

Via USPS
Overnight Mail



CORPORATE ENVIRONMENTAL ADVISORS, INC.



March 16, 2006

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

MAG 9/02/13
GP.

**RE: EPA Remediation General Permit Notice of Intent
Former Texaco Service Station
37-41 Main Street
Kingston, MA
RTN 4-573**

Mr. Papadopolous:

On behalf of C.K. Smith & Co., Inc. (C.K. Smith), 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 during site redevelopment activities. This work is being conducted as part of Phase IV activities at the site under section 310 CMR 40.00874 of the Massachusetts Contingency Plan (MCP). **Figure 1**, Site Locus Map, shows the property location with respect to surrounding topography. **Figure 2**, Site Layout with Proposed Site Features, depicts pertinent site features as wells as the proposed construction.

Groundwater will be encountered during the installation of new underground storage tanks (USTs), removal of the existing USTs, and soil excavation related to the site raze and rebuild activities to be initiated at the site in April 2006. Once groundwater is encountered during excavation activities, a groundwater recovery sump will be placed in the excavation. A submersible pump will be placed in the sump to remove groundwater from the excavation and temporarily store the water 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 pump through an on-site water treatment system. Recovered groundwater will be pre-treated through two, 50-micron bag filters, in parallel, and then treated using two (2) 1,000-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 Main Street (Route 3A). The catch basin is connected to a series of catch basins along Main Street. The catch basins lead to an 18 inch diameter drain line that discharges to a drainage swale behind 43 Main Street. The drainage swale discharges to the adjacent wetlands. The catch basins and drain line are depicted in **Figure 2**.

www.cea-inc.com

CORPORATE HEADQUARTERS: HARTWELL BUSINESS PARK • 127 HARTWELL STREET • WEST BOYLSTON, MA 01583 • PHONE: 508-835-8822 • FAX: 508-835-8812

Solutions Since 1985

Treated water 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 one month. A dewatering schematic is provided in **Figure 3**. The NOI forms and supporting documentation are attached.

If this Remediation General Permit Notice of Intent has been prepared to your satisfaction please issue a Remediation General Permit for the proposed station rebuild activities.

If you have any questions or require additional information, please do not hesitate to contact the undersigned at (508)-835-8822.

Sincerely,
CORPORATE ENVIRONMENTAL ADVISORS, INC.



Jennifer Snay
Environmental Scientist II


Scott Masse
Project Manager

Figures

- | | |
|----------|---|
| Figure 1 | Site Locus |
| Figure 2 | Site Layout with Proposed Site Features |
| Figure 3 | Excavation Dewatering Process & Instrumentation Diagram |
| Figure 4 | MAGIS Map, February 27, 2004 |
| Figure 5 | MA Natural Heritage Atlas 11 th Edition, July 2003 |

