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October 10, 2005

US Environmental Protection Agency
RPG-NOC Processing
Municipal Assistance Unit (CMU)
One Congress Street, Suite 1100
Boston, MA 02114-2023

**Ref: NSTAR-Kendall Substation, NOI for Coverage under the Remediation
General Permit (RPG) for Massachusetts**

Dear Sir or Madam,

On behalf of Boston Edison Company d/b/a NSTAR Electric & Gas Corp., TRC is pleased to submit the attached National Pollutant Discharge Elimination System (NPDES) Notice of Intent (NOI) for coverage under the Remediation General Permit (RGP) for the NSTAR-Kendall Substation Project. In addition to the application form, we have attached a site location map, project description and supporting groundwater analytical data. Since March 2005, treated dewatering effluent from construction activities has been discharged to the Broad Canal/Charles River through an existing storm water collection and conveyance system operated and maintained by Lyme Properties. The discharge was authorized under a NPDES exclusion letter (MA-05I-012).

With release of the Remediation General Permit (RGP), existing dischargers operating under an exclusion letter are required to seek coverage under the RGP or an individual NPDES discharge permit. The NSTAR-Kendall Substation Project Team has elected to seek coverage under the RGP.

The treatment system at the site is designed to handle up to 50 gallons per minute (gpm) of dewatering effluent, but has periodically operated at rates ranging from 10 gpm to 25 gpm, when required. Based on operating experience, we anticipate that the dewatering system will be required periodically throughout the fall to facilitate installation of new duct banks to interconnect the substation with the local electrical grid. All ongoing construction activities will be limited to the Mirant-Kendall property. To date, monitoring results indicate that the treatment system is capable of efficiently managing dewatering effluent without adversely impacting water quality in the Broad Canal or Charles River.

Your assistance in processing this application is greatly appreciated. If you have any questions or would like additional information please feel free to call at your earliest

convenience. I may be reached at (978) 656-3570 or you may contact Ms. Dot McGlincy, TRC's Soils Manager, at (978) 656-3659.

Sincerely,

A handwritten signature in black ink, appearing to read "David Schafer". The signature is fluid and cursive, with the first name "David" and last name "Schafer" clearly distinguishable.

David Schafer, PE
TRC Environmental Corp.

cc: Beverly Schultz/NSTAR
Daniel Watton/NSTAR
Carl Gustenhoven/Bond Brothers
Dot McGlincy/TRC'

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

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

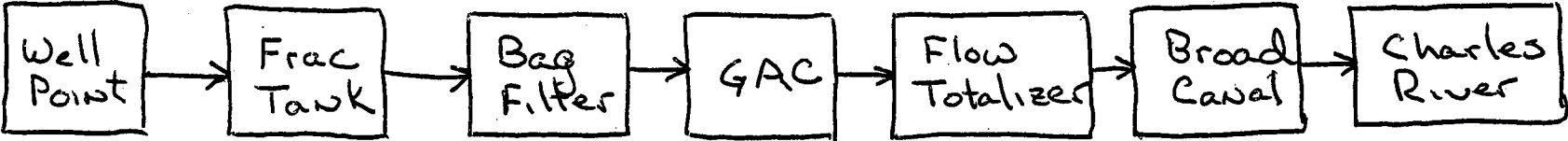
a) Name of facility/site: NSTAR - Kendall Substation		Facility/site address: NSTAR - Kendall Substation	
Location of facility/site: longitude: latitude:		Facility SIC code(s):	Street: 265 First Street
b) Name of facility/site owner: NSTAR Elec. & Gas Corp.		Town: Cambridge	
Email address of owner: Daniel.Watton@nstaronline.com		State: MA	Zip: 02142
Telephone no.of facility/site owner: 781-441-3805		County: Middlesex	
Fax no. of facility/site owner: 781-441-3193		Owner is (check one): 1. Federal 2. State/Tribal	
Address of owner (if different from site): NSTAR		3. Private X 4. other, if so, describe:	
Street: One NSTAR Way			
Town: Westwood		State: MA	Zip: 02090-9230
		County: Norfolk	
c) Legal name of operator: Bond Brothers		Operator telephone no: 617-387-3400	
		Operator fax no.: 617-389-1412	Operator email: cgustenhoven@bondbros.com
Operator contact name and title: Mr. Carl Gustenhoven, Project Manager			
Address of operator (if different from owner): Bond Brothers		Street: 145 Spring Street	
Town: Everett		State: MA	Zip: 02149
		County: Middlesex	
d) Check "yes" or "no" for the following:			
1. Has a prior NPDES permit exclusion been granted for the discharge? Yes X No, if "yes," number: MA-05I-012			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes No X, if "yes," date and tracking #:			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes X No			
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes No X			

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ___ No <u>X</u> If "yes," please list: 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y ___ N <u>X</u> , if Y, number: 2. phase I or II construction storm water general permit? Y ___ N <u>X</u> , if Y, number: 3. individual NPDES permit? Y ___ N <u>X</u> , if Y, number: 4. any other water quality related permit? Y ___ N <u>X</u> , if Y, number:
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2. Discharge information. Please provide information about the discharge, (attaching additional sheets as needed) including:

a) Describe the discharge activities for which the owner/applicant is seeking coverage: See Attachment A - Project Desc,

b) Provide the following information about each discharge:	1) Number of discharge points: <u>1</u>	2) What is the maximum and average flow rate of discharge (in cubic feet per second, ft3/s)? Max. flow <u>0.11 cfs</u> Average flow <u>0.06 cfs</u> Is maximum flow a design value? Y <u>X</u> N ___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. <u>pt 1: long: 71.0821W lat: 42.3627 N</u>
3) Latitude and longitude of each discharge within 100 feet: pt.1:long. ___ lat. ___; pt.2: long. ___ lat. ___; pt.3: long. ___ lat. ___; pt.4:long. ___ lat. ___; pt.5: long. ___ lat. ___; pt.6:long. ___ lat. ___; pt.7: long. ___ lat. ___; pt.8:long. ___ lat. ___; etc.		
4) If hydrostatic testing, total volume of the discharge (gals): <u>NA</u>		5) Is the discharge intermittent <u>X</u> or seasonal ___? Is discharge ongoing Yes <u>X</u> No ___?
c) Expected dates of discharge (mm/dd/yy): start <u>10/10/05</u> end <u>12/31/05</u>		
d) Please attach a line drawing or flow schematic showing water flow through the facility including: 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).		



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

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

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

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids		X	10	grab	SM2540	10,000	160,000	44	32,500	16
2. Total Residual Chlorine	X		1	"	8167	162	ND		ND	
3. Total Petroleum Hydrocarbons		X	10	"	GC-FID	350	2,100	0.57	1,300	0.37
4. Cyanide	X		1	"	335.2	20	ND		ND	
5. Benzene		X	9	"	8260B	5	690	0.19	310	0.085
6. Toluene		X	6	"	"	5	23	0.006	12	0.003
7. Ethylbenzene		X	10	"	"	5	43	0.012	17	0.005
8. (m,p,o) Xylenes		X	7	"	"	5	27	0.007	14	0.004
9. Total BTEX ⁴		X	10	"	"	5	766	0.21	313	0.085

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X		2	grab	8260B	5/10	ND		ND	
26. 1,1,2 Trichloroethane	X		2	"	"	5/10	ND		ND	
27. Trichloroethylene	X		2	"	"	5/10	ND		ND	
28. Vinyl Chloride	X		2	"	"	2/10	ND		ND	
29. Acetone	X		2	"	"	50/200	ND		ND	
30. 1,4 Dioxane	X		1	"	"	10,000	ND		ND	
31. Total Phenols	X		2	"	8270C	0.25/5	ND		ND	
32. Pentachlorophenol	X		2	"	"	1/5	ND		ND	
33. Total Phthalates ⁶ (Phthalate esters)	X		2	"	"	2/5	ND		ND	
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X		2	"	"	2/5	ND		ND	
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		X	2	"	"		6.66	0.002	6.66	0.002
a. Benzo(a) Anthracene		X	2	"	"	0.5/5	1.37	0.0004	1.37	0.0004
b. Benzo(a) Pyrene		X	2	"	"	0.2/5	1.44	0.0004	1.44	0.0004
c. Benzo(b)Fluoranthene		X	2	"	"	0.5/5	1.69	0.0005	1.69	0.0005
d. Benzo(k) Fluoranthene	X		2	"	"	1.0/5	ND		ND	
e. Chrysene		X	2	"	"	0.5/5	1.38	0.0004	1.38	0.0004

⁶The sum of individual phthalate compounds.

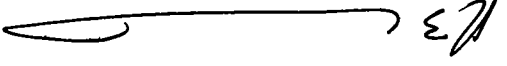
PARAMETER	Believe Absent	Believe Present	# of Samples (1 min- imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X		2	grab	8270C	0.5/5	ND		ND	
g. Indeno(1,2,3-cd) Pyrene		X	1	"	"	0.5	0.78	0.0002	0.78	0.0002
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		X	10	"	"	10	144	0.039	86	0.023
h. Acenaphthene		X	10	"	"	10	44	0.012	33	0.009
i. Acenaphthylene		X	1	"	"	10	1.2	0.0003	1.2	0.0003
j. Anthracene		X	10	"	"	10	4	0.001	2.7	0.0007
k. Benzo(ghi) Perylene		X	1	"	"	10	1.0	0.0003	1.0	0.0003
l. Fluoranthene		X	7	"	"	10	4.4	0.001	3.1	0.0008
m. Fluorene		X	10	"	"	10	22	0.006	14.4	0.004
n. Naphthalene-		X	10	"	"	10	49	0.013	17.2	0.005
o. Phenanthrene		X	10	"	"	10	14	0.004	10.3	0.003
p. Pyrene		X	7	"	"	10	4.7	0.001	2.6	0.0007
37. Total Polychlorinated Biphenyls (PCBs)	X		1	"	8082	0.2	ND		ND	
38. Antimony	X		1	"	200.7	30	ND		ND	
39. Arsenic	X		2	"	6010 B	10/50	ND		ND	
40. Cadmium	X		2	"	6010 B	5	ND		ND	
41. Chromium III	X		1	Calc.	Calc.	-	ND		ND	
42. Chromium VI	X		1	grab	3500	321	ND		ND	

