CORPORATE ENVIRONMENTAL ADVISORS, INC.

MAG910178

PROUDLY CELEBRATING 20 YEARS Of Outstanding Service 1985 - 2005

December 27, 2005

Mr. George Papadopolous
US-EPA Region 1
RGP-NOC Processing
Municipal Assistance Unit (CIP)
One Congress Street
Boston, Massachusetts 02114-2023

RE: EPA Remediation General Permit Notice of Intent
Cumberland Farms, Inc.
Station No. 2157
1455 Fall River Avenue
Seekonk, MA
RTN 4-13374

Mr. Papadopolous:

On behalf of Cumberland Farms, Inc. (CFI), Corporate Environmental Advisors, Inc. (CEA) is submitting this Notice of Intent (NOI) for an EPA Remediation General Permit (RGP) to treat and discharge petroleum-impacted groundwater at the above referenced site. This work is being conducted as part of Release Abatement Measure (RAM) activities at the site under 310 CMR 40.0440 of the Massachusetts Contingency Plan (MCP). **Figure 1,** Site Locus Map, shows the property location with respect to surrounding topography. **Figure 2**, Site Layout, depicts pertinent site features.

Groundwater will be encountered during the installation of new underground storage tank (UST), removal of the existing USTs, and soil excavation related to the site raze and rebuild activities to be initiated at the site on January 9, 2006. Once groundwater is encountered during excavation activities, a groundwater recovery sump will be installed to an approximate depth of 15 feet below surface grade and approximately 10 feet below the observed depth to groundwater. A submersible pump will be placed in the sump to remove groundwater from the excavation and temporarily stored in a 21,000-gallon frac-tank. The groundwater treatment recovery system configuration is further discussed below.

Groundwater will be pumped from the frac-tank using a submersible pump through an on-site groundwater treatment system. Recovered groundwater will be pre-treated through two, 45-micron bag filters, in series, and then treated using three (3) 2,000-pound liquid-phase granular-activated-carbon-adsorption (GACA) vessels, piped in series. The groundwater treatment system will be designed to treat and discharge groundwater at a maximum flow rate of 100 gallons per minute (GPM). The flow meter and flow totalizer will be located immediately prior to discharge of the treated groundwater. Flow rates will be periodically monitored throughout discharging and total discharged gallons of treated groundwater will be recorded at the end of each day.

Generated groundwater will be treated and discharged to a stormwater drainage system located in Warren Avenue. No information regarding the receiving waters was available form the Department of Public Works (DPW).

Groundwater discharge will be monitored according to the guidelines described in the RGP. In-line sample ports for sample collection will be installed at the GACA influent, midpoint, and effluent discharge points. In addition, a totalizer and flow meter will be installed along the discharge line for proper recording of groundwater discharge volume and flow rates. The dewatering system is anticipated to be operated for a period of approximately two months. A dewatering schematic is provided in **Figure 3**. The NOI forms and supporting documentation are attached.

If you have any questions or require additional information, please do not hesitate to contact the undersigned at (508)-835-8822 or Mr. Oliver Udemba of Cumberland Farms, Inc. at (781) 828-4900.

Sincerely,
CORPORATE ENVIRONMENTAL ADVISORS, INC.

Jennifer Snay
Environmental Scientist II

Scott Masse
Project Manager

cc: Mr. Oliver Udemba, CFI
Ms. Jessica Amelin, ECS
CEA File 3436-97

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**: Cumberland Farms Inc. Store # 2157			**Facility/site** address:	
Location of **facility/site**: longitude: 71°19'1.8" latitude: 41° 47' 15.7"	Facility SIC code (s): 4471		Street: 1455 Fall River Avenue	
b) Name of facility/site **owner**: Cumberland Farms, Inc.			Town: Seekonk	
Email address of owner: OUdemba@cumberlandfarms.com			State: MA	Zip: 02771	County: Bristol
Telephone no. of facility/site **owner**: 781-828-4900					
Fax no. of facility/site **owner**: 781-755-9536			**Owner** is (check one) 1. Federal ☐ 2. State/Tribal ☐ 3. Private ☐ 4. other, ☒ if so, describe: Corporation	
Address of **owner** (if different from site):				
Street: 777 Dedham Street				
Town: Canton	State: MA	Zip: 02021	County: Norfolk	
c.) Legal name of **operator**: Corporate Environmental Advisors, Inc.	**Operator** telephone no.: 508-835-8822			
	Operator fax no.: 508-835-8812		**Operator** email: smasse@cea-inc.com	
Operator contact name and title: Scott Masse, Project Manager				
Address of **operator** (if different from owner): same as owner	Street: 127 Hartwell Street			
Town: West Boylston	State: MA	Zip: 01583	County: Worcester	

d) Check "yes" or "no" for the following:

1. Has a prior NPDES permit exclusion been granted for the discharge? Yes No ☒ , if "yes," number:

2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ☐ No ☒, if "yes," date and tracking #:

3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ☒ No ☐

4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ☒ No ☐

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes ☐ No ☒, If "yes," please list: 1. site identification # assigned by the state of NH or MA: 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EP A permit, including: 1. multi-sector storm water general permit? Yes ☐ No ☒, if Y, number: 2. phase I or II construction storm water general permit? Yes ☐ No ☒, if Y, number: 3. individual NPDES permit? Yes ☐ No ☒, if Y, number: 4. any other water quality related permit? Yes ☐ No ☒, if Y, number:

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

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

Dewatering during the gasoline service station raze and re-build 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, W/s)? Max. flow 0.111 ft^3/sec Average flow 0.111 ft^3/sec Is maximum flow a **design value**? Yes ☐ No ☒, For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1 :long.71 °19'1.8" lat. 41° 47'15.7" ; 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): N/A	5) Is the discharge intermittent ☒ Or seasonal ☐ ? Is discharge ongoing Yes No ☒ Discharge is only during construction activities

c) Expected dates of discharge (mm/dd/yy): start 01/09/06 end March 2006

d) Please attach a line drawing or flow schematic showing water flow through the facility including: See attached figure 3.

1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).