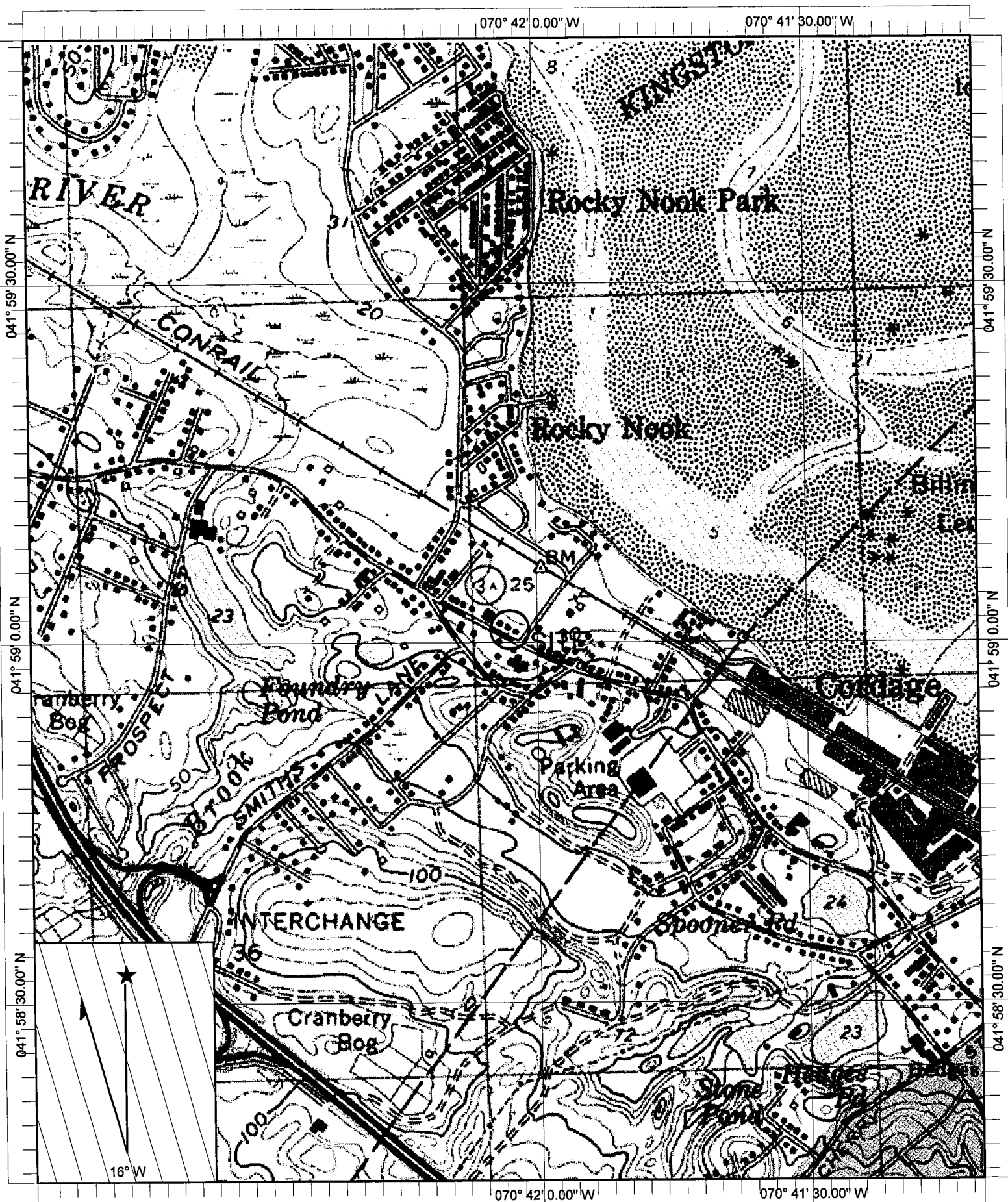
Attachments

- Attachment A: Notice of Intent Form
Attachment B: Laboratory Analytical Data

cc: Ms. Judy Smith, C.K. Smith & Co., Inc.
CEA File 3520-97

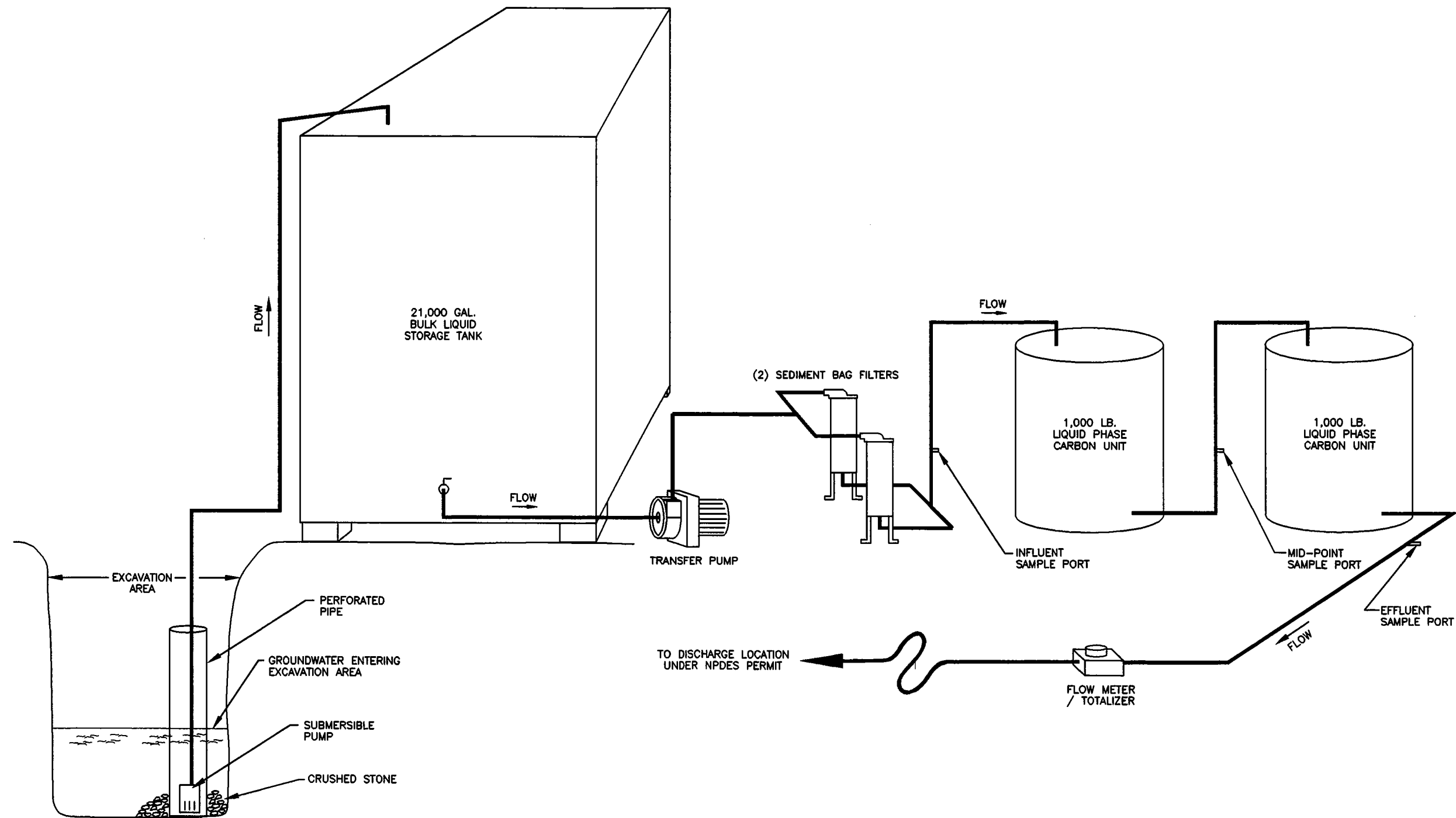


FIGURES



Name: PLYMOUTH
 Date: 1/7/2005
 Scale: 1 inch equals 1000 feet

Location: 041° 59' 02.9" N 070° 42' 03.7" W
 Caption: C. K. Smith
 39 Main Street
 Kingston, Massachusetts



CEA CORPORATE ENVIRONMENTAL ADVISORS, INC. Assessments - Remediation - Emergency Response 127 HARTWELL ST. W.BOYLSTON, MA.		
SCALE: NOT TO SCALE		DR. BY: K. HAZEL
DATE: 3/13/06	APP. BY: AL	JOB NO.: 3520-97
EXCAVATION DEWATERING PROCESS & INSTRUMENTATION DIAGRAM		
CK SMITH		FIGURE 3
39-41 MAIN STREET KINGSTON, MA.		

