dukes	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	All Towns
	Piping Plover	Threatened	Coastal Beaches	All Towns
	Northeastern beach tiger beetle	Threatened	Coastal Beaches	Aquinnah and Chilmark
	Sandplain gerardia	Endangered	Open areas with sandy soils.	West Tisbury
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

Updated 01/09/2015

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Essex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Gloucester, Essex and Manchester
	Piping Plover	Threatened	Coastal Beaches	Gloucester, Essex, Ipswich, Rowley, Revere, Newbury, Newburyport and Salisbury
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Franklin	Northeastern bulrush	Endangered	Wetlands	Montague, Warwick
	Dwarf wedgemussel	Endangered	Mill River	Whately
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampshire	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Hadley
	Puritan tiger beetle	Threatened	Sandy beaches along the Connecticut River	Northampton and Hadley
	Dwarf wedgemussel	Endangered	Rivers and Streams.	Hatfield, Amherst and Northampton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Hampden	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Southwick
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Middlesex	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Groton
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Nantucket	Piping Plover	Threatened	Coastal Beaches	Nantucket
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Nantucket
	American burying beetle	Endangered	Upland grassy meadows	Nantucket
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

Updated 01/09/2015

FEDERALLY LISTED ENDANGERED AND THREATENED SPECIES IN MASSACHUSETTS

COUNTY	SPECIES	FEDERAL STATUS	GENERAL LOCATION/HABITAT	TOWNS
Plymouth	Piping Plover	Threatened	Coastal Beaches	Scituate, Marshfield, Duxbury, Plymouth, Wareham and Mattapoisett
	Northern Red-bellied Cooter	Endangered	Inland Ponds and Rivers	Kingston, Middleborough, Carver, Plymouth, Bourne, Wareham, Halifax, and Pembroke
	Roseate Tern	Endangered	Coastal beaches and the Atlantic Ocean	Plymouth, Marion, Wareham, and Mattapoisett.
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Suffolk	Piping Plover	Threatened	Coastal Beaches	Revere, Winthrop
	Red Knot[1]	Threatened	Coastal Beaches and Rocky Shores, sand and mud flats	Coastal Towns
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide
Worcester	Small whorled Pogonia	Threatened	Forests with somewhat poorly drained soils and/or a seasonally high water table	Leominster
	Northern Long-eared Bat	Proposed Endangered	Winter- mines and caves, Summer – wide variety of forested habitats	Statewide

[1]Migratory only, scattered along the coast in small numbers

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

Updated 01/09/2015

Massachusetts Cultural Resource Information System

MACRIS

MACRIS Search Results

Search Criteria: Town(s): Boston; Place: Brighton; Street No: 40; Street Name: Electric Ave; Resource Type(s): Area, Building, Burial Ground, Object, Structure;

Inv. No.	Property Name	Street	Town	Year

CERTIFICATE OF ANALYSIS

David E Leone
GZA GeoEnvironmental, Inc.
249 Vanderbilt Avenue
Norwood, MA 02062

RE: NStar Station 315 (01.0170789.30)
ESS Laboratory Work Order Number: 1504333

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 12:38 pm, Apr 22, 2015

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 Calibrations, 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: NStar Station 315

ESS Laboratory Work Order: 1504333

SAMPLE RECEIPT

The following samples were received on April 15, 2015 for the analyses specified on the enclosed Chain of Custody Record.

The samples and analyses listed below were analyzed in accordance with the 2010 Remediation General Permit (RGP) under the National Pollutant Discharge Elimination System (NPDES).

Sample "NSTAR 315 RGP" for TCR & HexCr were received outside of the holding time.

Revision 1 April 22, 2015: This report has been revised to include Tert-butyl Alcohol.

Lab Number	Sample Name	Matrix	Analysis
1504333-01	NSTAR 315 RGP	Ground Water	1664A, 2540D, 300.0, 420.1, 4500 CN CE, 4500-Cl E, 6010C, 7010, 7196A, 7470A, 8011, 8082A, 8260B, 8270D, 8270D SIM

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315 ESS Laboratory Work Order: 1504333

PROJECT NARRATIVE

8260B Volatile Organic Compounds

CD51733-BS1 **Blank Spike recovery is above upper control limit (B+).**
Acetone (139% @ 70-130%)

8270D(SIM) Semi-Volatile Organic Compounds

1504333-01 **Present in Method Blank (B).**
bis(2-Ethylhexyl)phthalate

1504333-01 **Surrogate recovery(ies) above upper control limit (S+).**
2,4,6-Tribromophenol (129% @ 15-110%)

CD51625-BSD1 **Surrogate recovery(ies) above upper control limit (S+).**
2,4,6-Tribromophenol (124% @ 15-110%)

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

CYD0239-CCV1 **Continuing Calibration recovery is above upper control limit (C+).**
1,4-Dioxane-d8 (122% @ 80-120%)

CYD0258-CCV1 **Continuing Calibration recovery is above upper control limit (C+).**
1,4-Dioxane-d8 (122% @ 80-120%)

CYD0258-TUN1 **DDT breakdown > 20%**

Classical Chemistry

1504333-01 **Estimated value. Sample hold times were exceeded (H).**
Hexavalent Chromium

1504333-01 **The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.**
Total Residual Chlorine

Total Metals

CD51620-BS1 **Blank Spike recovery is above upper control limit (B+).**
Lead (189% @ 80-120%)

CD51620-BSD1 **Relative percent difference for duplicate is outside of criteria (D+).**
Lead (51% @ 20%)

No other observations noted.