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

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

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

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

PARAMETER	Believe Absent	Believe Present	#of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg/day)	concentration (ug/l)	mass (kg/day)
1. Total Suspended Solids			1	GRAB	SM 2540D	10,000	52,000	23.34		
2. Total Residual Chlorine	√		1	GRAB	SM 4500-Cl	200	< 200	<0.089		
3. Total Petroleum Hydrocarbons	√		1	GRAB	1664	5,000	< 5,000	< 2.24		
4. Cyanide	√		1	GRAB	9012A	10	<10	<0.005		
5. Benzene		√	1	GRAB	8260B	0.5	<0.5	< 0.0002		
6. Toluene		√	1	GRAB	8260B	0.5	< 0.5	< 0.0002		
7. Ethylbenzene		√	1	GRAB	8260B	0.5	<0.5	< 0.0002		
8. (m,p,o) Xylenes		√	1	GRAB	8260B	1.0	<1.0	< 0.0005		
9. Total BTEX[4]		√	1	GRAB	8260B	-----	<1.0	<0.0005		

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg/day)	concentration (ug/l)	mass (kg/day)
10. Ethylene Dibromide (1,2- Dibromo-methane)	√		1	GRAB	504.1	0.02	< 0.02	<9E-5		
11. Methyl-tert-Butyl Ether (MtBE)		√	1	GRAB	8260B	0.5	32	0.014		
12. tert-Butyl Alcohol (TBA)	√		1	GRAB	8260B	20	<20	<0.0089		
13. tert-Amyl Methyl Ether (TAME)	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
14. Naphthalene	√		1	GRAB	8270C	5	< 5	< 0.0022		
15. Carbon Tetra-chloride	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
16. 1,4 Dichlorobenzene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
17.1,2 Dichlorobenzene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
18. 1,3 Dichlorobenzene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
19. 1,1 Dichloroethane	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
20. 1,2 Dichloroethane	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
21. 1,1 Dichloroethylene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
22. cis-1,2 Dichloro-ethylene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
23. Dichloromethane (Methylene Chloride)	√		1	GRAB	8260B	2.5	<2.5	<0.001		
24. Tetrachloroethylene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		

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 (ug/l)	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg/day)	concentration (ug/l)	mass (kg/day)
25. 1,1,1 Trichloroethane	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
26. 1,1,2 Trichloroethane	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
27. Trichloroethylene	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
28. Vinyl Chloride	√		1	GRAB	8260B	0.5	< 0.5	< 0.0002		
29. Acetone	√		1	GRAB	8260B	10	< 10	<0.0045		
30. 1,4 Dioxane	√		1	GRAB	8260B	500	<500	<0.224		
31. Total Phenols	√		1	GRAB	8270C	5	< 5	<0.00022		
32. Pentachlorophenol	√		1	GRAB	8270C	5	<5	<0.00022		
33. Total Phthalates [6] (phthalate esthers)	√		1	GRAB	8270C	5	All phthalates are BDL see lab report	-		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	√		1	GRAB	8270C	5	<5	<0.00022		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	√		1	GRAB	8270C	35	< 35	<0.015		
a. Benzo(a) Anthracene	√		1	GRAB	8270C	5	<5	<0.00022		
b. Benzo(a) Pyrene	√		1	GRAB	8270C	5	<5	<0.00022		
c. Benzo(b)Fluoranthene	√		1	GRAB	8270C	5	<5	<0.00022		
d. Benzo(k) Fluoranthene	√		1	GRAB	8270C	5	<5	<0.00022		
e. Chrysene	√		1	GRAB	8270C	5	<5	<0.00022		

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	#of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg/day)	concentration (ug/l)	mass (kg/day)
f. Dibenzo(a,h) anthracene	√		1	GRAB	8270C	5	<5	<0.00022		
g. Indeno(1,2,3-cd) Pyrene	√		1	GRAB	8270C	5	<5	<0.00022		
36. Total Group II Polycyclic Aromatic Hydrocarbons (pAR)	√		1	GRAB	8270C	45	< 45	<0.020		
h. Acenaphthene	√		1	GRAB	8270C	5	<5	<0.00022		
i. Acenaphthylene	√		1	GRAB	8270C	5	<5	<0.00022		
j. Anthracene	√		1	GRAB	8270C	5	<5	<0.00022		
k. Benzo(ghi) Perylene	√		1	GRAB	8270C	5	<5	<0.00022		
I. Fluoranthene	√		1	GRAB	8270C	5	<5	<0.00022		
m. Fluorene	√		1	GRAB	8270C	5	<5	<0.00022		
n. Naphthalene-	√		1	GRAB	8270C	5	<5	<0.00022		
o. Phenanthrene	√		1	GRAB	8270C	5	<5	<0.00022		
p. Pyrene	√		1	GRAB	8270C	5	<5	<0.00022		
37. Total Polychlorinated Biphenyls (PCBs)	√		1	GRAB	8082	0.2	<0.2	<0.00009		
38. Antimony	√		1	GRAB	7041	60	<60	<0.026		
39. Arsenic	√		1	GRAB	6010B	10	<10	<0.005		
40. Cadmium	√		1	GRAB	6010B	5	< 5	<0.00022		
41. Chromium III (1)	√		1	GRAB	6010B	10	<10	<0.005		
42. Chromium VI	√		1	GRAB	calculated	Not Detected	Not Detected	-		

NOTES: (1) Chromium III = Total Chromium – Hexavalent Chromium

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 (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg/day)	concentration (ug/l)	mass (kg/day)
43. Copper (2)	√		1	GRAB	6010B	10	<10	<0.005		
44. Lead		√	1	GRAB	6010B	10	20	0.009		
45. Mercury	√		1	GRAB	7470A	0.20	<0.20	<0.00009		
46. Nickel	√		1	GRAB	6010B	40	< 40	0.018		
47. Selenium	√		1	GRAB	6010B	50	<50	<0.022		
48. Silver	√		1	GRAB	6010B	7	<7	<0.0031		
49. Zinc	√		1	GRAB	6010B	200	< 200	< 0.089		
50. Iron		√	1	GRAB	6010B	100	13,000	5.83		
Other (describe):	----	----	----	----	----	----	----	----	----	----