MA DEP - Bureau of Waste Site Cleanup

Site Scoring Map: 500 feet & 0.5 Mile Radii

SITE NAME:

CK Smith

37 Main Street

KINGSTON, MA 02364

4649120n 359100ew

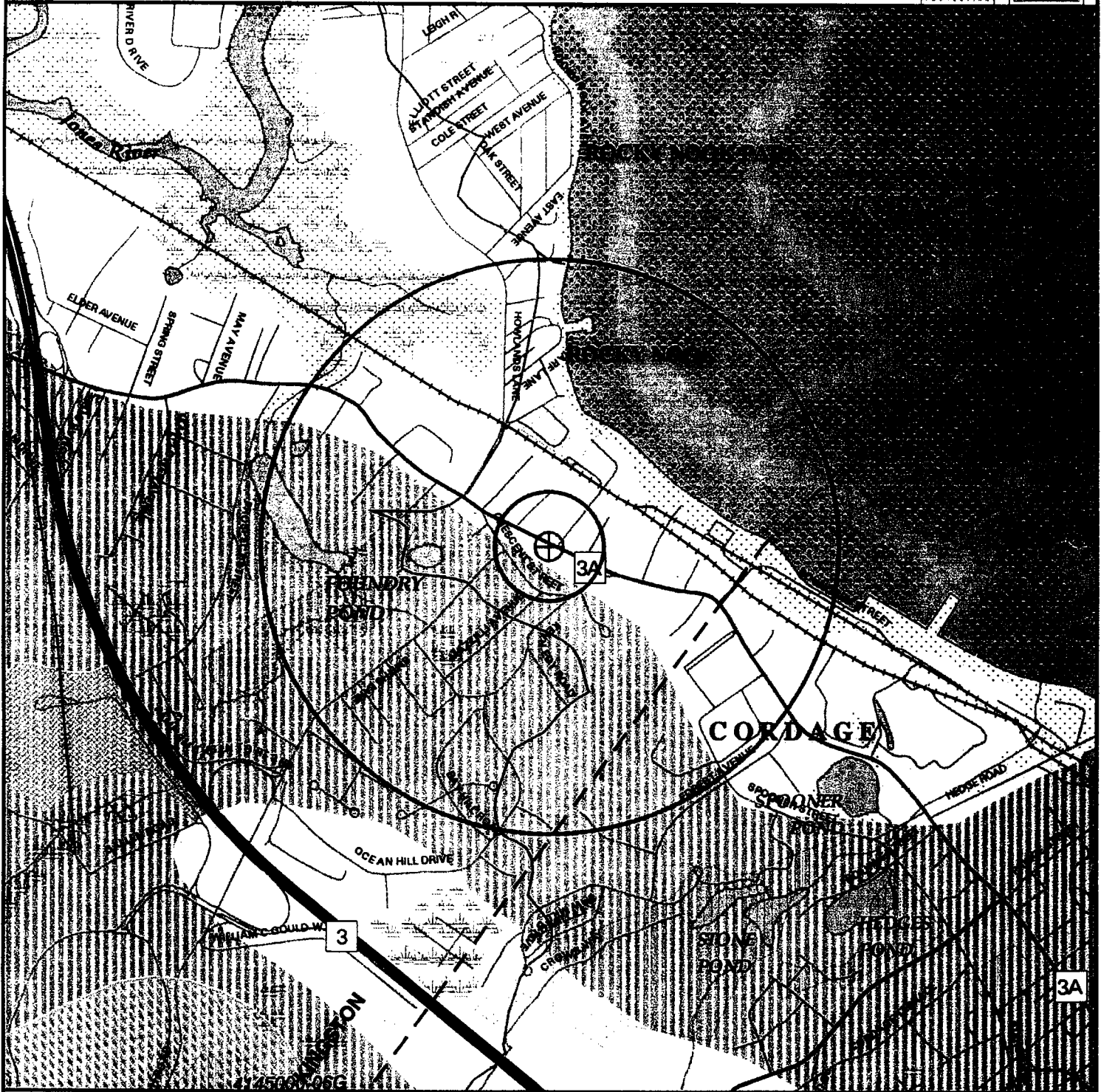
Site Location



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



Massachusetts
Geographic
Information
System



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 Zone 2; MWPA; Surface Water Supply Zone A