End of Project Narrative.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315 ESS Laboratory Work Order: 1504333

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

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
8015D - 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 and Graphite Furnace Digestion
3020A - Aqueous 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
3546 - Microwave Extraction
3580A - Waste Dilution
5030B - Aqueous Purge and Trap
5030C - Aqueous Purge and Trap
5035 - Solid Purge and Trap

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water
Units: ug/L

Extraction Method: 3005A/200.7

Total Metals

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	I/V	F/V	Batch
Antimony	ND (2.0)		7010		1	KJK	04/17/15 19:50	50	10	CD51620
Arsenic	ND (2.0)		7010		1	KJK	04/17/15 16:19	50	10	CD51620
Cadmium	ND (0.2)		7010		1	NAR	04/18/15 20:28	50	10	CD51620
Chromium	ND (4.0)		6010C		1	NAR	04/16/15 19:17	50	10	CD51620
Chromium III	ND (10)		6010C		1	MJV	04/16/15 19:17	1	1	[CALC]
Copper	ND (2.0)		6010C		1	NAR	04/16/15 19:17	50	10	CD51620
Iron	**101** (20.0)		6010C		1	NAR	04/16/15 19:17	50	10	CD51620
Lead	ND (1.0)		7010		1	KJK	04/18/15 17:32	50	10	CD51620
Mercury	ND (0.20)		7470A		1	BJV	04/17/15 13:07	20	40	CD51545
Nickel	ND (4.0)		6010C		1	NAR	04/16/15 19:17	50	10	CD51620
Selenium	ND (2.0)		7010		1	KJK	04/17/15 21:51	50	10	CD51620
Silver	ND (1.0)		6010C		1	NAR	04/16/15 19:17	50	10	CD51620
Zinc	**12.5** (10.0)		6010C		1	NAR	04/16/15 19:17	50	10	CD51620

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3510C

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: TAJ
Prepared: 4/17/15 8:00
Cleanup Method: 3665A

8082A Polychlorinated Biphenyls (PCB)

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Aroclor 1016	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1221	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1232	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1242	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1248	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1254	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1260	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1262	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703
Aroclor 1268	ND (0.09)	0.03	8082A		1	04/17/15 12:47		CD51703

	%Recovery	Qualifier	Limits
Surrogate: Decachlorobiphenyl	*62 %*		*30-150*
Surrogate: Decachlorobiphenyl [2C]	*67 %*		*30-150*
Surrogate: Tetrachloro-m-xylene	*65 %*		*30-150*
Surrogate: Tetrachloro-m-xylene [2C]	*67 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A
Initial Volume: 5
Final Volume: 5
Extraction Method: 5030B

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: MD

8260B Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,1,1-Trichloroethane	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,1,2-Trichloroethane	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,1-Dichloroethane	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,1-Dichloroethene	ND (1.0)	0.3	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,2-Dibromoethane	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,2-Dichlorobenzene	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,2-Dichloroethane	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,3-Dichlorobenzene	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
1,4-Dichlorobenzene	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
Acetone	ND (10.0)	2.7	8260B		1	04/17/15 19:51	CYD0252	CD51733
Benzene	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
Carbon Tetrachloride	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
cis-1,2-Dichloroethene	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
Ethylbenzene	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
Methyl tert-Butyl Ether	ND (1.0)	0.3	8260B		1	04/17/15 19:51	CYD0252	CD51733
Methylene Chloride	ND (2.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
Tertiary-amyl methyl ether	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
Tertiary-butyl Alcohol	ND (25.0)	10.0	8260B		1	04/17/15 19:51	CYD0252	CD51733
Tetrachloroethene	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
Toluene	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
Trichloroethene	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
Vinyl Chloride	ND (1.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733
Xylene O	ND (1.0)	0.1	8260B		1	04/17/15 19:51	CYD0252	CD51733
Xylene P,M	ND (2.0)	0.2	8260B		1	04/17/15 19:51	CYD0252	CD51733

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichloroethane-d4	*127 %*		*70-130*
Surrogate: 4-Bromofluorobenzene	*113 %*		*70-130*
Surrogate: Dibromofluoromethane	*124 %*		*70-130*
Surrogate: Toluene-d8	*116 %*		*70-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 1
Extraction Method: 3520C

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: IBM
Prepared: 4/16/15 16:45

8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
1,4-Dioxane	ND (0.2)	0.07	8270D		1	04/18/15 14:35	CYD0258	CD51539

	%Recovery	Qualifier	Limits
Surrogate: 1,4-Dioxane-d8	*76 %*		*15-115*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A
Initial Volume: 1070
Final Volume: 0.25
Extraction Method: 3510C

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: IBM
Prepared: 4/16/15 16:45