NOTES: (2) Total Copper, Instrument Detection Level (IDL) = 5 ug/l

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

Step 1: Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ☒ N ☐	If yes, which metals? Iron, Lead
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: Iron, Lead DF: _____	Look up the limit calculated at the corresponding dilution factor in **Appendix IV**. Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☒ N ☐ If "Yes," list which metals: Iron, Lead

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:
See Figure 3.

b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☒	Air stripper ☐	Oil/water separator ☐	Equalization tanks ☐	Bag filter ☒	GAC filter ☒
	Chlorination ☐	Dechlorination ☐	Other (please describe):			

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 25 GPM Maximum flow rate of treatment system 100 GPM Design flow rate of treatment system 100 GPM

d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Not Applicable

5. Receiving surface water(s). Please provide information about the receiving water (s) using separate sheets as necessary, including:

a) Identify the discharge pathway:	Direct ☐	Within facility ☐	Storm drain ☒	River/brook ☐	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:
Discharge to an on-site stormwater catch basin. No information was available from the DPW about the receiving waters.

c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water:
1. For multiple discharges, number the discharges sequentially.
2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water
The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.

d) Provide the state water quality classification of the receiving water ___.

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water NA cfs

Please attach any calculation sheets used to support stream flow and dilution calculations. NA.

f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ☐ No ☐ If yes, for which pollutant(s)? NA

Is there a TMDL? Yes ☐ No ☐ If yes, for which pollutant(s)?

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

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes ☐ No ☒
Has any consultation with the federal services been completed? Yes ☐ No ☒ or is consultation underway? Yes ☐ No ☒

What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one): Not applicable

a "no jeopardy" opinion? ☐ or written concurrence ☐ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?

Yes ☐ No ☒ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes ☐ No ☒

7. Supplemental information. :

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

See cover letter.

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:

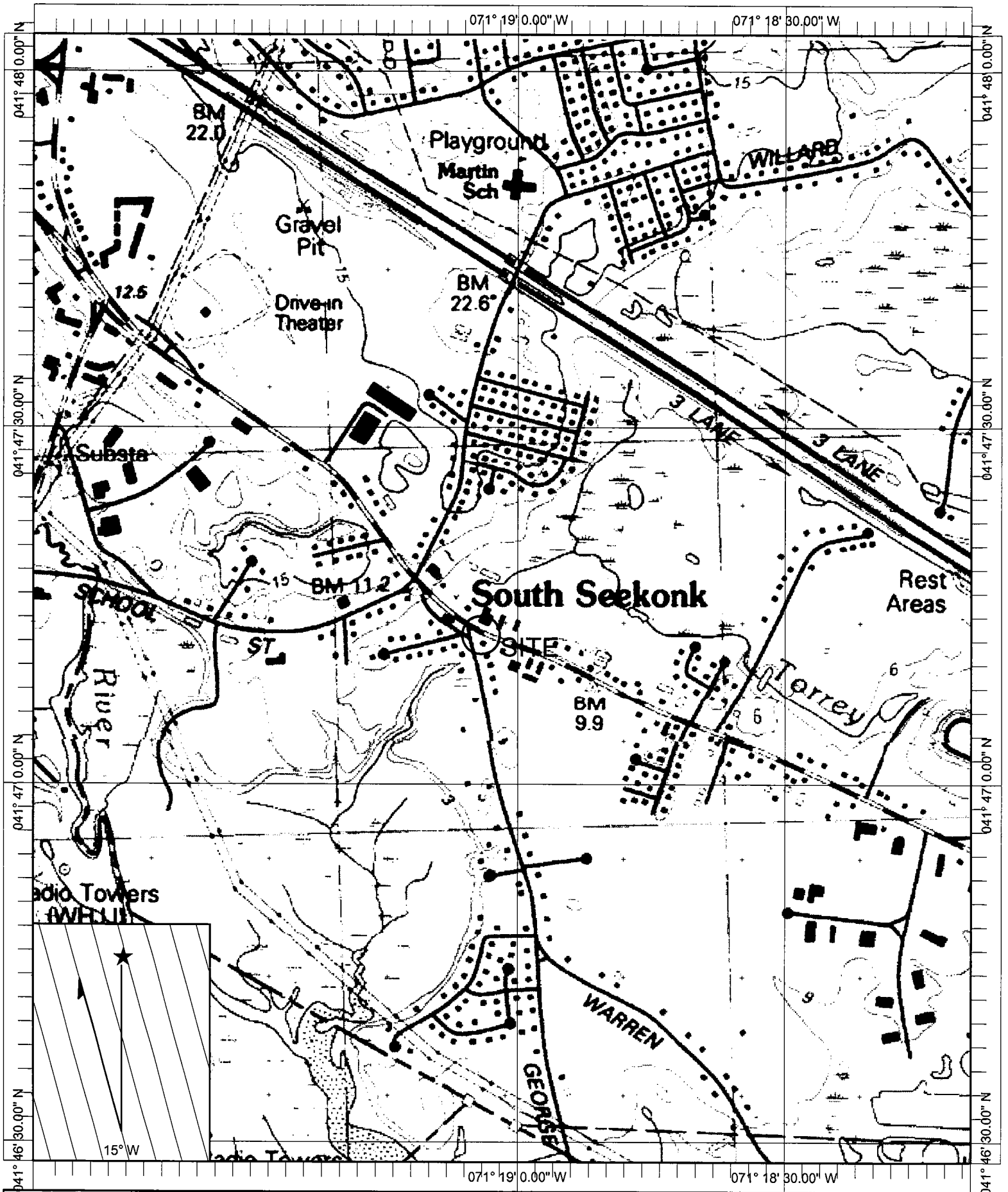
I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage 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: Cumberland Farms Inc, Store # 2157, 1455 Fall River Avenue, Seekonk, MA 02771

Operator signature: CONSULTANT FOR CUMBERLAND FARMS, INC.