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper		X	1	grab	200.7	8	16	0.004	16	0.004
44. Lead		X	3	"	6010 B	5	200	0.054	125	0.054
45. Mercury		X	2	"	7470A	0.2	1.2	0.0003	1.0	0.0003
46. Nickel		X	1	"	200.7	10	23	0.006	23	0.006
47. Selenium	X		1	"	6010 B	50	ND		ND	
48. Silver	X		1	"	6010 B	7	ND		ND	
49. Zinc		X	1	"	200.7	100	213	0.058	213	0.058
50. Iron		X	1	"	200.7	50	3640	0.99	3640	0.99
Other (describe): Total Chromium	X		3	"	6010 B	10/60	ND		ND	

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

Step 1: Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y <u>X</u> N	If yes, which metals? <u>Copper, lead, mercury, zinc, iron</u>
Step 2: For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: <u>Copper, lead, mercury, zinc, iron</u> DF: <u>157</u>	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 <u>X</u> N If "Yes," list which metals: <u>lead</u>

4. Treatment system information. Please describe the treatment system using separate sheets as necessary, including:				
a) A description of the treatment system, including a schematic of the proposed or existing treatment system:				
b) Identify each applicable treatment unit (check all that apply):				
Frac. tank ☒	Air stripper	Oil/water separator	Equalization tanks	Bag filter ☒
Other (please describe): <u>Flow Totalizer</u>				
c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) of the treatment system:				
Average flow rate of discharge <u>10 gpm</u> Maximum flow rate of treatment system <u>25 gpm</u> Design flow rate of treatment system <u>50 gpm</u>				
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): <u>None</u>				
5. Receiving surface water(s). Please provide information about the receiving water(s), using separate sheets as necessary:				
a) Identify the discharge pathway:				
Direct ☐	Within facility ☐	Storm drain ☒	River/brook ☐	Wetlands ☐
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:				
<u>See Attachment A and Figure 1</u>				
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 discharges, indicate the location of the discharge 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				
<u>Class B</u>				
e) Provide the reported or calculated seven day year low flow (7Q10) of the receiving water				
<u>17.2</u> cfs				
Please attach any calculation sheets used to support stream flow and dilution calculations.				
<u>See Attachment A</u>				
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ☒ No ☐ If yes, for which pollutant(s)?				
Is there a TMDL? Yes ☐ No ☒ If yes, for which pollutant(s)?				
<u>See Attachment A</u>				

Facility/Site Name:	NOSTAR - Kendal II Substation		
Operator signature:			
Title:	Cliff Estabrook		
Date:	10/14/05		

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.

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

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

7. Supplemental information: (See Attachment C)

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☒ No ☐	Has any consultation with the federal services been completed? Yes ☒ No ☐	or is consultation underway? Yes ☒ No ☐
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service? (check one):		
a "no jeopardy" opinion? ☒ or written concurrence ☐ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?		
b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge? Yes ☒ No ☐		
Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☒ No ☐		

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

ATTACHMENT A

NSTAR-Kendall Substation

Project Description

NSTAR Electric & Gas Corporation (NSTAR) is currently constructing a new electric substation on Mirant Kendall's property in Cambridge, MA. The site is located at 265 First Avenue. A site location map is attached as Figure 1. Since March 2005, treated dewatering effluent from construction activities has been discharged to the Broad Canal/Charles River through an existing storm water collection and conveyance system. The discharge was authorized under a National Pollutant Discharge Elimination System (NPDES) exclusion letter (MA-05I-012). Based on observed conditions, the dewatering rate is expected to range between 10 gallons per minute (gpm) and 50 gpm.

With release of the Remediation General Permit (RGP), existing dischargers operating under an exclusion letter are required to seek coverage under the RGP or an individual NPDES discharge permit. The NSTAR-Kendall Substation project team has elected to seek coverage under the RGP.

Groundwater quality data for the site are available from grab samples collected by Lightship Engineering in May 2004, samples collected by TRC in February 2005 and exclusion letter compliance monitoring samples collected by TRC from March 2005 through July 2005 (See Attachment B).

Because of the potential presence of low levels of heavy metals, volatile organic compounds, and/or semi-volatile organic compounds, dewatering effluent is routed through a portable treatment system prior to discharge. The treatment system at the site is designed to handle up to 50 gallons per minute (gpm) of dewatering effluent, but has periodically operated at rates ranging from 10 gpm to 25 gpm on an as needed basis. Based on operating experience, NSTAR anticipates that the dewatering system will be required periodically throughout the fall to facilitate installation of new duct banks at the Mirant Kendall property to interconnect the substation with the local electrical grid.

The treatment train consists of the following treatment units:

- 10,000 gallon Frac Tank with over/under weirs;
- Bag Filters (35 micron to 50 micron);
- Granular Activated Carbon (GAC); and
- Flow totalizer.

The frac tank is used to remove settleable suspended solids and trap any floatable oil or grease that may be present. The bag filters, installed between the frac tank and GAC unit, provide for additional suspended solids removal prior to GAC treatment. The GAC treatment tank, containing 1000 pounds of activated carbon, is used to polish the effluent

prior to discharge. A flow totalizer is used to record the volume of dewatering effluent that passes through the treatment system.

Effluent from the treatment train is directed to a catch basin for ultimate disposal in the Broad Canal/Charles River (Outfall 001). NSTAR will comply with sampling, monitoring and reporting requirements contained in EPA's RGP. Compliance monitoring results under EPA's exclusion letter indicate that the proposed treatment train is capable of efficiently managing dewatering effluent without adversely impacting water quality in the Broad Canal or Charles River (See Attachment B).

Dilution Factor

The dilution factor for metals was calculated using the formula below:

$$DF = (Qd + Qs) / Qd$$

Where:

- DF = dilution factor
- Qd = Maximum flow rate of discharge (cfs)
- Qs = Receiving water 7Q10 flow (cfs)

$$DF = (0.11 \text{ cfs} + 17.2 \text{ cfs}) / 0.11 \text{ cfs}$$

$$DF = 157$$

The 7Q10 flow for the Charles River was determined using USGS gaging station data at the Watertown Dam. The analysis was performed based on daily stream flow data for the period 1960 through 2004 using EPA's DFLOW 3 computer program.

Receiving Surface Waters

Effluent from the treatment system is directed into a catch basin, which drains into the head end of the Broad Canal/Charles River (See Figure 1). The storm water drainage system is operated and maintained by Lyme Properties.

The Charles River from the Watertown Dam to the Museum of Science is included on the Massachusetts 303d list for the following contaminants:

- Priority Organics
- Metals
- Organic Enrichment/Low DO
- Pathogens
- Oil and Grease

A TMDL for the Charles River has not been published.

Threatened and Endangered Species

Review of the Massachusetts Natural Heritage Atlas, 11th Edition indicates there are no priority habitats of rare species or estimated habitats of rare wildlife or certified vernal pools in proximity to the site (see Figure 2). In addition, the Charles River is not known to contain any of the species of concern identified under the RGP (i.e., the shortnose sturgeon, the dwarf wedge mussel, the bog turtle or the northern redbelly cooter).

Massachusetts Historical Commission

A letter requesting input from the Massachusetts Historical Commission regarding potential impacts on historic properties associated with the discharge has been submitted (See Attachment C).



Base map consists of USGS 'Boston North' and 'Boston South' topographic quadrangles.