Hydrography: Water Features, Public Surface Water Supply

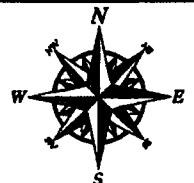
Wetlands: Fresh, Salt, NHESP Wetlands Habitat

Protected Open Space; ACEC

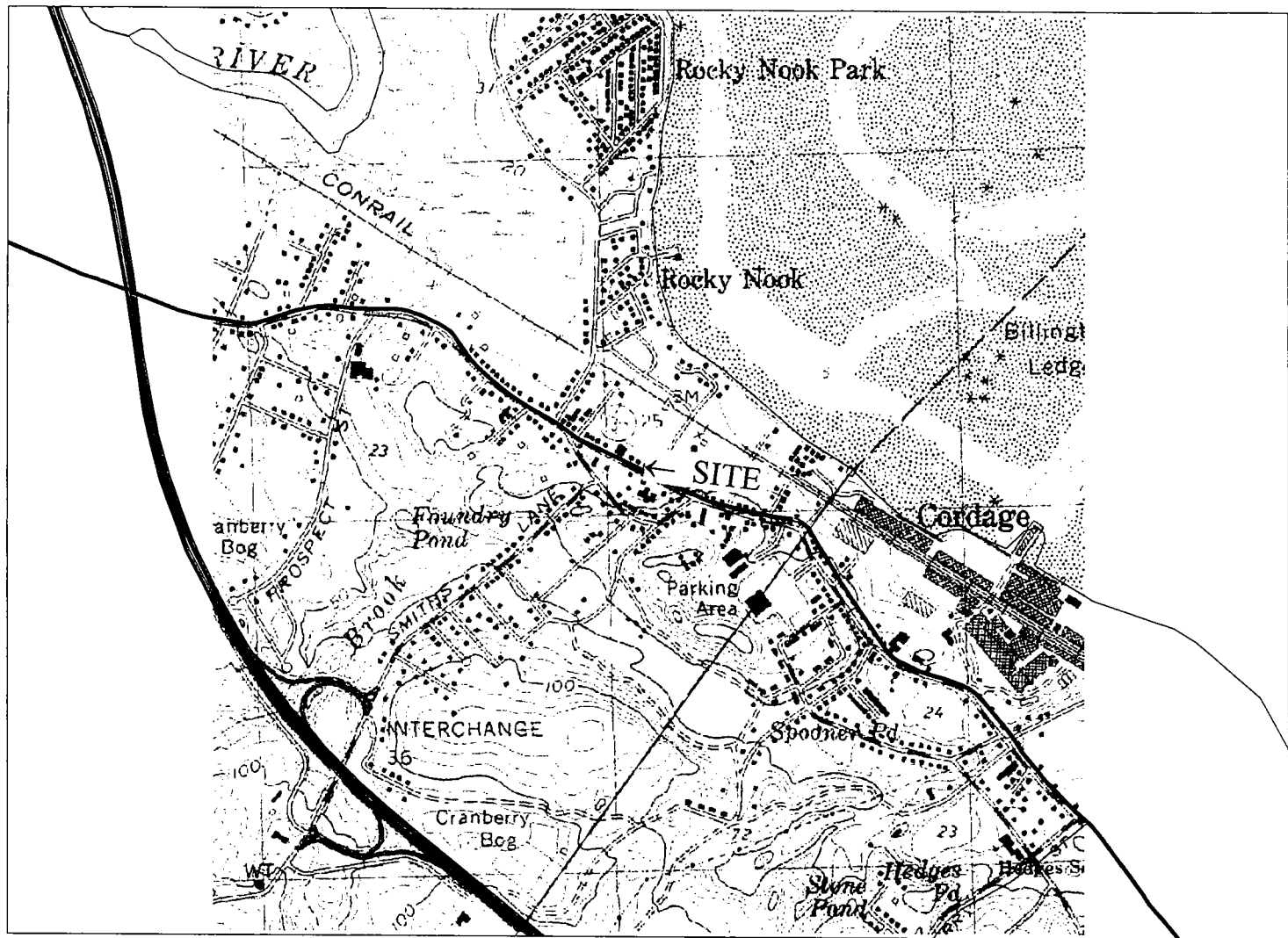
DEP Permitted Solid Waste Facilities; Certified Vernal Pools