8270D(SIM) Semi-Volatile Organic Compounds

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyzed	Sequence	Batch
Acenaphthene	ND (0.19)	0.04	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Acenaphthylene	ND (0.19)	0.03	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Anthracene	ND (0.19)	0.03	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Benzo(a)anthracene	ND (0.05)	0.01	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Benzo(a)pyrene	ND (0.05)	0.01	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Benzo(b)fluoranthene	ND (0.05)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Benzo(g,h,i)perylene	ND (0.19)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Benzo(k)fluoranthene	ND (0.05)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
bis(2-Ethylhexyl)phthalate	**B, J 0.29** (2.34)	0.19	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Butylbenzylphthalate	ND (2.34)	0.19	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Chrysene	ND (0.05)	0.01	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Dibenzo(a,h)Anthracene	ND (0.05)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Diethylphthalate	ND (2.34)	0.19	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Dimethylphthalate	ND (2.34)	0.19	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Di-n-butylphthalate	ND (2.34)	0.19	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Di-n-octylphthalate	ND (2.34)	0.19	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Fluoranthene	ND (0.19)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Fluorene	ND (0.19)	0.03	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Indeno(1,2,3-cd)Pyrene	ND (0.05)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Naphthalene	ND (0.19)	0.04	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Pentachlorophenol	ND (0.84)	0.30	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Phenanthrene	ND (0.19)	0.04	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625
Pyrene	**J 0.03** (0.19)	0.02	8270D SIM		1	04/17/15 15:05	CYD0246	CD51625

	%Recovery	Qualifier	Limits
Surrogate: 1,2-Dichlorobenzene-d4	*57 %*		*30-130*
Surrogate: 2,4,6-Tribromophenol	*129 %*	*S+*	*15-110*
Surrogate: 2-Fluorobiphenyl	*72 %*		*30-130*
Surrogate: Nitrobenzene-d5	*87 %*		*30-130*
Surrogate: p-Terphenyl-d14	*92 %*		*30-130*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water

Classical Chemistry

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Units	Batch
Chloride	**558** (100)		300.0		200	JLK	04/18/15 17:26	mg/L	CD51803
Hexavalent Chromium	**H** ND (10)		7196A		1	MJV	04/16/15 8:28	ug/L	CD51601
Phenols	ND (100)	30	420.1		1	EEM	04/20/15 11:35	ug/L	CD52012
Total Cyanide (LL)	ND (5.0)		4500 CN CE		1	JLK	04/18/15 0:00	ug/L	CD51802
Total Petroleum Hydrocarbon	ND (5)		1664A		1	JLK	04/17/15 17:20	mg/L	CD51747
Total Residual Chlorine	**HT** ND (10)		4500-Cl E		1	JLK	04/16/15 10:58	ug/L	CD51619
Total Suspended Solids	**8000** (5000)		2540D		1	JLK	04/16/15 17:25	ug/L	CD51618

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315
Client Sample ID: NSTAR 315 RGP
Date Sampled: 04/14/15 13:00
Percent Solids: N/A
Initial Volume: 35
Final Volume: 2
Extraction Method: 504/8011

ESS Laboratory Work Order: 1504333
ESS Laboratory Sample ID: 1504333-01
Sample Matrix: Ground Water
Units: ug/L
Analyst: JXS
Prepared: 4/16/15 17:00

8011 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane

Analyte	Results (MRL)	MDL	Method	Limit	DF	Analyst	Analyzed	Sequence	Batch
1,2-Dibromoethane	ND (0.015)		8011		1	JXS	04/16/15 18:36		CD51626

	%Recovery	Qualifier	Limits
Surrogate: Pentachloroethane	*107 %*		*30-150*

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Total Metals										
Batch CD51545 - 245.1/7470A										
Blank										
Mercury	ND	0.20	ug/L							
LCS										
Mercury	6.04	0.20	ug/L	6.000		101	80-120			
LCS Dup										
Mercury	6.18	0.20	ug/L	6.000		103	80-120	2	20	
Batch CD51620 - 3005A/200.7										
Blank										
Antimony	ND	2.0	ug/L							
Arsenic	ND	2.0	ug/L							
Cadmium	ND	0.2	ug/L							
Chromium	ND	4.0	ug/L							
Copper	ND	2.0	ug/L							
Iron	ND	20.0	ug/L							
Lead	ND	1.0	ug/L							
Nickel	ND	4.0	ug/L							
Selenium	ND	2.0	ug/L							
Silver	ND	1.0	ug/L							
Zinc	ND	10.0	ug/L							
LCS										
Antimony	235	100	ug/L	250.0		94	80-120			
Arsenic	233	100	ug/L	250.0		93	80-120			
Cadmium	126	250	ug/L	125.0		101	80-120			
Chromium	238	10.0	ug/L	250.0		95	80-120			
Copper	231	5.0	ug/L	250.0		92	80-120			
Iron	1190	50.0	ug/L	1250		96	80-120			
Lead	473	50.0	ug/L	250.0		189	80-120			B+
Nickel	234	10.0	ug/L	250.0		94	80-120			
Selenium	453	100	ug/L	500.0		91	80-120			
Silver	121	2.5	ug/L	125.0		97	80-120			
Zinc	239	25.0	ug/L	250.0		96	80-120			
LCS Dup										
Antimony	233	100	ug/L	250.0		93	80-120	0.8	20	
Arsenic	235	100	ug/L	250.0		94	80-120	1	20	
Cadmium	121	250	ug/L	125.0		97	80-120	4	20	
Chromium	240	10.0	ug/L	250.0		96	80-120	0.9	20	
Copper	234	5.0	ug/L	250.0		94	80-120	2	20	
Iron	1280	50.0	ug/L	1250		102	80-120	7	20	
Lead	281	50.0	ug/L	250.0		113	80-120	51	20	D+
Nickel	237	10.0	ug/L	250.0		95	80-120	1	20	
Selenium	455	100	ug/L	500.0		91	80-120	0.6	20	
Silver	123	2.5	ug/L	125.0		98	80-120	1	20	
Zinc	244	25.0	ug/L	250.0		98	80-120	2	20	