0 1,000 2,000 Feet

2

TRC

Boott Mills South
Foot of John Street
Lowell, MA 01852
978-970-5600

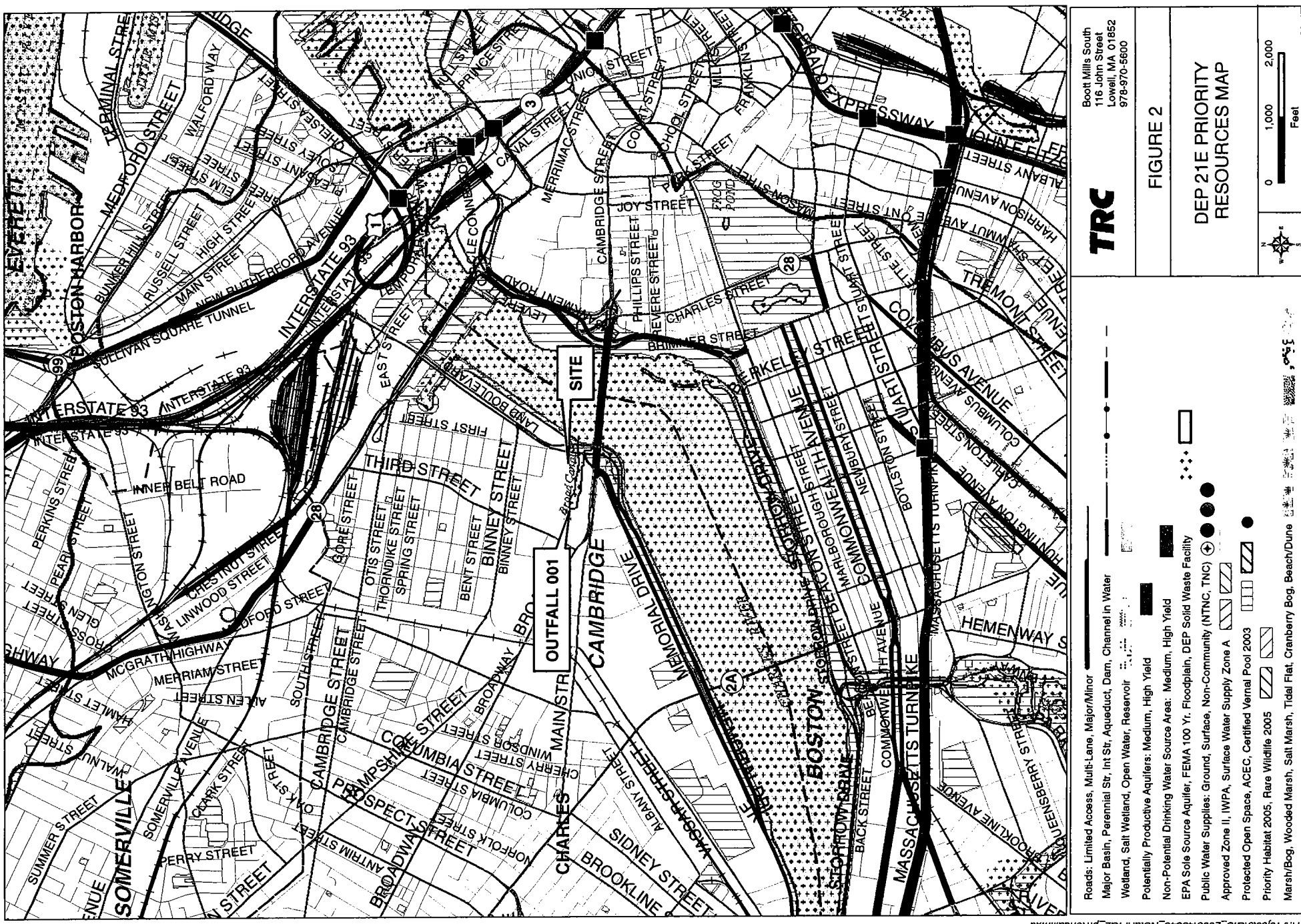
FIGURE 1

SITE LOCATION MAP

KENDALL STATION

CAMBRIDGE, MASSACHUSETTS

R:\Projects\GIS_2005\temp\fig1_kendall.mxd



ATTACHMENT B
Sampling and Analytical Data

Prepared by TRC Environmental, Lowell, MA												
Analyte	Date	03/09/05		03/1		05/12/05		07/20/05		NPDES Discharge Standards		
		Influent	Effluent	Influent	Effluent	Influent	Effluent					
Total suspended solids (TSS)	mg/L	14	27	ND		16	ND	15	ND	30		
Group I Carcinogens												
Benzo(a)Anthracene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Benzo(a)Pyrene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Benzo(b)Fluoranthene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Benzo(k)Fluoranthene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Chrysene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Dibenz(a,h)Anthracene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Indeno(1,2,3-cd)Pyrene	ug/L	ND	ND	ND		ND	ND	ND	ND	10		
Group II PAHs												
Acenaphthene	ug/L	31	ND	31		44	1.0	33	ND	100		
Acenaphthylene	ug/L	ND	ND	ND		ND	ND	ND	ND	100		
Anthracene	ug/L	2.6	J	2.3	J	4.0	ND	3.7	ND	100		
Benzo(ghi)perylene	ug/L	ND	ND	ND		ND	ND	ND	ND	100		
Fluoranthene	ug/L	2.7	J	2.9	J	4.4	ND	4.4	ND	100		
Fluorene	ug/L	14	ND	14		22	ND	17	ND	100		
Naphthalene	ug/L	32	ND	16		3.6	ND	6.4	ND	100		
Phenanthrene	ug/L	11	ND	8.3	J	12	ND	13	ND	20		
Pyrene	ug/L	2.2	J	ND		2.7	ND	2.7	ND	100		
Volatiles												
Benzene	ug/L	690	ND	480		73	ND	ND	ND	5		
Toluene	ug/L	19	ND	23		ND	ND	ND	ND	-		
Ethylbenzene	ug/L	35	ND	22		11	ND	6.4	ND	-		
m,p-xylene	ug/L	14	ND	12		2.6	ND	1.7	ND	-		
o-xylene	ug/L	8.3	ND	6.9		4.1	ND	4.9	ND	-		
Xylene	ug/L	22	ND	19		6.7	ND	6.6	ND	-		
Total BTEX	ug/L	766.3	ND	543.9		96.7	ND	13	ND	100		
TPH	mg/L	1.5	ND	1.4		1.7	1.7	1.2	ND	5		
Metals												
Lead (Total Recoverable Metal)	ug/L	25	ND	ND		ND	ND	ND	ND	30		
Mercury (Total Recoverable Metal)	ug/L	ND	ND	ND		ND	ND	ND	ND	1		
Notes: J = Analyte detected below quantitation limits. ND = Not detected												



LSP SERVICES • CIVIL ENGINEERING • ASSESSMENT • PERMITTING • REMEDIATION • CONSTRUCTION MANAGEMENT

FACSIMILE TRANSMITTAL SHEET

Date:	6/1/04	Pages:	1 of 14
To:	NSTAR	From:	Lightship Engineering, LLC
	Dan Watton		John Mesheau
Phone:	781-441-3805	Phone:	508-830-3344
Fax:	781-441-3193	Fax:	508-830-3360
Subject:	Kendall Station Groundwater Sampling		

Dan:

Attached are the results for the groundwater waste characterization sample collected on May 14, 2004 at the Mirant-Kendall Generation Station. Total petroleum hydrocarbons ("TPH") was the only analyte detected above the Reportable Concentrations for groundwater classified as GW-2 ("RCGW-2"). TPH was detected at a concentration of 4.9 milligrams per liter ("ppm") which is above the Commonwealth of Massachusetts GW-1 and GW-2 Groundwater Cleanup Standard but below the GW-3 Groundwater Cleanup Standard. If you have any questions of comments please contact either Michael Pierdinock or me at (508) 830-3344, extensions 110 or 140, respectively.

Sincerely,

Lightship Engineering

John Mesheau, P.E., CHMM
Project Engineer
Pager: 781-458-4110
Cell: 617-291-8934

This message is intended only for the designated recipient(s). It may contain confidential or proprietary information and may be subject to the attorney-client privilege or other confidentiality protections. If you are not a designated recipient, you may not review, copy or distribute this message. If you receive this in error, please notify the sender by phone to arrange for the destruction or return of the original document to Lightship Engineering, LLC.

P:\Projects\500 - NSTAR\500.50 - Kendall Soil Gas Sampling\2004\04docs\0601 Watton fax.doc
36 CORDAGE PARK CIRCLE, SUITE 312 - PLYMOUTH, MASSACHUSETTS 02360 • (508) 830-3344 • FAX (508) 830-3360
www.lightshipengineering.com

GROUNDWATER ANALYTICAL

Groundwater Analytical, Inc.
P.O. Box 1200
228 Main Street
Buzzards Bay, MA 02532

Telephone (508) 759-4441
FAX (508) 759-4475
www.groundwateranalytical.com

May 28, 2004

Mr. John Mesheau
Lightship Engineering
36 Cordage Park Circle
Plymouth, MA 02360

LABORATORY REPORT

Project: NSTAR-Kendall/500.50.1
Lab ID: 72707
Received: 05-14-04

Dear John:

Enclosed are the analytical results for the above referenced project. The project was processed for Standard turnaround.

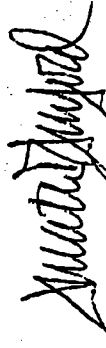
This letter authorizes the release of the analytical results, and should be considered a part of this report. This report contains a sample receipt report detailing the samples received, a project narrative indicating project changes and non-conformances, a quality control report, and a statement of our state certifications.

The analytical results contained in this report meet all applicable NELAC standards, except as may be specifically noted, or described in the project narrative. This report may only be used or reproduced in its entirety.

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

Should you have any questions concerning this report, please do not hesitate to contact me.

Sincerely,



Jonathan R. Sanford
President

JRS/kal
Enclosures



Sample Receipt Report

Project: NSTAR-Kendall/500.50.1

Client: Lightship Engineering

Lab ID: 72707

Delivery: GWA Courier

Airbill: n/a

Lab Receipt: 05-14-04

Temperature: 3.7°C

Chain of Custody: Present

Custody Seal(s): n/a

Lab ID	Field ID	Sample	Matrix	Container	Vendor	QC Lot	Preserv	QC Lot	Preserv	Ship
72707-1	WC-GW1	Aqueous	5/14/04 9:58	EPA 8260B TCL Volatile Organics						
Con ID	Container	40 mL VOA Vial	Proline	BX12354	HCl	R-3901E	04-29-04	n/a		
C403793										
C403781										
C403722										

Lab ID	Field ID	Sample	Matrix	Container	Vendor	QC Lot	Preserv	QC Lot	Preserv	Ship
72707-2	WC-GW1	Aqueous	5/14/04 9:58	EPA 8270C Semivolatile Organics						
Con ID	Container	1 L Amber Glass	Proline	BX11931	None	n/a	n/a	n/a		
C497983										
C497978										

Lab ID	Field ID	Sample	Matrix	Container	Vendor	QC Lot	Preserv	QC Lot	Preserv	Ship
72707-3	WC-GW1	Aqueous	5/14/04 9:58	EPA 8082 PCBs						
Con ID	Container	1 L Amber Glass	Proline	BX11931	None	n/a	n/a	n/a		
C497979										
C497982										

Lab ID	Field ID	Sample	Matrix	Container	Vendor	QC Lot	Preserv	QC Lot	Preserv	Ship
72707-4	WC-GW1	Aqueous	5/14/04 9:58	EPA 9040B Corrosivity						
Con ID	Container	500 mL Plastic	Proline	BX5487	None	n/a	n/a	10-10-02		
C274209										
C214782										

Lab ID	Field ID	Sample	Matrix	Container	Vendor	QC Lot	Preserv	QC Lot	Preserv	Ship
72707-5	WC-GW1	Aqueous	5/14/04 9:58	TPH by GC ASTM D3320-09 Mod						
Con ID	Container	1 L Amber Glass	Proline	BX12271	H2SO4	n/a	n/a	n/a		
C436615										
C436610										

Lab ID	Field ID	Sample	Matrix	Container	Vendor	QC Lot	Preserv	QC Lot	Preserv	Ship
72707-6	WC-GW1	Aqueous	5/14/04 9:58	EPA 6010B/740A 5 RCRA Metals						
Con ID	Container	250 mL Plastic	Proline	BX5679	HNO3	R-3380E	11-08-02	11-20-02		
C261604										
C316747										



Lab ID: 72707
Received: 05-14-04 17:40

Groundwater Analytical, Inc., P.O. Box 1200, 228 Main Street, Buzzards Bay, MA 02532

EPA Method 8260B
Volatile Organics by GC/MS

Field ID: WC-GW1
Project: Client: LIGHTSHIP
Laboratory ID: 72707-01
Sampled:
Received:
Analyzed: 05-21-04 17:36
Analyst: MJB