Title: Scott A. Masse, Project Manager

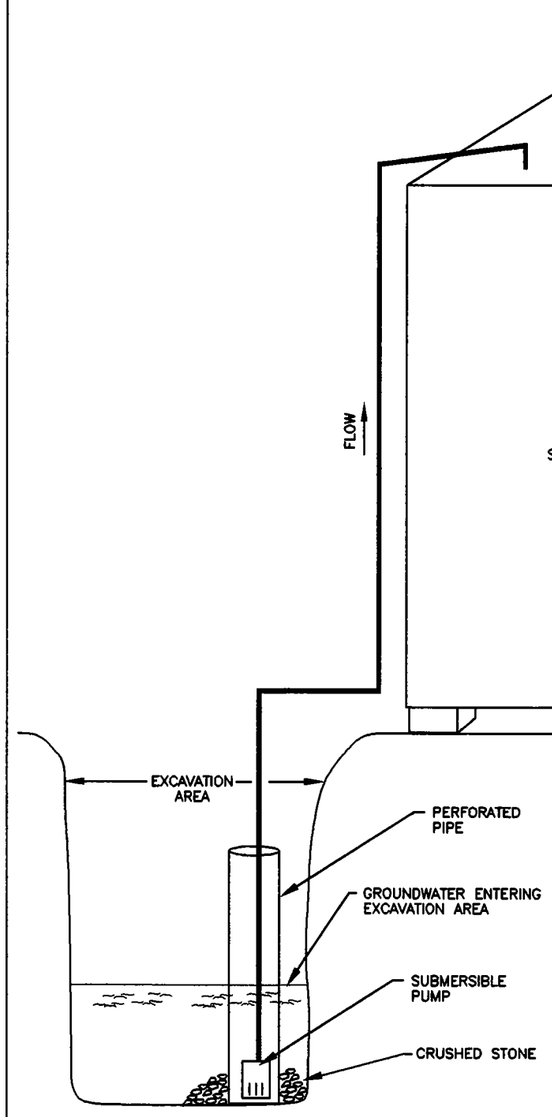
Date: 12/07/05

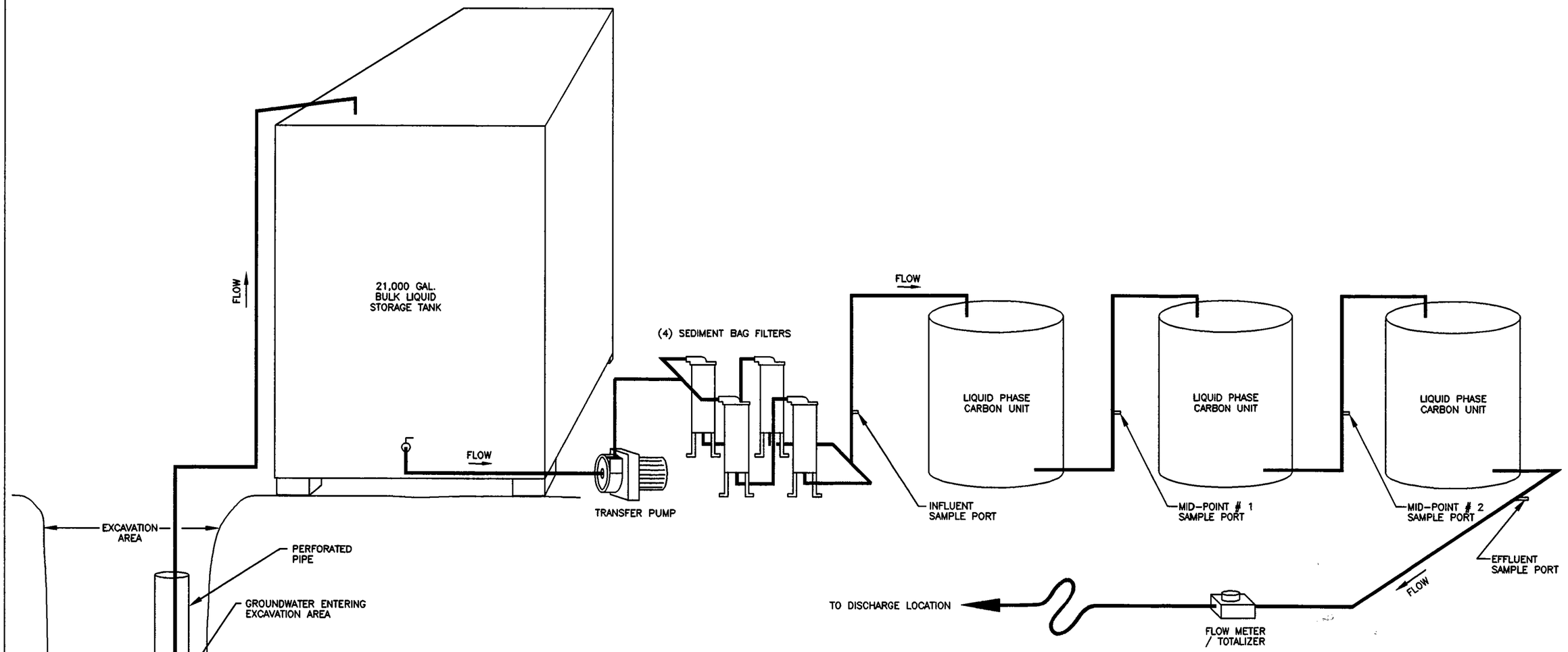


Name: PROVIDENCE
Date: 5/14/2004
Scale: 1 inch equals 1000 feet

Location: 041° 47' 15.7" N 071° 19' 01.8" W
Caption: FIGURE 1 SITE LOCUS
CFI SEEKONK
1455 FALL RIVER AVE

Copyright (C) 1997, Maptech, Inc.





CEA CORPORATE ENVIRONMENTAL ADVISORS, INC.