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8082A Polychlorinated Biphenyls (PCB)										
Batch CD51703 - 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							
Aroclor 1262	ND	0.10	ug/L							
Aroclor 1268	ND	0.10	ug/L							
Surrogate: Decachlorobiphenyl	*0.0385*		ug/L	*0.05000*		*77*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0449*		ug/L	*0.05000*		*90*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0294*		ug/L	*0.05000*		*59*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0284*		ug/L	*0.05000*		*57*	*30-150*			
LCS										
Aroclor 1016	0.81	0.10	ug/L	1.000		81	40-140			
Aroclor 1260	0.85	0.10	ug/L	1.000		85	40-140			
Surrogate: Decachlorobiphenyl	*0.0359*		ug/L	*0.05000*		*72*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0425*		ug/L	*0.05000*		*85*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0281*		ug/L	*0.05000*		*56*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0288*		ug/L	*0.05000*		*58*	*30-150*			
LCS Dup										
Aroclor 1016	0.91	0.10	ug/L	1.000		91	40-140	12	20	
Aroclor 1260	0.91	0.10	ug/L	1.000		91	40-140	7	20	
Surrogate: Decachlorobiphenyl	*0.0375*		ug/L	*0.05000*		*75*	*30-150*			
Surrogate: Decachlorobiphenyl [2C]	*0.0445*		ug/L	*0.05000*		*89*	*30-150*			
Surrogate: Tetrachloro-m-xylene	*0.0313*		ug/L	*0.05000*		*63*	*30-150*			
Surrogate: Tetrachloro-m-xylene [2C]	*0.0319*		ug/L	*0.05000*		*64*	*30-150*			
8260B Volatile Organic Compounds										
Batch CD51733 - 5030B										
Blank										
1,1,1-Trichloroethane	ND	1.0	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-Dibromoethane	ND	1.0	ug/L							
1,2-Dichlorobenzene	ND	1.0	ug/L							
1,2-Dichloroethane	ND	1.0	ug/L							
1,3-Dichlorobenzene	ND	1.0	ug/L							
1,4-Dichlorobenzene	ND	1.0	ug/L							
Acetone	ND	10.0	ug/L							