Matrix: Aqueous
Container: 40 mL VOA Vial
Preservation: HCl/Cool
QC Batch ID: VM4-2905-W
Instrument ID: MS-4 HP 6890
Sample Volume: 25 mL
Dilution Factor: 20

Page 1 of 2

CAS Number	Analyte	Concentration	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL	ug/L	10
74-87-3	Chloromethane	BRL	ug/L	10
75-01-4	Vinyl Chloride	BRL	ug/L	10
74-83-9	Bromomethane	BRL	ug/L	10
75-00-3	Chloroethane	BRL	ug/L	10
75-89-4	Trichlorofluoromethane	BRL	ug/L	10
60-29-7	Diethyl Ether	BRL	ug/L	40
75-36-4	1,1-Dichloroethane	BRL	ug/L	10
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL	ug/L	10
67-64-1	Acetone	BRL	ug/L	100
75-15-0	Carbon Disulfide	BRL	ug/L	200
75-09-2	Methylene Chloride	BRL	ug/L	100
156-60-5	trans-1,2-Dichloroethene	BRL	ug/L	50
1634-04-4	Methyl tert-butyl Ether (MTBE)	BRL	ug/L	10
75-34-3	1,1-Dichloroethane	BRL	ug/L	10
594-20-7	2,2-Dichloropropane	BRL	ug/L	10
156-59-2	cis-1,2-Dichloroethene	BRL	ug/L	10
78-93-3	2-Butanone (MEK)	BRL	ug/L	100
74-97-5	Bromochloromethane	BRL	ug/L	10
109-99-9	Tetrahydrofuran (THF)	BRL	ug/L	100
67-66-3	Chloroform	BRL	ug/L	10
71-55-6	1,1,1-Trichloroethane	BRL	ug/L	10
56-23-5	Carbon Tetrachloride	BRL	ug/L	10
563-58-6	1,1-Dichloropropene	BRL	ug/L	10
71-43-2	Benzene	110	ug/L	10
107-06-2	1,2-Dichloroethane	BRL	ug/L	10
79-01-6	Trichloroethene	BRL	ug/L	10
78-87-5	1,2-Dichloropropane	BRL	ug/L	10
74-95-3	Dibromomethane	BRL	ug/L	10
75-27-4	Bromodichloromethane	BRL	ug/L	10
123-91-1	1,4-Dioxane	BRL	ug/L	10
10061-01-5	cis-1,3-Dichloropropene	BRL	ug/L	10000
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL	ug/L	10
108-88-3	Toluene	BRL	ug/L	100
10061-02-6	trans-1,3-Dichloropropene	BRL	ug/L	10
79-00-5	1,1,2-Trichloroethane	BRL	ug/L	10
127-18-4	Tetrachloroethene	BRL	ug/L	10
142-28-9	1,3-Dichloropropane	BRL	ug/L	10
591-78-6	2-Hexanone	BRL	ug/L	10
124-48-1	Dibromochloromethane	BRL	ug/L	100
106-93-4	1,2-Dibromoethane (EDB)	BRL	ug/L	10
108-90-7	Chlorobenzene	BRL	ug/L	10
630-20-6	1,1,1,2-Tetrachloroethane	BRL	ug/L	10
100-41-4	Ethylbenzene	BRL	ug/L	10
106-39-3/106-42-3	meta-Xylene and para-Xylene	BRL	ug/L	10
95-47-6	ortho-Xylene	BRL	ug/L	10

EPA Method 8260B (Continued)
Volatile Organics by GC/MS

Field ID: WC-GW1
Project: LIGHTSHIP
Client: MJB
Laboratory ID: 01-00-00 00:00
Sampled: 01-00-00 00:00
Received: 05-21-04 17:36
Analyzed: MJB
Analyst: MJB

Matrix: Aqueous
Container: 40 mL VOA Vial
Preservation: HCl/Cool
QC Batch ID: VM4-2905-W
Instrument ID: MS-4 HP 8890
Sample Volume: 25 mL
Dilution Factor: 20

Page: 2 of 2

CAS Number	Analyte	Concentration	Units	Reporting Unit
100-42-5	Styrene	BRL	ug/L	10
75-25-2	Bromobenzene	BRL	ug/L	10
98-82-8	Isopropylbenzene	21	ug/L	10
108-86-1	Bromobenzene	BRL	ug/L	10
79-34-5	1,1,2,2-Tetrachloroethane	BRL	ug/L	10
96-18-4	1,2,3-Trichloropropane	BRL	ug/L	10
103-65-1	n-Propylbenzene	BRL	ug/L	10
95-49-8	2-Chlorotoluene	BRL	ug/L	10
108-67-8	1,3,5-Trimethylbenzene	BRL	ug/L	10
106-43-4	4-Chlorotoluene	BRL	ug/L	10
98-06-6	tert-Butylbenzene	BRL	ug/L	10
95-63-6	1,2,4-Trimethylbenzene	BRL	ug/L	10
135-98-8	sec-Butylbenzene	BRL	ug/L	10
541-73-1	1,3-Dichlorobenzene	BRL	ug/L	10
99-87-6	4-Isopropyltoluene	BRL	ug/L	10
106-46-7	1,4-Dichlorobenzene	BRL	ug/L	10
95-50-1	1,2-Dichlorobenzene	BRL	ug/L	10
104-51-8	n-Butylbenzene	BRL	ug/L	10
96-12-8	1,2-Dibromo-3-chloropropane	BRL	ug/L	10
120-82-1	1,2,4-Trichlorobenzene	BRL	ug/L	10
87-68-3	Hexachlorobutadiene	22	ug/L	10
91-20-3	Napthalene	BRL	ug/L	10
87-61-6	1,2,3-Trichlorobenzene	BRL	ug/L	10
75-55-0	tert-Butyl Alcohol (TBA)	BRL	ug/L	400
108-20-3	Di-Isopropyl Ether (DIPE)	BRL	ug/L	10
637-92-3	Ethyl tert-butyl Ether (ETBE)	BRL	ug/L	10
994-05-8	tert-Amyl Methyl Ether (TAME)	BRL	ug/L	10
QC Surrogate Compound				
Dibromofluoromethane	Spiked	Recovery	QC Units	
	10	9.7	97 %	70 - 130 %
1,2-Dichloroethane-d4	10	8.8	88 %	70 - 130 %
Toluene-d6	10	9.5	95 %	70 - 130 %
4-Bromofluorobenzene	10	11	113 %	70 - 130 %

Reported by: MJB 5/1/04

Reviewed by: VRC 6/1/04

File number: D41493.D

EPA Method 8270C
Semivolatile Organics by GC/MS

Field ID: WC-GW1

Project: NSTAR-Kendall/500.50.1

Client: Lightship Engineering

Laboratory ID: 72707-02

Sampled: 05-14-04 09:58

Received: 05-14-04 17:40

Extracted: 05-20-04 18:00

Analyzed: 05-26-04 13:49

Analyst: JJT

Matrix: Aqueous

Container: 1 L Amber Glass

Preservation: Cool

QC Batch ID: SV-1497-F

Instrument ID: MS-3 HP 5890

Sample Volume: 1000 mL

Final Volume: 1 mL

Dilution Factor: 1

CAS Number	Analyte	Concentration	Notes	Units
62-75-9	N-Nitrosodimethylamine	BRL		ug/L
110-86-1	Pyridine	BRL		ug/L
108-95-2	Phenol	BRL		ug/L
62-53-3	Aniline	BRL		ug/L
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/L
95-57-8	2-Chlorophenol	BRL		ug/L
541-73-1	1,3-Dichlorobenzene	BRL		ug/L
106-46-7	1,4-Dichlorobenzene	BRL		ug/L
100-51-6	Benzyl Alcohol	BRL		ug/L
95-50-1	1,2-Dichlorobenzene	BRL		ug/L
95-48-7	2-Methylphenol	BRL		ug/L
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/L
106-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/L
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/L
98-86-2	Acetophenone	BRL		ug/L
67-72-1	Hexachloroethane	BRL		ug/L
98-95-3	Nitrobenzene	BRL		ug/L
78-59-1	Isophorone	BRL		ug/L
88-75-5	2-Nitrophenol	BRL		ug/L
105-67-9	2,4-Dimethylphenol	BRL		ug/L
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/L
120-83-2	2,4-Dichlorophenol	BRL		ug/L
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L
91-20-3	Naphthalene	8		ug/L
106-47-8	4-Chloroaniline	BRL		ug/L
87-68-3	Hexachlorobutadiene	BRL		ug/L
59-50-7	4-Chloro-3-methylphenol	BRL		ug/L
91-57-6	2-Methylnaphthalene	BRL		ug/L
77-47-4	Hexachlorocyclopentadiene	BRL		ug/L
88-06-2	2,4,6-Trichlorophenol	BRL		ug/L
95-95-4	2,4,5-Trichlorophenol	BRL		ug/L
91-58-7	2-Chloronaphthalene	BRL		ug/L
88-74-4	2-Nitroaniline	BRL		ug/L
100-25-4	1,4-Dinitrobenzene	BRL		ug/L
131-11-3	Dimethyl phthalate	BRL		ug/L
99-65-0	1,3-Dinitrobenzene	BRL		ug/L
208-96-8	Acenaphthylene	BRL		ug/L
606-20-2	2,6-Dinitrotoluene	BRL		ug/L
528-29-0	1,2-Dinitrobenzene	BRL		ug/L
99-09-2	3-Nitroaniline	BRL		ug/L
83-32-9	Acenaphthene	46		ug/L
51-28-5	2,4-Dinitrophenol	BRL		ug/L
100-02-7	4-Nitrophenol	BRL		ug/L
132-64-9	Dibenzofuran	BRL		ug/L
121-14-2	2,4-Dinitrotoluene	BRL		ug/L

GROUNDWATER ANALYTICAL

EPA Method 8270C (Continued)
Semivolatile Organics by GC/MS

Field ID: WC-GW1
Project: NSTAR-Kendall/500.50.1
Client: Lightship Engineering
Laboratory ID: 72707-02
Sampled: 05-14-04 09:58
Received: 05-14-04 17:40
Extracted: 05-20-04 18:00
Analyzed: 05-26-04 13:49
Analyst: JJT