Assessments – Remediation – Emergency Response

127 HARTWELL ST. W.BOYLSTON, MA.

SCALE: NOT TO SCALE		DR. BY: K. HAZEL
DATE: 12/21/05	APP. BY: AL	JOB NO.: 3436-97

EXCAVATION DEWATERING PROCESS & INSTRUMENTATION DIAGRAM

CFI

1455 FALL RIVER AVE. SEEKONK, MA.

FIGURE 3

MA DEP - Bureau of Waste Site Cleanup

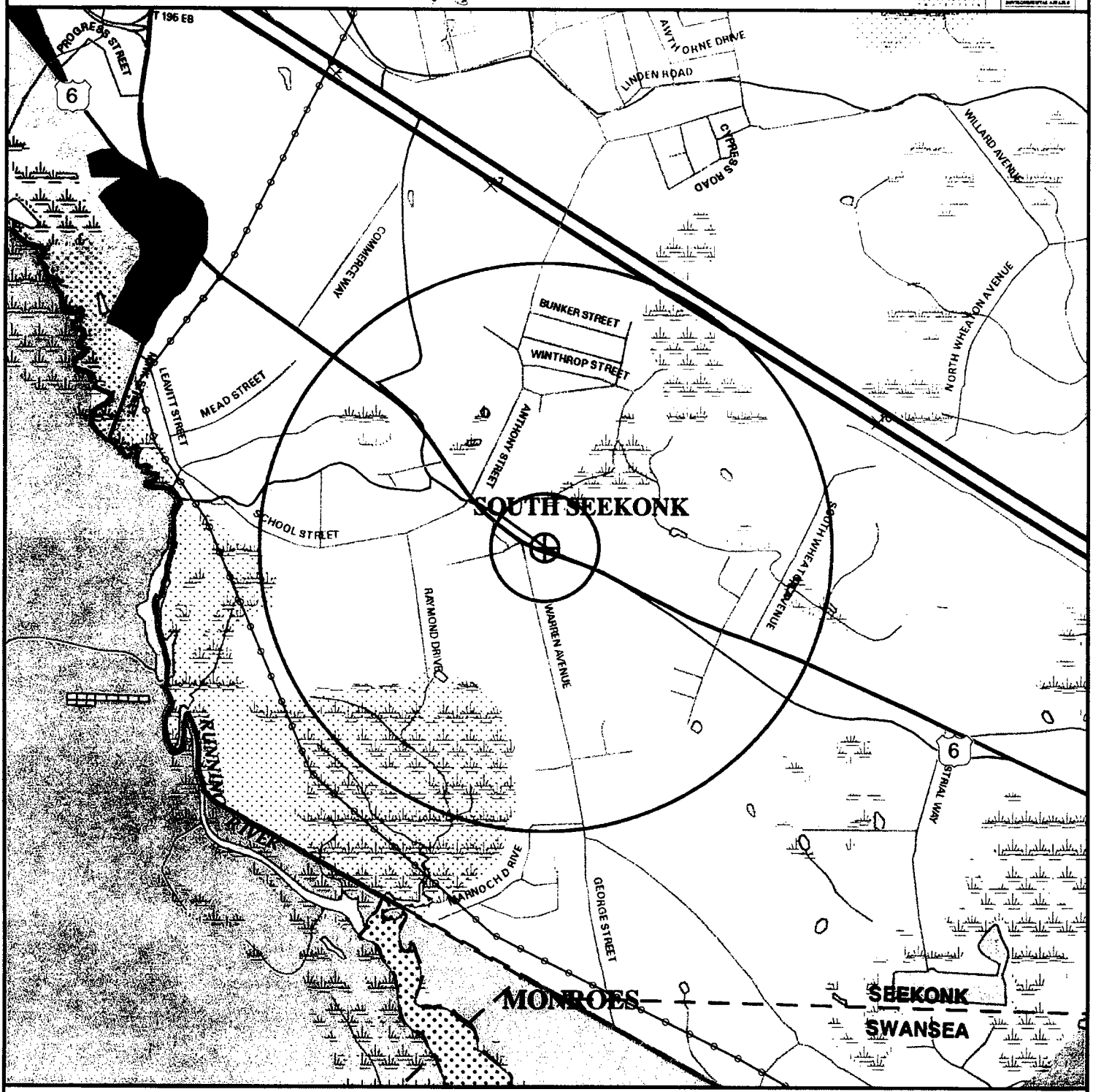
Site Scoring Map: 500 feet & 0.5 Mile Radii

SITE NAME:
Cumberland Farms Store 2157
1455 Fall River Avenue
SEEKONK, MA
414713n 711903ew

Site Location

The information shown on this map is the best available at the date of printing. Please refer to the data source descriptors document.

MASS GIS — Massachusetts Geographic Information System
Massachusetts Executive Office of Environmental Affairs - 2003



Roads: Limited Access, Divided, Major Road, Connector, Street, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dams
Potentially Productive Aquifers: Medium,High Yield
Non-Potential Drinking Water Source Area: Medium,High Yield

EPA Sole Source Aquifer; FEMA 100-year floodplain
Public Water Supplies: Ground,Surface,Non Community
Approved Zone2; IWPA; Surface Water Supply Zone A
Hydrography: Water Features,Public Surface Water Supply
Wetlands: Fresh,Salt,NHESP Wetlands Habitat
Protected Open Space; ACEC
DEP Permitted Solid Waste Facilities; Certified Vernal Pools

N W E S

SCALE 1:15000

0 1/2 0 1/2 MILES
KILOMETERS[1]

July 25, 2003

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

Telephone: (508) 759-4441
FAX: (508) 759-4475

GROUNDWATER ANALYTICAL

e-mail

To:	Scott Masse	**From:**	Eric Jensen
	Corporate Environmental Advisors	**Pages:**	14
e-mail:	smasse@cea-inc.com	**Date:**	12/21/2005 04:34:55 PM
Re:	Project 90198	**CC:**	

NOTE

The format or contents of this e-mail transmission may not meet all applicable National Environmental Laboratory Accreditation Conference (NELAC) Standards for data reporting.