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CD51733 - 5030B										
Benzene	ND	1.0	ug/L							
Carbon Tetrachloride	ND	1.0	ug/L							
cis-1,2-Dichloroethene	ND	1.0	ug/L							
Ethylbenzene	ND	1.0	ug/L							
Methyl tert-Butyl Ether	ND	1.0	ug/L							
Methylene Chloride	ND	2.0	ug/L							
Tertiary-amyl methyl ether	ND	1.0	ug/L							
Tertiary-butyl Alcohol	ND	25.0	ug/L							
Tetrachloroethene	ND	1.0	ug/L							
Toluene	ND	1.0	ug/L							
Trichloroethene	ND	1.0	ug/L							
Vinyl Chloride	ND	1.0	ug/L							
Xylene O	ND	1.0	ug/L							
Xylene P,M	ND	2.0	ug/L							
Surrogate: 1,2-Dichloroethane-d4	*30.1*		ug/L	*25.00*		*120*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*27.9*		ug/L	*25.00*		*112*	*70-130*			
Surrogate: Dibromofluoromethane	*29.9*		ug/L	*25.00*		*120*	*70-130*			
Surrogate: Toluene-d8	*29.0*		ug/L	*25.00*		*116*	*70-130*			
LCS										
1,1,1-Trichloroethane	10.7		ug/L	10.00		107	70-130			
1,1,2-Trichloroethane	9.0		ug/L	10.00		90	70-130			
1,1-Dichloroethane	9.2		ug/L	10.00		92	70-130			
1,1-Dichloroethene	8.9		ug/L	10.00		89	70-130			
1,2-Dibromoethane	10.1		ug/L	10.00		101	70-130			
1,2-Dichlorobenzene	9.5		ug/L	10.00		95	70-130			
1,2-Dichloroethane	10.6		ug/L	10.00		106	70-130			
1,3-Dichlorobenzene	9.9		ug/L	10.00		99	70-130			
1,4-Dichlorobenzene	10.0		ug/L	10.00		100	70-130			
Acetone	69.5		ug/L	50.00		139	70-130			B+
Benzene	9.6		ug/L	10.00		96	70-130			
Carbon Tetrachloride	9.5		ug/L	10.00		95	70-130			
cis-1,2-Dichloroethene	9.8		ug/L	10.00		98	70-130			
Ethylbenzene	10.0		ug/L	10.00		100	70-130			
Methyl tert-Butyl Ether	9.2		ug/L	10.00		92	70-130			
Methylene Chloride	9.0		ug/L	10.00		90	70-130			
Tertiary-amyl methyl ether	8.6		ug/L	10.00		86	70-130			
Tertiary-butyl Alcohol	44.8		ug/L	50.00		90	70-130			
Tetrachloroethene	9.7		ug/L	10.00		97	70-130			
Toluene	10.1		ug/L	10.00		101	70-130			
Trichloroethene	9.5		ug/L	10.00		95	70-130			
Vinyl Chloride	10.9		ug/L	10.00		109	70-130			
Xylene O	10.4		ug/L	10.00		104	70-130			
Xylene P,M	21.0		ug/L	20.00		105	70-130			
Surrogate: 1,2-Dichloroethane-d4	*28.5*		ug/L	*25.00*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*30.4*		ug/L	*25.00*		*122*	*70-130*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8260B Volatile Organic Compounds										
Batch CD51733 - 5030B										
Surrogate: Dibromofluoromethane	*28.7*		ug/L	*25.00*		*115*	*70-130*			
Surrogate: Toluene-d8	*30.2*		ug/L	*25.00*		*121*	*70-130*			
LCS Dup										
1,1,1-Trichloroethane	10.5		ug/L	10.00		105	70-130	2	25	
1,1,2-Trichloroethane	9.1		ug/L	10.00		91	70-130	0.9	25	
1,1-Dichloroethane	9.0		ug/L	10.00		90	70-130	2	25	
1,1-Dichloroethene	8.9		ug/L	10.00		89	70-130	0	25	
1,2-Dibromoethane	10.0		ug/L	10.00		100	70-130	0.2	25	
1,2-Dichlorobenzene	9.3		ug/L	10.00		93	70-130	2	25	
1,2-Dichloroethane	10.4		ug/L	10.00		104	70-130	2	25	
1,3-Dichlorobenzene	9.5		ug/L	10.00		95	70-130	4	25	
1,4-Dichlorobenzene	9.7		ug/L	10.00		97	70-130	3	25	
Acetone	55.2		ug/L	50.00		110	70-130	23	25	
Benzene	9.3		ug/L	10.00		93	70-130	2	25	
Carbon Tetrachloride	9.4		ug/L	10.00		94	70-130	2	25	
cis-1,2-Dichloroethene	9.5		ug/L	10.00		95	70-130	2	25	
Ethylbenzene	9.7		ug/L	10.00		97	70-130	3	25	
Methyl tert-Butyl Ether	9.2		ug/L	10.00		92	70-130	0.4	25	
Methylene Chloride	8.6		ug/L	10.00		86	70-130	4	25	
Tertiary-amyl methyl ether	8.5		ug/L	10.00		85	70-130	2	25	
Tertiary-butyl Alcohol	45.9		ug/L	50.00		92	70-130	2	25	
Tetrachloroethene	9.5		ug/L	10.00		95	70-130	3	25	
Toluene	10.1		ug/L	10.00		101	70-130	0.4	25	
Trichloroethene	9.3		ug/L	10.00		93	70-130	2	25	
Vinyl Chloride	10.8		ug/L	10.00		108	70-130	0.9	25	
Xylene O	10.3		ug/L	10.00		103	70-130	2	25	
Xylene P,M	20.8		ug/L	20.00		104	70-130	1	25	
Surrogate: 1,2-Dichloroethane-d4	*28.4*		ug/L	*25.00*		*114*	*70-130*			
Surrogate: 4-Bromofluorobenzene	*29.9*		ug/L	*25.00*		*119*	*70-130*			
Surrogate: Dibromofluoromethane	*28.8*		ug/L	*25.00*		*115*	*70-130*			
Surrogate: Toluene-d8	*29.8*		ug/L	*25.00*		*119*	*70-130*			
8270D(SIM) Semi-Volatile Organic Compounds w/ Isotope Dilution										
Batch CD51539 - 3520C										
Blank										
1,4-Dioxane	ND	0.2	ug/L							
Surrogate: 1,4-Dioxane-d8	*4.05*		ug/L	*5.000*		*81*	*15-115*			
LCS										
1,4-Dioxane	8.9	0.2	ug/L	10.00		89	40-140			
Surrogate: 1,4-Dioxane-d8	*3.66*		ug/L	*5.000*		*73*	*15-115*			
LCS Dup										
1,4-Dioxane	8.8	0.2	ug/L	10.00		88	40-140	0.3	20	
Surrogate: 1,4-Dioxane-d8	*3.74*		ug/L	*5.000*		*75*	*15-115*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270D(SIM) Semi-Volatile Organic Compounds										
Batch CD51625 - 3510C										
Blank										
Acenaphthene	ND	0.20	ug/L							
Acenaphthylene	ND	0.20	ug/L							
Anthracene	ND	0.20	ug/L							
Benzo(a)anthracene	ND	0.05	ug/L							
Benzo(a)pyrene	ND	0.05	ug/L							
Benzo(b)fluoranthene	ND	0.05	ug/L							
Benzo(g,h,i)perylene	ND	0.20	ug/L							
Benzo(k)fluoranthene	ND	0.05	ug/L							
bis(2-Ethylhexyl)phthalate	0.37	2.50	ug/L							J
Butylbenzylphthalate	ND	2.50	ug/L							
Chrysene	ND	0.05	ug/L							
Dibenzo(a,h)Anthracene	ND	0.05	ug/L							
Diethylphthalate	ND	2.50	ug/L							
Dimethylphthalate	ND	2.50	ug/L							
Di-n-butylphthalate	ND	2.50	ug/L							
Di-n-octylphthalate	ND	2.50	ug/L							
Fluoranthene	ND	0.20	ug/L							
Fluorene	ND	0.20	ug/L							
Indeno(1,2,3-cd)Pyrene	ND	0.05	ug/L							
Naphthalene	ND	0.20	ug/L							
Pentachlorophenol	ND	0.90	ug/L							
Phenanthrene	ND	0.20	ug/L							
Pyrene	ND	0.20	ug/L							
Surrogate: 1,2-Dichlorobenzene-d4	*1.46*		ug/L	*2.500*		*58*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*3.34*		ug/L	*3.750*		*89*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*1.68*		ug/L	*2.500*		*67*	*30-130*			
Surrogate: Nitrobenzene-d5	*1.99*		ug/L	*2.500*		*79*	*30-130*			
Surrogate: p-Terphenyl-d14	*2.19*		ug/L	*2.500*		*87*	*30-130*			
LCS										
Acenaphthene	2.87	0.20	ug/L	4.000		72	40-140			
Acenaphthylene	2.87	0.20	ug/L	4.000		72	40-140			
Anthracene	3.09	0.20	ug/L	4.000		77	40-140			
Benzo(a)anthracene	3.13	0.05	ug/L	4.000		78	40-140			
Benzo(a)pyrene	3.33	0.05	ug/L	4.000		83	40-140			
Benzo(b)fluoranthene	3.48	0.05	ug/L	4.000		87	40-140			
Benzo(g,h,i)perylene	3.21	0.20	ug/L	4.000		80	40-140			
Benzo(k)fluoranthene	3.25	0.05	ug/L	4.000		81	40-140			
bis(2-Ethylhexyl)phthalate	3.83	2.50	ug/L	4.000		96	40-140			
Butylbenzylphthalate	3.66	2.50	ug/L	4.000		92	40-140			
Chrysene	3.12	0.05	ug/L	4.000		78	40-140			
Dibenzo(a,h)Anthracene	3.25	0.05	ug/L	4.000		81	40-140			
Diethylphthalate	3.17	2.50	ug/L	4.000		79	40-140			
Dimethylphthalate	3.08	2.50	ug/L	4.000		77	40-140			
Di-n-butylphthalate	3.45	2.50	ug/L	4.000		86	40-140			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
8270D(SIM) Semi-Volatile Organic Compounds										
Batch CD51625 - 3510C										
Di-n-octylphthalate	3.76	2.50	ug/L	4.000		94	40-140			
Fluoranthene	3.30	0.20	ug/L	4.000		83	40-140			
Fluorene	2.89	0.20	ug/L	4.000		72	40-140			
Indeno(1,2,3-cd)Pyrene	3.31	0.05	ug/L	4.000		83	40-140			
Naphthalene	2.46	0.20	ug/L	4.000		61	40-140			
Pentachlorophenol	3.59	0.90	ug/L	4.000		90	30-130			
Phenanthrene	2.95	0.20	ug/L	4.000		74	40-140			
Pyrene	3.16	0.20	ug/L	4.000		79	40-140			
Surrogate: 1,2-Dichlorobenzene-d4	*1.65*		ug/L	*2.500*		*66*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*4.12*		ug/L	*3.750*		*110*	*15-110*			
Surrogate: 2-Fluorobiphenyl	*1.90*		ug/L	*2.500*		*76*	*30-130*			
Surrogate: Nitrobenzene-d5	*2.19*		ug/L	*2.500*		*88*	*30-130*			
Surrogate: p-Terphenyl-d14	*2.26*		ug/L	*2.500*		*90*	*30-130*			
LCS Dup										
Acenaphthene	2.85	0.20	ug/L	4.000		71	40-140	0.8	20	
Acenaphthylene	2.84	0.20	ug/L	4.000		71	40-140	1	20	
Anthracene	3.17	0.20	ug/L	4.000		79	40-140	3	20	
Benzo(a)anthracene	3.15	0.05	ug/L	4.000		79	40-140	0.6	20	
Benzo(a)pyrene	3.38	0.05	ug/L	4.000		85	40-140	2	20	
Benzo(b)fluoranthene	3.50	0.05	ug/L	4.000		87	40-140	0.5	20	
Benzo(g,h,i)perylene	3.29	0.20	ug/L	4.000		82	40-140	2	20	
Benzo(k)fluoranthene	3.36	0.05	ug/L	4.000		84	40-140	3	20	
bis(2-Ethylhexyl)phthalate	4.01	2.50	ug/L	4.000		100	40-140	4	20	
Butylbenzylphthalate	3.75	2.50	ug/L	4.000		94	40-140	2	20	
Chrysene	3.17	0.05	ug/L	4.000		79	40-140	2	20	
Dibenzo(a,h)Anthracene	3.33	0.05	ug/L	4.000		83	40-140	2	20	
Diethylphthalate	3.24	2.50	ug/L	4.000		81	40-140	2	20	
Dimethylphthalate	3.11	2.50	ug/L	4.000		78	40-140	1	20	
Di-n-butylphthalate	3.52	2.50	ug/L	4.000		88	40-140	2	20	
Di-n-octylphthalate	3.94	2.50	ug/L	4.000		99	40-140	5	20	
Fluoranthene	3.39	0.20	ug/L	4.000		85	40-140	3	20	
Fluorene	2.86	0.20	ug/L	4.000		72	40-140	1	20	
Indeno(1,2,3-cd)Pyrene	3.35	0.05	ug/L	4.000		84	40-140	1	20	
Naphthalene	2.36	0.20	ug/L	4.000		59	40-140	4	20	
Pentachlorophenol	3.86	0.90	ug/L	4.000		97	30-130	7	20	
Phenanthrene	3.03	0.20	ug/L	4.000		76	40-140	3	20	
Pyrene	3.24	0.20	ug/L	4.000		81	40-140	2	20	
Surrogate: 1,2-Dichlorobenzene-d4	*1.58*		ug/L	*2.500*		*63*	*30-130*			
Surrogate: 2,4,6-Tribromophenol	*4.64*		ug/L	*3.750*		*124*	*15-110*			*S+*
Surrogate: 2-Fluorobiphenyl	*1.86*		ug/L	*2.500*		*74*	*30-130*			
Surrogate: Nitrobenzene-d5	*2.13*		ug/L	*2.500*		*85*	*30-130*			
Surrogate: p-Terphenyl-d14	*2.25*		ug/L	*2.500*		*90*	*30-130*			
Classical Chemistry										
Batch CD51601 - General Preparation										