Matrix: Aqueous
Container: 1 L Amber Glass
Preservation: Cool
QC Batch ID: SV-1497-F
Instrument ID: MS-3 HP 5890
Sample Volume: 1000 mL
Final Volume: 1 mL
Dilution Factor: 1

CAS Number	Analyte	Concentration	Units	Recovery
84-66-2	Diethyl phthalate	BRL	ug/L	5
7005-72-3	4-Chlorophenyl phenyl ether	BRL	ug/L	5
86-73-7	Fluorene	12	ug/L	5
100-01-6	4-Nitroaniline	BRL	ug/L	5
534-52-1	4,6-Dinitro-2-methylphenol	BRL	ug/L	5
86-30-6	N-Nitrosodiphenylamine †	BRL	ug/L	5
122-66-7	1,2-Diphenylhydrazine †	BRL	ug/L	5
101-55-3	4-Bromophenyl phenyl ether	BRL	ug/L	5
118-74-1	Hexachlorobenzene	BRL	ug/L	5
87-86-5	Pentachlorophenol	BRL	ug/L	5
85-01-8	Phenanthrene	11	ug/L	5
120-12-7	Anthracene	BRL	ug/L	5
86-74-8	Carbazole	5.7	ug/L	5
84-74-2	Di-n-butyl phthalate	BRL	ug/L	5
206-44-0	Fluoranthene	BRL	ug/L	5
129-00-0	Pyrene	BRL	ug/L	5
85-68-7	Butyl benzyl phthalate	BRL	ug/L	5
91-94-1	3,3'-Dichlorobenzidine	BRL	ug/L	5
56-55-3	Benzol[j]anthracene	BRL	ug/L	5
218-01-9	Chrysene	BRL	ug/L	5
117-81-7	Bis(2-ethylhexyl) phthalate	BRL	ug/L	5
117-84-0	Di-n-octyl phthalate	BRL	ug/L	5
205-99-2	Benzol[k]fluoranthene	BRL	ug/L	5
207-08-9	Benzol[k]fluoranthene	BRL	ug/L	5
50-32-8	Benzol[a]pyrene	BRL	ug/L	5
193-39-5	Indeno[1,2,3-cd]pyrene	BRL	ug/L	5
53-70-3	Dibenzof[a,h]jenthracene	BRL	ug/L	5
191-24-2	Benzol[g,h,i]perylene	BRL	ug/L	5

QC Surrogate Compound	Spiked	Measured	Recovery	Units
2-Fluorophenol	200	100	50 %	ug/L
Phenol-d5	200	77	39 %	ug/L
Nitrobenzene-d5	100	64	64 %	ug/L
2-Fluorobiphenyl	100	66	66 %	ug/L
2,4,6-Tribromophenol	200	160	80 %	ug/L
Terphenyl-d14	100	75	75 %	ug/L

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3510C.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

* Analyzed as 4-Methylphenol.
† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.
0 Analyzed as Azobenzene.



EPA Method 8082
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID: WC-GW1
Project: NSTAR-Kendall/500.50.1
Client: Lightship Engineering

Laboratory ID: 72707-03
Sampled: 05-14-04 09:58
Received: 05-14-04 17:40
Extracted: 05-20-04 18:00
Cleaned Up: 05-24-04 17:30
Analyzed: 05-26-04 01:44
Analyst: JJT

Matrix: Aqueous
Container: 1 L Amber Glass
Preservation: Cool

QC Batch ID: PB-1055-F
Instrument ID: GC-6 HP 5890
Sample Volume: 1000 mL
Final Volume: 10 mL
Dilution Factor: 1

CAS Number	Analyte	Concentration	Units	Recovery (%)
12674-11-2	Aroclor 1016	BRL	ug/L	0.2
11104-28-2	Aroclor 1221	BRL	ug/L	0.2
11141-16-5	Aroclor 1232	BRL	ug/L	0.2
53469-21-9	Aroclor 1242	BRL	ug/L	0.2
12672-29-6	Aroclor 1248	BRL	ug/L	0.2
11097-69-1	Aroclor 1254	BRL	ug/L	0.2
11096-82-5	Aroclor 1260	BRL	ug/L	0.2
QC Surrogate Compound				
First	Tetrachloro-m-xylene	0.20	0.16	80 %
Column	Decachlorobiphenyl	0.20	0.20	101 %
Second	Tetrachloro-m-xylene	0.20	0.18	91 %
Column	Decachlorobiphenyl	0.20	0.21	105 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.



Inorganic Chemistry

Field ID: WC-GW1
Project: NSTAR-Kendall/500.50.1
Client: Lightship Engineering

Matrix: Aqueous
Received: 05-14-04 17:40

Lab ID: 72707-04	Sampled: 05-14-04 09:58	Container: 500 mL Plastic	Preservation: Cool
Analyte:	RL	DF	Method
pH	6.9	05-14-04 16:15	PH-1683-W
Specific Conductance	1,200	05-14-04 18:05	SC-1076-W
			SM 4500-H+8
			EPA 9050A
			1
			1
			UD
			UD

Method Reference: Methods for Chemical Analysis of Water and Wastes, US EPA, EPA-600/4-790-020 (Revised 1983), and Methods for the Determination of Inorganic Substances in Environmental Samples, US EPA, EPA/600/R-93/100 (1993), and Standard Methods for the Examination of Water and Wastewater, APHA, Twentieth Edition (1998), and Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

RL Reporting Limit
DF Dilution Factor
1 Instrument ID: Accumet AR50

ASTM Method D3328-00 (Modified)
Hydrocarbon Fingerprint by GC/FID

Field ID:	WC-GW1	Matrix:	Aqueous
Project:	NSTAR-Kendall/500.50.1	Container:	1 L Amber Glass
Client:	Lightship Engineering	Preservation:	H2SO4/Cool
Laboratory ID:	72707-05	QC Batch ID:	HF-1478-F
Sampled:	05-14-04 09:58	Instrument ID:	GC-12 Agilent 6890
Received:	05-14-04 17:40	Sample Volume:	1000 mL
Extracted:	05-20-04 18:00	Final Volume:	1 mL
Analyzed:	05-26-04 22:00	Dilution Factor:	1
Analyst:	WN		

Qualitative Identification	
This sample has GC/FID characteristics that are similar to:	
1. 2 through 3 ring polynuclear aromatic hydrocarbons.	
2. Indeterminate petroleum products in the n-C9 to n-C36 range.	

Analyte	Concentration	mg/L	Reporting Limit
Total Petroleum Hydrocarbons	4.9		60 - 140 %
GC Surrogate Compound ortho-Terphenyl	0.040	0.040	100 %

Method Reference: Comparison of Waterborne Petroleum Oils by Gas Chromatography, Annual Book of ASTM Standards, Volume 11.02, American Society for Testing and Materials (2000).
Method modified to quantify total petroleum hydrocarbons in the range n-C 9 through n-C 36. Results are quantified on the basis of a series of aromatic and aliphatic hydrocarbons, using 5-alpha-androstane as an internal standard.
Sample extraction performed by separatory funnel technique.

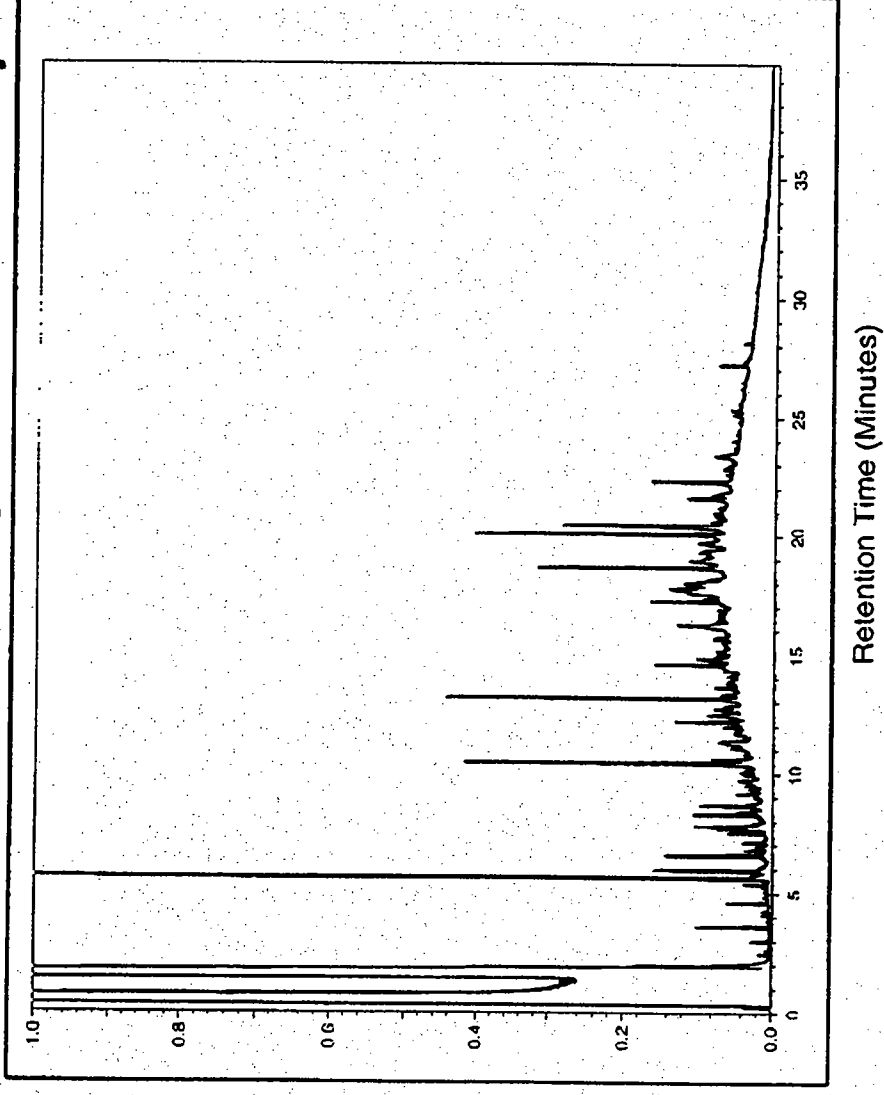
Report Notations: BRL Indicates concentration, if any, is below reporting limit for analyte. Reporting limit is the lowest concentration that can be reliably quantified under routine laboratory operating conditions. Reporting limits are adjusted for sample size and dilution.