- **Comments:**

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GROUNDWATER ANALYTICAL

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December 21, 2005

Mr. Scott Masse
Corporate Environmental Advisors, Inc.
127 Hartwell Street
W. Boylston, MA 01583

LABORATORY REPORT

Project: **CFI #2157 Seekonk/3436.97**
Lab ID: **90198**
Received: **12-19-05**

Dear Scott:

Enclosed are the analytical results for the above referenced project. The project was processed for Rush 48 Hour 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,

Eric H. Jensen
Operations Manager

EHJ/kh
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project: **CFI #2157 Seekonk/3436.97**
Client: **Corporate Environmental Advisors, Inc.**
Lab ID: **90198**

Delivery: **Hand**
Airbill: **n/a**
Lab Receipt: **12-19-05**

Temperature: **5.2'C**
Chain of Custody: **Present**
Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-1	CEA-3		Aqueous	12/19/05 11:45	EPA 8260B Volatile Organics with Oxygenates			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C352567	40 mL VOA Vial	Industrial	BX8944	HCl	R-3722E	08-19-03	n/a	
C350737	40 mL VOA Vial	Industrial	BX9947	HCl	R-3857D	12-17-03	n/a	
C350736	40 mL VOA Vial	Industrial	BX9947	HCl	R-3857D	12-17-03	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-2	CEA-3		Aqueous	12/19/05 11:45	EPA 504.1 EDB and DBCP			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C748396	40 mL VOA Vial	n/a	n/a	HCl	n/a	n/a	n/a	
C748395	40 mL VOA Vial	n/a	n/a	HCl	n/a	n/a	n/a	
C748394	40 mL VOA Vial	n/a	n/a	HCl	n/a	n/a	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-3	CEA-3		Aqueous	12/19/05 11:45	EPA 8270C Semivolatile Organics			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C748398	1 L Amber Glass	n/a	n/a	None	n/a	n/a	n/a	
C748397	1 L Amber Glass	n/a	n/a	None	n/a	n/a	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-4	CEA-3		Aqueous	12/19/05 11:45	EPA 8082 PCBs			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C748406	1 L Amber Glass	n/a	n/a	None	n/a	n/a	n/a	
C748405	1 L Amber Glass	n/a	n/a	None	n/a	n/a	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-5	CEA-3		Aqueous	12/19/05 11:45	EPA 6010B Cr As Cd Cu Fe Ni Ag Zn Total EPA 7041 Antimony by GFAA Sb EPA 7421 Lead by GFAA EPA 7470A Hg Total EPA 7740 Selenium by GFAA EPA 7196/EPA 6010B Trivalent Chromium			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C748404	500 mL Plastic	n/a	n/a	HNO3	n/a	n/a	n/a	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-6	CEA-3		Aqueous	12/19/05 11:45	EPA 1664 Hexane Extractable Material			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C633484	1 L Amber Glass	Proline	BX16596	H2SO4	R-4272V	05-04-05	n/a	
C615924	1 L Amber Glass	Proline	BX18336	H2SO4	n/a	n/a	10-11-05	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-7	CEA-3		Aqueous	12/19/05 11:45	EPA 7196A Hexavalent Chromium			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C638299	250 mL Plastic	Greenwood	BX18133	None	n/a	n/a	10-14-05	

Lab ID	Field ID		Matrix	Sampled	Method			Notes
90198-8	CEA-3		Aqueous	12/19/05 11:45	SM 2540 D Total Suspended Solids			
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**	
C748403	1L Plastic	n/a	n/a	None	n/a	n/a	n/a	

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Sample Receipt Report (Continued)

Project: **CFI #2157 Seekonk/3436.97**
Client: **Corporate Environmental Advisors, Inc.**
Lab ID: **90198**

Delivery: **Hand**
Airbill: **n/a**
Lab Receipt: **12-19-05**

Temperature: **5.2'C**
Chain of Custody: **Present**
Custody Seal(s): **n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
90198-9	CEA-3		Aqueous	12/19/05 11:45	SM 4500-Cl G Total Residual Chlorine				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C660843	250 mL Glass	Proline	BX18135	None	n/a	n/a	10-14-05		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
90198-10	CEA-3		Aqueous	12/19/05 11:45	EPA 9012A Total Cyanide				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C698633	500 mL Plastic	Greenwood	BX18747	NaOH	R-4387B	10-12-05	10-14-05		

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EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	CEA-3	Matrix:	Aqueous
Project:	CFI #2157 Seekonk/3436.97	Container:	40 mL VOA Vial
Client:	Corporate Environmental Advisors Inc.	Preservation:	HCl/Cool
Laboratory ID:	90198-01	QC Batch ID:	VM7-1964-W
Sampled:	12-19-05 11:45	Instrument ID:	MS-7 Agilent 6890
Received:	12-19-05 13:32	Sample Volume:	25 mL
Analyzed:	12-21-05 03:43	Dilution Factor:	1
Analyst:	CCT		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	0.5
74-87-3	Chloromethane	BRL		ug/L	0.5
75-01-4	Vinyl Chloride	BRL		ug/L	0.5
74-83-9	Bromomethane	BRL		ug/L	0.5
75-00-3	Chloroethane	BRL		ug/L	0.5
75-69-4	Trichlorofluoromethane	BRL		ug/L	0.5
60-29-7	Diethyl Ether	BRL		ug/L	2
75-35-4	1,1-Dichloroethene	BRL		ug/L	0.5
76-13-1	1,1,2-Trichlorotrifluoroethane	BRL		ug/L	5
67-64-1	Acetone	BRL		ug/L	10
75-15-0	Carbon Disulfide	BRL		ug/L	5
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	0.5
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	32		ug/L	0.5
75-34-3	1,1-Dichloroethane	BRL		ug/L	0.5
594-20-7	2,2-Dichloropropane	BRL		ug/L	0.5
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	0.5
78-93-3	2-Butanone (MEK)	BRL		ug/L	5
74-97-5	Bromochloromethane	BRL		ug/L	0.5
109-99-9	Tetrahydrofuran (THF)	BRL		ug/L	5
67-66-3	Chloroform	BRL		ug/L	0.5
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	0.5
56-23-5	Carbon Tetrachloride	BRL		ug/L	0.5
563-58-6	1,1-Dichloropropene	BRL		ug/L	0.5
71-43-2	Benzene	BRL		ug/L	0.5
107-06-2	1,2-Dichloroethane	BRL		ug/L	0.5
79-01-6	Trichloroethene	BRL		ug/L	0.5
78-87-5	1,2-Dichloropropane	BRL		ug/L	0.5
74-95-3	Dibromomethane	BRL		ug/L	0.5
75-27-4	Bromodichloromethane	BRL		ug/L	0.5
123-91-1	1,4-Dioxane	BRL		ug/L	500
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	0.5
108-10-1	4-Methyl-2-Pentanone (MIBK)	BRL		ug/L	5
108-88-3	Toluene	BRL		ug/L	0.5
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	0.5
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	0.5
127-18-4	Tetrachloroethene	BRL		ug/L	0.5
142-28-9	1,3-Dichloropropane	BRL		ug/L	0.5
591-78-6	2-Hexanone	BRL		ug/L	5
124-48-1	Dibromochloromethane	BRL		ug/L	0.5
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.5
108-90-7	Chlorobenzene	BRL		ug/L	0.5
630-20-6	1,1,1,2-Tetrachloroethane	BRL		ug/L	0.5
100-41-4	Ethylbenzene	BRL		ug/L	0.5
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	0.5
95-47-6	*ortho*-Xylene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