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315 ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Classical Chemistry										
Batch CD51601 - General Preparation										
Blank										
Hexavalent Chromium	ND	10	ug/L							
LCS										
Hexavalent Chromium	498	10	ug/L	499.8		100	90-110			
LCS Dup										
Hexavalent Chromium	498	10	ug/L	499.8		100	90-110	0.1	20	
Batch CD51618 - General Preparation										
Blank										
Total Suspended Solids	ND	5000	ug/L							
LCS										
Total Suspended Solids	70		mg/L	68.80		99	80-120			
Batch CD51619 - General Preparation										
Blank										
Total Residual Chlorine	ND	10	ug/L							
LCS										
Total Residual Chlorine	1		mg/L	0.9960		100	85-115			
Batch CD51747 - General Preparation										
Blank										
Total Petroleum Hydrocarbon	ND	5	mg/L							
LCS										
Total Petroleum Hydrocarbon	18	5	mg/L	19.38		94	66-114			
Batch CD51802 - TCN Prep										
Blank										
Total Cyanide (LL)	ND	5.0	ug/L							
LCS										
Total Cyanide (LL)	22.0	5.0	ug/L	20.06		110	90-110			
LCS										
Total Cyanide (LL)	149	5.0	ug/L	150.4		99	90-110			
LCS Dup										
Total Cyanide (LL)	151	5.0	ug/L	150.4		100	90-110	0.9	20	
Batch CD51803 - General Preparation										
Blank										
Chloride	ND	0.5	mg/L							
LCS										
Chloride	2.5		mg/L	2.500		100	90-110			
Batch CD52012 - General Preparation										
Blank										
Phenols	ND	100	ug/L							
LCS										
Phenols	108	100	ug/L	100.0		108	80-120			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315 ESS Laboratory Work Order: 1504333