**GROUNDWATER
ANALYTICAL**

ASTM METHOD D3328-00 (Modified)
Hydrocarbon Fingerprinting by GC/FID

Lab ID: 72707-05

Hydrocarbons Laboratory



CLIENT NAME:
SAMPLE TYPE:
COLLECTION DATE:
REC'D BY LAB:
COLLECTED BY:
PRESERVATIVE:

TRC ENVIRONMENTAL
GROUNDWATER
02/22/05
02/22/05
CLIENT
HYDROCHLORIC ACID

PROJECT ID:
REPORT DATE:
ANALYZED BY:
ANALYSIS DATE:
DIGESTION DATE:

42462-0000-00000
02/24/05
ZYZ
02/22/05
N/A

VOLATILE ORGANICS

SAMPLE NUMBER:
SAMPLE LOCATION:

161717
DIRECT

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
2-Hexanone	ND	10.0
Isopropylbenzene	5.86	5.0
p-Isopropyltoluene	ND	5.0
Methylene Chloride	ND	10.0
4-Methyl-2-pentanone	ND	5.0
Methyl tert-butyl ether	ND	5.0
Naphthalene	413	20.0
n-propylbenzene	ND	5.0
Sec-butylbenzene	ND	5.0
Styrene	ND	5.0
tert-butylbenzene	ND	5.0
Tetrachloroethene	ND	5.0
Toluene	9.38	5.0
Trichloroethene	ND	5.0
Trichlorofluoromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1,2-Trichloroethane	ND	5.0
1,1,2,2-Tetrachloroethane	ND	0.61
1,1,1,2-Tetrachloroethane	ND	2.0
1,2,3-Trichloropropane	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
1,2,4-Trimethylbenzene	8.78	5.0
1,3,5-Trimethylbenzene	ND	5.0
Vinyl Chloride	ND	2.0
Xylenes	33.2	5.0
Surrogate Recoveries:		
dibromofluoromethane	105%	
1,2-Dichloroethane	99%	
toluene-d8	91%	
BFB	100%	

ND = NOT DETECTED

Method Reference:

EPA Method 8260B (1) GC/MS

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Ed.

BLANK ND 02/22/05

VOLATILE ORGANICS LCS

%RECOVERY

Dichlorodifluoromethane	93%	1,1,2-Trichloroethane	98%
Chloromethane	87%	Tetrachloroethene	121%
Vinyl chloride	91%	1,3-Dichloropropane	95%
Bromomethane	77%	2-Hexanone	82%
Chloroethane	74%	Dibromochloromethane	93%
Trichlorofluoromethane	90%	EDB	96%
1,1-Dichloroethene	88%	Chlorobenzene	108%
Acetone	76%	1,1,1,2-tetrachloroethane	100%
Carbon Disulfide	90%	Ethylbenzene	104%
Methylene chloride	92%	m,p-Xylene	103%
Acrylonitrile	79%	o-xylene	103%
trans-1,2-Dichloroethene	90%	Styrene	98%
MTBE	82%	Bromoform	82%
1,1-Dichloroethane	89%	Isopropylbenzene	110%
2-Butanone	88%	Bromobenzene	108%
Carbon tetrachloride	93%	1,1,2,2-Tetrachloroethane	88%
2,2-Dichloropropane	95%	1,2,3-Trichloropropane	100%
c-1,2-dichloroethene	90%	N-propylbenzene	107%
Bromochloromethane	88%	2-Chlorotoluene	106%
Chloroform	94%	4-Chlorotoluene	99%
1,1,1-Trichloroethane	96%	1,3,5-Trimethylbenzene	105%
1,1-dichloropropene	101%	tert-Butylbenzene	109%
Benzene	99%	1,2,4-Trimethylbenzene	101%
1,2-Dichloroethane	92%	sec-Butylbenzene	125%
Trichloroethene	110%	1,3-Dichlorobenzene	121%
1,2-Dichloropropane	97%	1,4-Dichlorobenzene	121%
Dibromomethane	97%	p-Isopropyltoluene	120%
Bromodichloromethane	91%	1,2-Dichlorobenzene	113%
2-Chloroethylvinyl Ether	93%	N-Butylbenzene	117%
c-1,3-Dichloropropene	89%	1,2-dibromo-3-chloropropane	92%
Toluene	104%	1,2,4-trichlorobenzene	138%
t-1,3-Dichloropropene	99%	Hexachlorobutadiene	173%
		Naphthalene	116%
		1,2,3-Trichlorobenzene	141%

MCP Limits 70%-130%

The majority of recoveries must fall within this range.

CLIENT NAME:

TRC ENVIRONMENTAL

PROJECT ID:

42462-0000-00000

SAMPLE TYPE:

GROUNDWATER

REPORT DATE:

02/24/05

COLLECTION DATE:

02/22/05

ANALYZED BY:

QS / EN

REC'D BY LAB:

02/22/05

ANALYSIS DATE:

SEE BELOW

COLLECTED BY:

CLIENT

DIGESTION DATE:

SEE BELOW

PRESERVATIVE:

NITRIC ACID

TOTAL RCRA METALS

SAMPLE NUMBER:

161716

SAMPLE LOCATION:

TANK

	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DIGESTION DATE	ANALYSIS DATE
ARSENIC	ND	0.05	02/23/05	02/23/05
BARIUM	0.324	0.03	02/23/05	02/23/05
CADMIUM	ND	0.005	02/23/05	02/23/05
CHROMIUM	ND	0.06	02/23/05	02/23/05
LEAD	0.398	0.02	02/23/05	02/23/05
MERCURY	0.00190	0.001	02/24/05	02/24/05
SELENIUM	ND	0.05	02/23/05	02/23/05
SILVER	ND	0.007	02/23/05	02/23/05

ND = NOT DETECTED
Method Reference:

EPA Method

3005A (1)

Metal Preparation

EPA Method

6010B (1)

Inductively Coupled Plasma

EPA Method

245.1 (2)

Manual Cold Vapor (Mercury)

- 1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.
- 2) U.S. EPA 1994. "Methods for the Determination of Metals in Environmental Samples", Supplement I- EPA/600/R-94-111-May 1994.

CLIENT NAME:
SAMPLE TYPE:
COLLECTION DATE:
REC'D BY LAB:
COLLECTED BY:

TRC ENVIRONMENTAL
GROUNDWATER
02/22/05
02/22/05
CLIENT

PROJECT ID:
REPORT DATE:
ANALYZED BY:

42462-0000-00000
02/24/05
QS / EN

METALS QC

	Blank	Spike % Rec.	Limits
Arsenic	ND	84%	80-120%
Barium	ND	94%	80-120%
Cadmium	ND	89%	80-120%
Chromium	ND	95%	80-120%
Lead	ND	92%	80-120%
Mercury	ND	92%	80-120%
Selenium	ND	86%	80-120%
Silver	ND	101%	80-120%

CLIENT NAME: TRC ENVIRONMENTAL PROJECT ID: 42462-0000-00000
SAMPLE TYPE: GROUNDWATER REPORT DATE: 02/24/05
COLLECTION DATE: 02/22/05 ANALYZED BY: QS / EN
REC'D BY LAB: 02/22/05 ANALYSIS DATE: SEE BELOW
COLLECTED BY: CLIENT DIGESTION DATE: SEE BELOW
PRESERVATIVE: NITRIC ACID

DISSOLVED RCRA METALS

SAMPLE NUMBER: 161716
SAMPLE LOCATION: TANK

	RESULTS (mg/L)	DETECTION LIMIT (mg/L)	DIGESTION DATE	ANALYSIS DATE
ARSENIC	ND	0.05	N/A	02/23/05
BARIUM	ND	0.03	N/A	02/23/05
CADMIUM	ND	0.005	N/A	02/23/05
CHROMIUM	ND	0.05	N/A	02/23/05
LEAD	ND	0.010	N/A	02/23/05
MERCURY	ND	0.001	02/23/05	02/23/05
SELENIUM	ND	0.05	N/A	02/23/05
SILVER	ND	0.007	N/A	02/23/05

ND = NOT DETECTED
Method Reference:

EPA Method 3005A (1) Metal Preparation
EPA Method 6010B (1) Inductively Coupled Plasma
EPA Method 245.1 (2) Manual Cold Vapor (Mercury)

- 1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Edition.
2) U.S. EPA 1994. "Methods for the Determination of Metals in Environmental Samples", Supplement I- EPA/600/R-94-111-May 1994.

CLIENT NAME:
SAMPLE TYPE:
COLLECTION DATE:
REC'D BY LAB:
COLLECTED BY:
PRESERVATIVE:

TRC ENVIRONMENTAL
GROUNDWATER
02/22/05
02/22/05
CLIENT
SULFURIC ACID

PROJECT ID:
REPORT DATE:
ANALYZED BY:
ANALYSIS DATE:
EXTRACTION DATE:

42462-0000-00000
02/24/05
KH
02/23/05
02/23/05

TOTAL PETROLEUM HYDROCARBONS

SAMPLE NUMBER	SAMPLE LOCATION	TPH (mg/L)	DETECTION LIMIT (mg/L)
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161716	TANK	1.27	0.20
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ND = NOT DETECTED

Method Reference:

EPA Method 8100 (1) Modified

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1986, 3rd Edition.