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

Field ID:	**CEA-3**	Matrix:	**Aqueous**
Project:	**CFI #2157 Seekonk/3436.97**	Container:	**40 mL VOA Vial**
Client:	**Corporate Environmental Advisors Inc.**	Preservation:	**HCl/Cool**
Laboratory ID:	**90198-01**	QC Batch ID:	**VM7-1964-W**
Sampled:	**12-19-05 11:45**	Instrument ID:	**MS-7 Agilent 6890**
Received:	**12-19-05 13:32**	Sample Volume:	**25 mL**
Analyzed:	**12-21-05 03:43**	Dilution Factor:	**1**
Analyst:	**CCT**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	2		ug/L	0.5
108-86-1	Bromobenzene	BRL		ug/L	0.5
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	0.5
96-18-4	1,2,3-Trichloropropane	BRL		ug/L	0.5
103-65-1	*n*-Propylbenzene	1		ug/L	0.5
95-49-8	2-Chlorotoluene	BRL		ug/L	0.5
108-67-8	1,3,5-Trimethylbenzene	BRL		ug/L	0.5
106-43-4	4-Chlorotoluene	BRL		ug/L	0.5
98-06-6	*tert*-Butylbenzene	1		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	1		ug/L	0.5
135-98-8	*sec*-Butylbenzene	2		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	1		ug/L	0.5
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	0.5
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	0.5
104-51-8	*n*-Butylbenzene	BRL		ug/L	0.5
96-12-8	1,2-Dibromo-3-chloropropane	BRL		ug/L	0.5
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	0.5
87-68-3	Hexachlorobutadiene	BRL		ug/L	0.5
91-20-3	Naphthalene	BRL		ug/L	0.5
87-61-6	1,2,3-Trichlorobenzene	BRL		ug/L	0.5
75-65-0	*tert*-Butyl Alcohol (TBA)	BRL		ug/L	20
108-20-3	Di-isopropyl Ether (DIPE)	BRL		ug/L	0.5
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	BRL		ug/L	0.5
994-05-8	*tert*-Amyl Methyl Ether (TAME)	BRL		ug/L	0.5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	9.1	**91 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	9.7	**97 %**	70 - 130 %
Toluene-d_8	10	9.3	**93 %**	70 - 130 %
4-Bromofluorobenzene	10	8.8	**88 %**	70 - 130 %

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).
Sample preparation performed by EPA Method 5030B.

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

EPA Method 504.1
EDB and DBCP by GC/ECD

Field ID:	**CEA-3**	Matrix:	**Aqueous**
Project:	**CFI #2157 Seekonk/3436.97**	Container:	**40 mL VOA Vial**
Client:	**Corporate Environmental Advisors Inc.**	Preservation:	**Cool**
Laboratory ID:	**90198-02**	QC Batch ID:	**PV-0809-E**
Sampled:	**12-19-05 11:45**	Instrument ID:	**GC-5 HP 5890**
Received:	**12-19-05 13:32**	Sample Volume:	**34 mL**
Extracted:	**12-20-05 17:00**	Final Volume:	**1 mL**
Analyzed:	**12-20-05 19:46**	Dilution Factor:	**1**
Analyst:	**CRL**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
106-93-4	1,2-Dibromoethane (EDB)	BRL		ug/L	0.02
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	BRL		ug/L	0.02

Method Reference: Methods for the Determination of Organic Compounds in Drinking Water, Supplement III, US EPA, EPA-600/R-95/131 (1995). Method Revision 1.1.

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.

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EPA Method 8270C
Semivolatile Organics by GC/MS

Field ID:	CEA-3	Matrix:	Aqueous
Project:	CFI #2157 Seekonk/3436.97	Container:	1 L Amber Glass
Client:	Corporate Environmental Advisors Inc.	Preservation:	Cool
Laboratory ID:	90198-03	QC Batch ID:	SV-1801-F
Sampled:	12-19-05 11:45	Instrument ID:	MS-3 HP 5890
Received:	12-19-05 13:32	Sample Volume:	1000 mL
Extracted:	12-20-05 07:00	Final Volume:	1 mL
Analyzed:	12-21-05 13:12	Dilution Factor:	1
Analyst:	CMM		

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

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

Field ID:	CEA-3	Matrix:	Aqueous
Project:	CFI #2157 Seekonk/3436.97	Container:	1 L Amber Glass
Client:	Corporate Environmental Advisors Inc.	Preservation:	Cool
Laboratory ID:	90198-03	QC Batch ID:	SV-1801-F
Sampled:	12-19-05 11:45	Instrument ID:	MS-3 HP 5890
Received:	12-19-05 13:32	Sample Volume:	1000 mL
Extracted:	12-20-05 07:00	Final Volume:	1 mL
Analyzed:	12-21-05 13:12	Dilution Factor:	1
Analyst:	CMM		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
84-66-2	Diethyl phthalate	BRL		ug/L	5
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/L	5
86-73-7	Fluorene	BRL		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	BRL		ug/L	5
120-12-7	Anthracene	BRL		ug/L	5
86-74-8	Carbazole	BRL		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	Benzo[a]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	Benzo[b]fluoranthene	BRL		ug/L	5
207-08-9	Benzo[k]fluoranthene	BRL		ug/L	5
50-32-8	Benzo[a]pyrene	BRL		ug/L	5
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL		ug/L	5
53-70-3	Dibenzo[a,h]anthracene	BRL		ug/L	5
191-24-2	Benzo[g,h,i]perylene	BRL		ug/L	5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	200	110	57 %	15 - 110 %
Phenol-d5	200	93	46 %	15 - 110 %
Nitrobenzene-d5	100	78	78 %	30 - 130 %
2-Fluorobiphenyl	100	87	87 %	30 - 130 %
2,4,6-Tribromophenol	200	220	109 %	15 - 110 %
Terphenyl-d14	100	100	105 %	30 - 130 %

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.