Quality Control Data

Analyte	Result	MRL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qualifier
Classical Chemistry										
Batch CD52012 - General Preparation										
LCS										
Phenols	970	100	ug/L	1000		97	80-120			
8011 1,2-Dibromoethane / 1,2-Dibromo-3-chloropropane										
Batch CD51626 - 504/8011										
Blank										
1,2-Dibromoethane	ND	0.015	ug/L							
Surrogate: Pentachloroethane	*0.211*		ug/L	*0.2000*		*106*	*30-150*			
LCS										
1,2-Dibromoethane	0.198	0.015	ug/L	0.2000		99	60-140			
Surrogate: Pentachloroethane	*0.149*		ug/L	*0.2000*		*75*	*30-150*			
LCS										
1,2-Dibromoethane	0.095	0.015	ug/L	0.08000		119	60-140			
Surrogate: Pentachloroethane	*0.0802*		ug/L	*0.08000*		*100*	*30-150*			

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315 ESS Laboratory Work Order: 1504333

Notes and Definitions

U	Analyte included in the analysis, but not detected
S+	Surrogate recovery(ies) above upper control limit (S+).
J	Reported between MDL and MRL
HT	The maximum holding time listed in 40 CFR Part 136 Table II for pH, Dissolved Oxygen, Sulfite and Residual Chlorine is fifteen minutes.
H	Estimated value. Sample hold times were exceeded (H).
DDT	DDT breakdown > 20%
D+	Relative percent difference for duplicate is outside of criteria (D+).
D	Diluted.
C+	Continuing Calibration recovery is above upper control limit (C+).
B+	Blank Spike recovery is above upper control limit (B+).
B	Present in Method Blank (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
[2C]	Result was taken from the second column. Dual column analysis.

CERTIFICATE OF ANALYSIS

Client Name: GZA GeoEnvironmental, Inc.
Client Project ID: NStar Station 315

ESS Laboratory Work Order: 1504333

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/find/labs/analytical/ESS.pdf

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/dhhs/mecdc/environmental-health/water/dwp-services/labcert/documents/AllLabs.xls

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

New Hampshire (NELAP accredited) Potable and Non Potable Water, Solid and Hazardous Waste: 2424
http://des.nh.gov/organization/divisions/water/dwgb/nhelap/index.htm

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

New Jersey (NELAP accredited) Non Potable Water, Solid and Hazardous Waste: RI006
http://datamine2.state.nj.us/DEP_OPRA/OpraMain/pi_main?mode=pi_by_site&sort_order=PI_NAMEA&Select+a+Site:=58715

United States Department of Agriculture Soil Permit: P330-12-00139

Pennsylvania: 68-01752
http://www.depweb.state.pa.us/portal/server.pt/community/labs/13780/laboratory_accreditation_program/590095

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: 15040333
Date Project Due: ~~4/20/2015~~ 4/21/15
Days For Project: 3 Day cmt 4/17/15

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: **4.4**		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	HCL
1	Yes	1 L Glass	4	NP
1	Yes	1 L Plastic	1	NP
1	Yes	250 ml Plastic	1	HNO3
1	Yes	250 ml Plastic	2	NaOH
1	Yes	40 ml - VOA	6	HCL

Completed By: _____ Date/Time: 4/15/15 1826
Reviewed By: _____ Date/Time: 4/15/15 1830

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

CHAIN OF CUSTODY

ESS LAB PROJECT ID: 1504333

Turn Time: ____ Standard Rush X Approved By: ____

Reporting Limits -

State where samples were collected: (MA) NH RI

Is this project for: **RGP**

Electonic Deliverable: Yes X No ____
Format: Excel X Access ____ PDF X Other ____