CLIENT NAME:

SAMPLE TYPE:

COLLECTION DATE:

REC'D BY LAB:

COLLECTED BY:

TRC ENVIRONMENTAL

GROUNDWATER

02/22/05

02/22/05

CLIENT

PROJECT ID:

REPORT DATE:

ANALYZED BY:

42462-0000-00000

02/24/05

KH

TPH WATER QA/QC

	BLANK	MDL	LCS %	% REC.
Gasoline	ND	0.2 mg/L		
Kerosene / Jet Fuel	ND	0.2 mg/L		
Diesel Fuel #2	ND	0.2 mg/L	119%	40-140%
Fuel #4	ND	0.2 mg/L		
Fuel #6	ND	0.2 mg/L		
Transformer Oil	ND	0.2 mg/L		
Paraffin Oil	ND	0.2 mg/L		
Motor Oil	ND	0.2 mg/L		
Surrogate				
OTP % Recovery	102%		87%	40-140%

CLIENT NAME:
SAMPLE TYPE:
COLLECTION DATE:
REC'D BY LAB:
COLLECTED BY:
PRESERVATIVE:

TRC ENVIRONMENTAL
GROUNDWATER
02/22/05
02/22/05
CLIENT
N/A

PROJECT ID:
REPORT DATE:
ANALYZED BY:
ANALYSIS DATE:
DIGESTION DATE:

42462-0000-00000
02/24/05
AS
02/22/05
N/A

TOTAL SUSPENDED SOLIDS			
SAMPLE NUMBER	SAMPLE LOCATION	TOTAL SUSPENDED SOLIDS (mg/L)	DETECTION LIMIT (mg/L)

161716	TANK	407	4.00
--------	------	-----	------

ND = NOT DETECTED
Method Reference:

EPA Method 160.2 (1)

1) U.S. EPA 1983. "Methods for Chemical Analysis of Water and Wastes." EPA-600/479-020, EPA, EMSL, Cincinnati, Ohio 45268.

CLIENT NAME:
SAMPLE TYPE:
COLLECTION DATE:
REC'D BY LAB:
COLLECTED BY:
PRESERVATIVE:

TRC ENVIRONMENTAL
GROUNDWATER
02/22/05
02/22/05
CLIENT
N/A

PROJECT ID:
REPORT DATE:
ANALYZED BY:
ANALYSIS DATE:
EXTRACTION DATE:

42462-0000-00000
02/24/05
RD
02/23/05
02/22/05

SEMI-VOLATILE ORGANICS

SAMPLE NUMBER:
SAMPLE LOCATION:

161716
Tank

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Acenaphthene	8.66	0.500
Acenaphthylene	1.18	0.250
Acetophenone	ND	0.750
Aniline	ND	2.250
Anthracene	1.85	0.500
Azobenzene	ND	5.000
Benzo [a] anthracene	1.37	0.500
Benzo [b] fluoranthene	1.69	0.500
Benzo k] fluoranthene	ND	1.000
Benzo [ghi] perylene	1.02	1.000
Benzo [a] pyrene	1.44	0.200
Benzyl alcohol	ND	1.000
Bis-(2-chloroethoxy)methane	ND	0.500
Bis-(2-chloroethyl) ether	ND	0.500
Bis-(2-chloroisopropyl) ether	ND	0.750
Bis-(2-ethylhexyl)phthalate	ND	2.000
4-Bromophenyl phenyl ether	ND	0.750
Butyl benzyl phthalate	ND	1.250
Carbazole	2.85	0.750
4-Chloroaniline	ND	2.500
4-Chloro-3-methylphenol	ND	0.500
2-Chloronaphthalene	ND	0.500
2-Chlorophenol	ND	0.500
4-Chlorophenyl-phenylether	ND	0.500
Chrysene	1.38	0.500
Dibenz [a,h] anthracene	ND	0.500
Dibenzofuran	3.07	0.500

CLIENT NAME: TRC ENVIRONMENTAL

SAMPLE TYPE: GROUNDWATER

COLLECTION DATE: 02/22/05

REC'D BY LAB: 02/22/05

COLLECTED BY: CLIENT

PROJECT ID: 42462-0000-00000

REPORT DATE: 02/24/05

ANALYZED BY: RD

ANALYSIS DATE: 02/23/05

EXTRACTION DATE: 02/22/05

SEMI-VOLATILE ORGANICS

SAMPLE NUMBER: 161716

SAMPLE LOCATION: Tank

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
1,2-Dichlorobenzene	ND	1,000
1,3-Dichlorobenzene	ND	1,000
1,4-Dichlorobenzene	ND	1,000
3,3'-dichlorobenzidine	ND	2,500
2,4-Dichlorophenol	ND	0,500
Diethyl phthalate	ND	1,250
2,4-Dimethylphenol	ND	3,750
Dimethylphthalate	ND	1,750
Di-n-butylphthalate	ND	0,750
Di-n-octyl phthalate	ND	2,000
1,2-Dinitrobenzene	ND	5,000
1,3-Dinitrobenzene	ND	0,750
1,4-Dinitrobenzene	ND	5,000
4,6-Dinitro-2-methylphenol	ND	1,000
2,4-Dinitrophenol	ND	0,250
2,4-Dinitrotoluene	ND	0,500
2,6-Dinitrotoluene	ND	0,250
Fluoranthene	3.51	0,500
Fluorene	4.28	0,500
Hexachlorobenzene	ND	1,000
Hexachlorobutadiene	ND	0,500
Hexachlorocyclopentadiene	ND	10,000
Hexachloroethane	ND	2,000
Indeno [1,2,3-cd] pyrene	0.776	0,500
Isophorone	ND	0,500
2-Methylnaphthalene	3.28	0,750
2-Methylphenol	ND	1,000
3-Methylphenol/4-methylphenol	ND	1,500

CLIENT NAME:

TRC ENVIRONMENTAL

PROJECT ID:

42462-0000-00000

SAMPLE TYPE:

GROUNDWATER

REPORT DATE:

02/24/05

COLLECTION DATE:

02/22/05

ANALYZED BY:

RD

REC'D BY LAB:

02/22/05

ANALYSIS DATE:

02/23/05

COLLECTED BY:

CLIENT

EXTRACTION DATE:

02/22/05

SEMI-VOLATILE ORGANICS

SAMPLE NUMBER:

161716

SAMPLE LOCATION:

Tank

	RESULTS (µg/L)	DETECTION LIMIT (µg/L)
Naphthalene	18.0	0.750
2-Nitroaniline	ND	0.750
3-Nitroaniline	ND	1.500
4-Nitroaniline	ND	1.000
Nitrobenzene	ND	0.750
2-Nitrophenol	ND	0.500
4-Nitrophenol	ND	0.500
N-Nitrosodimethylamine	ND	1.000
N-Nitrosodiphenylamine	ND	5.000
N-nitroso-di-n-propylamine	ND	1.000
Pentachlorophenol	ND	1.000
Phenanthrene	6.13	0.500
Phenol	ND	0.250
Pyrene	3.92	1.250
Pyridine	ND	1.250
2,3,4,6-Tetrachlorophenol	ND	1.000
1,2,4-Trichlorobenzene	ND	0.750
2,4,5-Trichlorophenol	ND	0.750
2,4,6-Trichlorophenol	ND	0.500

Surrogate Recoveries

2-Fluorophenol	44%
Phenol-d6	34%
Nitrobenzene-d5	52%
2-Fluorobiphenyl	58%
2,4,6-Tribromophenol	79%
Terphenyl-d14	57%

ND = NOT DETECTED

CALCULATIONS BASED ON DRY WEIGHT

Method Reference:

EPA Method

8270C (1)

1) U.S. EPA Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 1997, 3rd Ed.

CLIENT NAME:
SAMPLE TYPE:
COLLECTION DATE:
REC'D BY LAB:
COLLECTED BY:

TRC ENVIRONMENTAL
GROUNDWATER
02/22/05
02/22/05
CLIENT

PROJECT ID:
REPORT DATE:
ANALYZED BY:
ANALYSIS DATE:
EXTRACTION DATE:

42462-0000-000000
02/24/05
RD
02/23/05
02/22/05

SEMI-VOLATILE ORGANICS - QC

	Blank	Spike % Rec.	Limits
Phenol	ND	35%	30-130%
2-chlorophenol	ND	58%	30-130%
1,4-Dichlorobenzene	ND	49%	40-140%
N-Nitroso-di-n-propylamine	ND	56%	40-140%
1,2,4-Trichlorobenzene	ND	56%	40-140%
4-Chloro-3-methylphenol	ND	70%	30-130%
Acenaphthene	ND	63%	40-140%
4-Nitrophenol	ND	36%	30-130%
2,4-Dinitrotoluene	ND	70%	40-140%
Pentachlorophenol	ND	48%	30-130%
Pyrene	ND	75%	40-140%

Surrogate Recoveries:		% Rec.	% Rec.	Limits
2-Fluorophenol		42%	38%	30-130%
Phenol-d6		35%	34%	30-130%
Nitrobenzene-d5		64%	48%	30-130%
2-Fluorobiphenyl		65%	55%	30-130%
2,4,6-Tribromophenol		68%	71%	30-130%
Terphenyl-d14		74%	80%	30-130%

Geolabs, Inc. Environmental Laboratories 45 Johnson Lane Braintree, MA 02184 Phone: 781-848-7844 Fax: 781-848-7811		Client: TRC ENVIRONMENTAL CORP Address: 100 FT OF JOHN ST LOWELL MA 01852 Phone: 978-970-5600 Fax: 978-453-1995 Contact: DOT McGILKRY E-mail:		Turnaround Time RUSH: ☒ 24hrs ☐ 48hrs ☐ 72hrs STANDARD: ☐ 5 Days ☐ Rush Approved By: _____		Project Number: 42462-0000-0000 Project Location: MSTAR, KENWALL Purchase Order #: Collected By: SCOTT R JAMES		ANALYSES REQUESTED TRC ENV. CORP LOWELL MA -1593 Dear Schaffer (for #) rec'd on file	
Geolabs, Inc. Environmental Laboratories 45 Johnson Lane Braintree, MA 02184 Phone: 781-848-7844 Fax: 781-848-7811		Client: TRC ENVIRONMENTAL CORP Address: 100 FT OF JOHN ST LOWELL MA 01852 Phone: 978-970-5600 Fax: 978-453-1995 Contact: DOT McGILKRY E-mail:		Turnaround Time RUSH: ☒ 24hrs ☐ 48hrs ☐ 72hrs STANDARD: ☐ 5 Days ☐ Rush Approved By: _____		Project Number: 42462-0000-0000 Project Location: MSTAR, KENWALL Purchase Order #: Collected By: SCOTT R JAMES		ANALYSES REQUESTED TRC ENV. CORP LOWELL MA -1593 Dear Schaffer (for #) rec'd on file	

Friday, October 07, 2005

Dave Schafer
TRC Environmental
Boat Mills South
Foot of John Street
Lowell, MA 01852

TEL: (978) 656-3570
FAX (978) 453-1593

RE: NSTAR Plant, East First Street

Dear Dave Schafer:

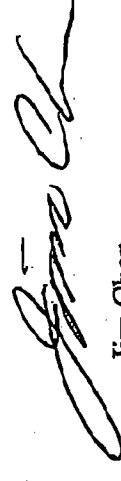
Order No.: 0510058

GeoLabs, Inc. received 1 sample(s) on 10/6/2005 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,



Jim Chen
Laboratory Director

GeoLabs, Inc.