◊ Analyzed as Azobenzene.

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

Field ID:	**CEA-3**	Matrix:	**Aqueous**
Project:	**CFI #2157 Seekonk/3436.97**	Container:	**1 L Amber Glass**
Client:	**Corporate Environmental Advisors Inc.**	Preservation:	**Cool**
Laboratory ID:	**90198-04**	QC Batch ID:	**PB-1192-F**
Sampled:	**12-19-05 11:45**	Instrument ID:	**GC-6 HP 5890**
Received:	**12-19-05 13:32**	Sample Weight:	**1000 mL**
Extracted:	**12-21-05 12:00**	Final Volume:	**1 mL**
Cleaned Up:	**12-21-05 13:00**	Dilution Factor:	**1**
Analyzed:	**12-21-05 15:38**		
Analyst:	**MJB**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
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
37324-23-5	Aroclor 1262 †	BRL		ug/L	0.2
11100-14-4	Aroclor 1268 †	BRL		ug/L	0.2

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	0.20	0.18	**88 %**	30 - 150 %
	Decachlorobiphenyl	0.20	0.19	**95 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	0.20	0.17	**85 %**	30 - 150 %
	Decachlorobiphenyl	0.20	0.19	**94 %**	30 - 150 %

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.

† Non-target analyte. Result is based on a single mid-range calibration standard.

GROUNDWATER ANALYTICAL

Trace Metals

Field ID:	**CEA-3**	Matrix:	**Aqueous**
Project:	**CFI #2157 Seekonk/3436.97**	Container:	**500 mL Plastic**
Client:	**Corporate Environmental Advisors, Inc.**	Preservation:	**HNO3 / Cool**
Laboratory ID:	**90198-05**	Preserved:	**12-19-05 11:45**
Sampled:	**12-19-05 11:45**		
Received:	**12-19-05 13:32**		

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B[1]	MB-1850-W	EPA 3010A	12-20-05 08:53	50 mL	ICP-1 PE 3000	MWR
EPA 7470A[3]	MP-1778-W	EPA 7470A	12-20-05 11:15	25 mL	CVAA-1 PE FIMS	MFP

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-36-0	Antimony, Total	BRL		mg/L	0.06	1	12-21-05 13:34	EPA 6010B[1]
7440-38-2	Arsenic, Total	BRL		mg/L	0.01	1	12-21-05 13:34	EPA 6010B[1]
7440-43-9	Cadmium, Total	BRL		mg/L	0.005	1	12-21-05 13:34	EPA 6010B[1]
7440-47-3	Chromium, Total	BRL		mg/L	0.01	1	12-21-05 13:34	EPA 6010B[1]
7440-50-8	Copper, Total	BRL		mg/L	0.025	1	12-21-05 13:34	EPA 6010B[1]
7439-89-6	Iron, Total	13		mg/L	0.1	1	12-21-05 13:34	EPA 6010B[1]
7439-92-1	Lead, Total	0.02		mg/L	0.01	1	12-21-05 13:34	EPA 6010B[1]
7439-97-6	Mercury, Total	BRL		mg/L	0.0002	1	12-20-05 16:45	EPA 7470A[3]
7440-02-0	Nickel, Total	BRL		mg/L	0.04	1	12-21-05 13:34	EPA 6010B[1]
7782-49-2	Selenium, Total	BRL		mg/L	0.05	1	12-21-05 13:34	EPA 6010B[1]
7440-22-4	Silver, Total	BRL		mg/L	0.007	1	12-21-05 13:34	EPA 6010B[1]
7440-28-0	Thallium, Total	BRL		mg/L	0.02	1	12-21-05 13:34	EPA 6010B[1]
7440-66-6	Zinc, Total	BRL		mg/L	0.2	1	12-21-05 13:34	EPA 6010B[1]
n/a	Chromium, Trivalent	BRL		mg/L	0.01	1	12-21-05 13:34	EPA 6010B[1]

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996).

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DF Dilution Factor.

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: **CEA-3**
Project: **CFI #2157 Seekonk/3436.97**
Client: **Corporate Environmental Advisors, Inc.**

Matrix: **Aqueous**
Received: **12-19-05 13:32**

Lab ID: **90198-06** Sampled: **12-19-05 11:45** Container: **1 L Amber Glass** Preservation: **H2SO4/Cool**

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Oil and Grease, Total	BRL	mg/L	5	1	990 mL	12-20-05 15:10	HO-0200-W	EPA 1664	3	DEB

Lab ID: **90198-07** Sampled: **12-19-05 11:45** Container: **250 mL Plastic** Preservation: **Cool**

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Chromium, Hexavalent	BRL	mg/L	0.01	1	5 mL	12-19-05 21:31	HC-0210-W	EPA 7196A	1	DDW

Lab ID: **90198-08** Sampled: **12-19-05 11:45** Container: **1L Plastic** Preservation: **Cool**

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Solids, Total Suspended	52	mg/L	10	5	100 mL	12-21-05 12:09	TSS-1173-W	SM 2540 D	3	EB

Lab ID: **90198-09** Sampled: **12-19-05 11:45** Container: **250 mL Glass** Preservation: **Cool**

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Chlorine, Total Residual	BRL	mg/L	0.2	1	5 mL	12-19-05 21:30	TRC-0390-W	SM 4500-Cl G	2	UD

Lab ID: **90198-10** Sampled: **12-19-05 11:45** Container: **500 mL Plastic** Preservation: **NaOH/Cool**

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Cyanide, Total	BRL	mg/L	0.01	1	50 mL	12-20-05 16:15	TCN-1136-W	EPA 9012A	1	DDW

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: Lachat 8000 Autoanalyzer

2 Instrument ID: Milton Roy Spectronic 401

3 Instrument ID: Mettler AT 200 Balance