Project Manager: David E Leone
Company: GZA Geoenvironmental
Address: 249 Vanderbilt Ave
Norwood, MA 02062

Project #: 170789.30
Project Name: NSTAR Station 315
PO #:

ESS Lab Sample ID	Date	Collection Time	Grab -G Composite-C	Matrix	Sample Identification	# of Containers	RGP Metals	Chloride 300.0	Total Cyanide 4500 LL	TPH 1664	TSS 2540D	TRC 4500-CL E	Total Phenols 420.1	Tri Cr (Calc. MUST run T. Cr)	Hex Cr 7196A	RGP VOC Long List 8260	1,4-Dioxane 8270	EDB 8011	RGP SVOC Log List 8270-SIM	PCB 8082 LL	Comment #
1	4-14-15	1300	G	GW	NSTAR 315 RGP	18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	1,2
Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-____							4	1	5	3	1	1	3	-	1	2	1	2	1	1	
Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA							P	P	P	AG	P	P	AG	-	P	V	AG	V	AG	AG	

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No
Seals Intact ____ Yes ____ No NA: ✓
Cooler Temperature: 4.4°C Corrected 4/15/15

Sampled by : Chris Norman

Comments: 1) RGP Metals include Sb, As, Cd, Cu, Fe, Pb, Ni, Se, Ag and Zn by 6010/6020/7010 and Hg by 7470A
2) Parameters in **BOLD** have Short hold-time **PERMIT ATTACHED**

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	1630 4/14	Fedex	Fedex	4/15/15	1507
	4/15/15 1735		4/15/15 1846		

1846 M 4/16/15

Page 1 of 1

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CHAIN OF CUSTODY

ESS LAB PROJECT ID: 1504333

Turn Time: ____ Standard Rush X Approved By: ____

Reporting Limits -

State where samples were collected: (MA) NH RI

Is this project for: **RGP**

Electonic Deliverable: Yes X No ____
Format: Excel X Access ____ PDF X Other ____

Project Manager: David E Leone
Company: GZA Geoenvironmental
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Norwood, MA 02062

Project #: 170789.30
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1	4-14-15	1300	G	GW	NSTAR 315 RGP	18															1,2
Preservation Code: 1-NP, 2-HCl, 3-H2SO4, 4-HNO3, 5-NaOH, 6-MeOH, 7-Asorbic Acid, 8-ZnAct, 9-____							4	1	5	3	1	1	3	-	1	2	1	2	1	1	
Container Type: P-Poly G-Glass AG-Amber Glass S-Sterile V-VOA							P	P	P	AG	P	P	AG	-	P	V	AG	V	AG	AG	

Matrix: S-Soil SD-Solid D-Sludge WW-Wastewater GW-Groundwater SW-Surface Water DW-Drinking Water O-Oil W-Wipes F-Filter

Cooler Present ✓ Yes ____ No
Seals Intact ____ Yes ____ No NA: ✓
Cooler Temperature: 4.4°C Ice 4/15/15

Sampled by : Chris Norman

Comments: 1) RGP Metals include Sb, As, Cd, Cu, Fe, Pb, Ni, Se, Ag and Zn by 6010/6020/7010 and Hg by 7470A
2) Parameters in **BOLD** have Short hold-time **PERMIT ATTACHED**

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	1630 4/14	Fedex	Fedex	9/15/15	1507
	4/15/15 1735				

1846 4/16/15

Page 1 of 1

Enter your transmittal number → X265917 (Transmittal Number)

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

Massachusetts Department of Environmental Protection

Transmittal Form for Permit Application and Payment

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

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

3. Three copies of this form will be needed.

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

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

MassDEP
P.O. Box 4062
Boston, MA
02211

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

A. Permit Information

BRP WM 12 (substitue EPA RGP NOI Form) — 1. Permit Code: 7 or 8 character code from permit instructions

Remediation & Misc. Contaminated Sites GP — 2. Name of Permit Category

Construction dewatering (temporary) — 3. Type of Project or Activity

B. Applicant Information – Firm or Individual

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

2. **Last Name** of Individual | 3. **First Name** of Individual | 4. MI

One NSTAR Way — 5. Street Address

Westwood	MA	02090	339-987-7029	
6. City/Town	7. State	8. Zip Code	9. Telephone #	10. Ext. #

Michael Zylich — 11. Contact Person

Michael.Zylich@eversource.com — 12. e-mail address (optional)

C. Facility, Site or Individual Requiring Approval

Station 315 — 1. Name of Facility, Site Or Individual

40 Electric Avenue — 2. Street Address

Brighton	MA	02090		
3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #

8. DEP Facility Number (if Known) | 9. Federal I.D. Number (if Known) | 10. BWSC Tracking # (if Known)

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

GZA GeoEnvironmental — 1. Name of Firm Or Individual

249 Vanderbilt Avenue — 2. Address

Norwood	MA	02062	781-278-5802	
3. City/Town	4. State	5. Zip Code	6. Telephone #	7. Ext. #

Michele Simoneaux — 8. Contact Person

9. LSP Number (BWSC Permits only)

E. Permit - Project Coordination

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

EOEA File Number

F. Amount Due

DEP Use Only

Permit No:

Rec'd Date:

Reviewer:

Special Provisions:

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

262752	$950	May 1, 2015
Check Number	Dollar Amount	Date