Date: 07-Oct-05

CLIENT:	TRC Environmental	Lab Order:	0510058
Project:	NSTAR Plant, East First Street		

Lab ID: 0510058-001 Collection Date: 10/6/2005 8:30:00 AM

Client Sample ID: Influent

Matrix: WATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
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ICP METALS

Antimony	ND	E200.7 0.0300		mg/L	(SW3010A) 1	Analyst: ZYZ 10/6/2005
Chromium	ND	0.0600		mg/L	1	10/6/2005
Copper	0.0160	0.00800		mg/L	1	10/6/2005
Iron	3.64	0.0600		mg/L	1	10/6/2005
Nickel	0.0230	0.0100		mg/L	1	10/6/2005
Zinc	0.213	0.100		mg/L	1	10/6/2005

CYANIDE, TOTAL

Cyanide, Total	ND	E335.2 0.020		mg/L	1	Analyst: RP 10/7/2005
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HEXAVALENT CHROMIUM

Chromium, Hexavalent	ND	M3500-Cr D 0.321		mg/L	1	Analyst: TCW 10/6/2005
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TOTAL RESIDUAL CHLORINE

Total Residual Chlorine	ND	Hach 8167 0.162		mg/L	1	Analyst: RP 10/5/2005
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Qualifier:		Value exceeds Maximum Contaminant Level		Analyte detected in the associated Method Blank
E	Value above quantitation range		H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits		ND	Not Detected at the Reporting Limit
S	Spike Recovery outside accepted recovery limits			

CHAIN OF CUSTODY									
Geolabs CHAIN NUMBER: 0510059									
SPECIAL INSTRUCTIONS									
Page 1 of 1									
Metals: Cr, Sb, Cu, Zn, Ni, Fe									
Geolabs, Inc. Environmental Laboratories 45 Johnson Lane Braintree, MA 02184 Office: 781-848-7844 Fax: 781-848-7811									
Note: JOBS WITH INCOMPLETELY FILLED OUT CHAINS WILL NOT BE RUN. CHAIN WILL BE RETURNED TO CLIENT FOR COMPLETION									
TYPE OF CLIENT: BUS LAB HOMEOWNER									
Client: X Environmental									
Address: X John Street NO P.O. BOXES									
Lower, MA. 01902									
Phone: X 978-970-1600									
Fax: 978-442-1000									
Contact: X Dave Miller									
E-mail: dmiller@theindustrial.com									
Project Number: X									
Project Location: X North East									
East West Street									
Cambridge, MA.									
Purchase Order #:									
Collected By: X D.G. Miller									
978-833-0108									
Received on ice? ☒									
ANALYSES REQUESTED									
CHANGES REQUESTED? Y N DATE									
BY									
Total Residual Chlorine									
Cyanide									
Metals									
Hex chrome									
TEMPERATURE									
HDBP									
Sample ID									
Influent									
10/06/05 0830 PM									
Pump									
Flow. 100. H2O									
P									
M									
O									
C									
B									
A									
R									
S									
Geolabs Sample Number									
10058-001									
by (date/initial)									
Retained By: <i>[Signature]</i> Date/Time: 10/06/05 0940									
Relinquished By: <i>[Signature]</i> Date/Time: 10/06/05 0940									
Received By: <i>[Signature]</i> Date/Time: 10/06/05 0940									
Received By Geolabs: 10/06/05 9:40a									

ATTACHMENT C

**Correspondence with the Massachusetts Historical
Commission**

October 5, 2005

Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, Massachusetts 02125

Ref: NSTAR Kendall Substation Dewatering under the Remediation General Permit (RGP)

Dear Sir or Madam,

NSTAR Electric & Gas Corporation (NSTAR) is currently constructing a new electric substation on Mirant Kendall’s property in Cambridge, MA. The site is located at 265 First Avenue. A site location map is attached as Figure 1. Since March 2005, treated dewatering effluent from construction activities has been discharged to the Broad, Canal/Charles River through an existing storm water collection and conveyance system. The discharge was authorized under a National Pollutant Discharge Elimination System (NPDES) exclusion letter.

On September 9, 2005, the Director of the Office of Ecosystem Protection, EPA-New England (EPA-NE) issued a new general permit for point source discharges related to groundwater remediation projects, including construction dewatering projects where contaminants are present. The new general permit, known as the Remediation General Permit (RGP), covers discharges to certain waters in the Commonwealth of Massachusetts (MA), including both Commonwealth and Indian Country lands.

With release of the RGP, existing dischargers operating under an exclusion letter are required to seek coverage under the RGP. As part of this process, the applicant is required to contact the State Historic Preservation Officer (SHPO) to ensure that the discharge does not adversely impact any historic structures or properties. To date, monitoring results indicate that the treatment system is capable of efficiently managing dewatering effluent without adversely impacting water quality in the Broad Canal or Charles River.

The treatment system at the site is designed to handle up to 50 gallons per minute (gpm) of dewatering effluent, but has periodically operated at rates ranging from 10 gpm to 25 gpm, when required. Based on operating experience, we anticipate that the dewatering system will be required periodically throughout the fall to facilitate installation of new duct banks to reconnect the substation with the local electrical grid. All ongoing construction activities will be limited to the Mirant-Kendall property.

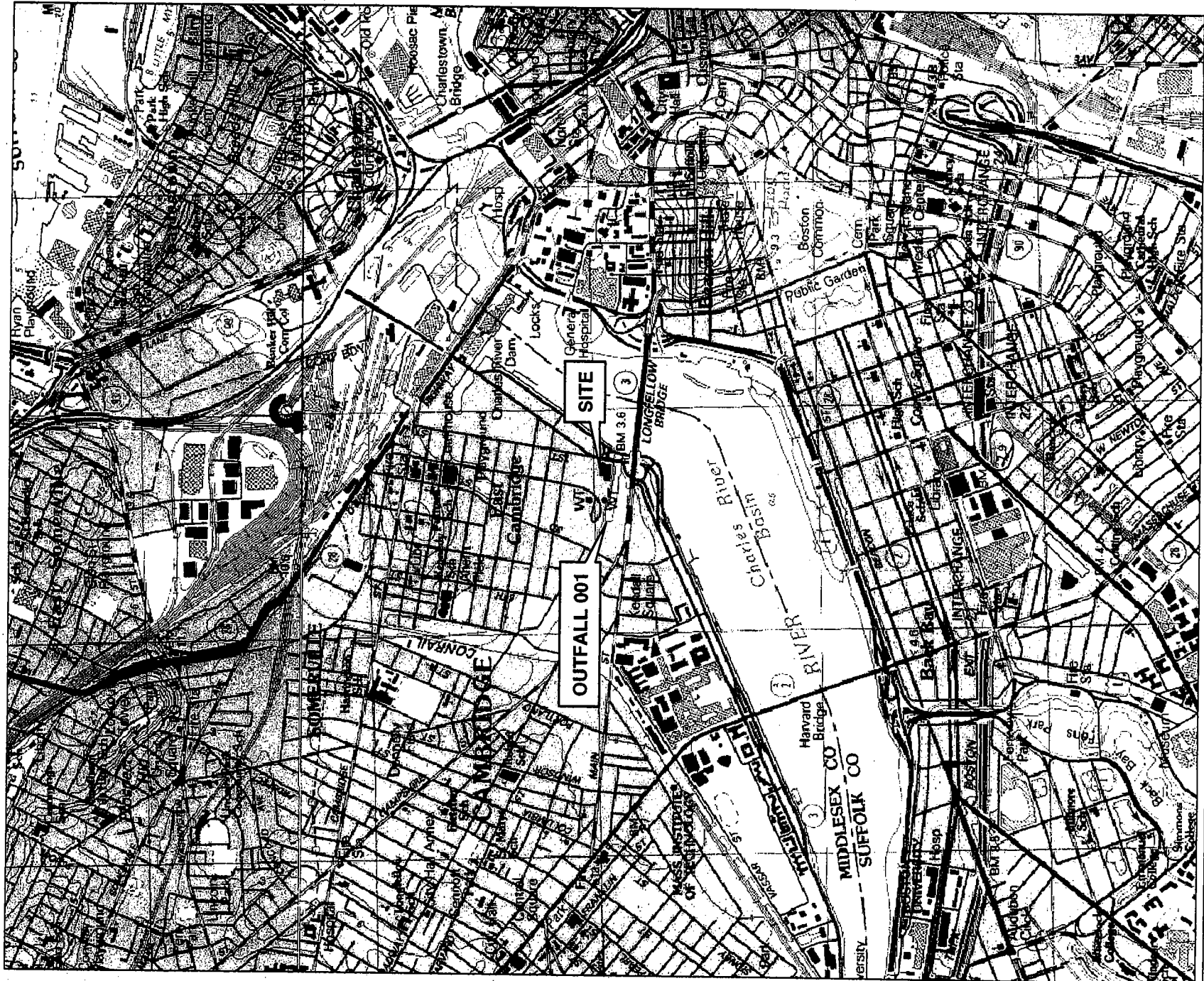
Your review of this material and input for the RGP application is greatly appreciated. If you have any questions, please feel free to contact me at your earliest convenience. I may be reached at (978) 656-3570.

Sincerely,



David E. Schafer, P.E.

cc: Beverly Schultz/NSTAR
Dan Watton/NSTAR
Dot McGlinchey/TRC



Base map consists of USGS 'Boston North' and 'Boston South' topographic quadrangles.

0 1,000 2,000 Feet



TRC

Boott Mills South
Foot of John Street
Lowell, MA 01852
978-970-5600

FIGURE 1
SITE LOCATION MAP
KENDALL STATION
CAMBRIDGE, MASSACHUSETTS