SCALE 1:15000

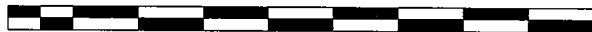
0 1/2 1 KILOMETERS



February 27, 2004



0.1 0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 Miles

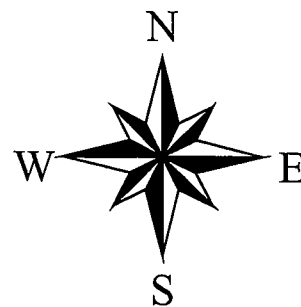


Maj MHD Rds by Class - most detailed

- Limited Access Highway
- Multi-lane Hwy, not limited access
- Other Numbered Hwy
- Major Road - Collector

Maj MHD Rds by Admin - most detailed

- Interstate
- U. S. Federal
- State
- Major Road - Connector
- Maj Streams
- Maj Ponds
- MA Town Boundaries



C. K. Smith Kingston

ATTACHMENTS

**NOTICE OF INTENT FORM
FOR THE
REMEDATION GENERAL PERMIT**

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: Former Texaco Service Station		Facility/site address:	
Location of facility/site: longitude: 70°42'3.7" latitude: 41° 59' 2.9"	Facility SIC code (s): 4471	Street: 37 – 41 Main Street	
b) Name of facility/site owner: James A. Smith Irrevocable Trust		Town: Kingston	
Email address of owner: jsmith@cksmithfuel.com		State: MA	Zip: 02364
Telephone no. of facility/site owner: 508-753-1475		County: Plymouth	
Fax no. of facility/site owner: 508-799-7974		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: 99 Crescent Street			
Town: Worcester	State: MA	Zip: 01605	County: Worcester
c.) Legal name of operator: Corporate Environmental Advisors, Inc.		Operator telephone no.: 508-835-8822	
		Operator fax no.: 508-835-8812	Operator email: alast@cea-inc.com
Operator contact name and title: Adam Last, Principal Engineer			
Address of operator (if different from 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: MA DEP 2. permit or license # assigned: Release Tracking Number 4-0573 3. state agency contact information: name, location, and telephone number: MA DEP Bureau of Waste Site Clean up, 20 Riverside Drive, Lakeville, Massachusetts	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:
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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: 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 <u>0.22 ft³/sec</u> Average flow <u>0.111 ft³/sec</u> 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.<u>70°42'3.7"</u> lat. <u>41°42'2.9"</u>; 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 <u>04/05/06</u> end <u>May 2006</u>	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: <u>See attached figure 3.</u> 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	5,000	249,000	135.7		
2. Total Residual Chlorine	√		1	GRAB	SW-846 9012A	100	< 100	<0.054		
3. Total Petroleum Hydrocarbons	√		1	GRAB	1664	1,000	< 1,000	< 0.54		
4. Cyanide	√		1	GRAB	9012A	10	<10	<0.005		
5. Benzene		√	1	GRAB	5030	0.5	<0.5	< 0.0002		
6. Toluene		√	1	GRAB	5030	0.5	< 0.5	< 0.0002		
7. Ethylbenzene		√	1	GRAB	5030	0.5	<0.5	< 0.0002		
8. (m,p,o) Xylenes		√	1	GRAB	5030	1.0	<1.0	< 0.0005		
9. Total BTEX ⁴		√	1	GRAB	5030	-----	<1.0	<0.0005		

⁴ BTEX = 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 (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	0.010	< 0.01	<9E-5		
11. Methyl-tert-Butyl Ether (MtBE)		√	1	GRAB	5030	0.5	0.8	0.0004		
12. tert-Butyl Alcohol (TBA)	√		1	GRAB	5030	10	<10	<0.005		
13. tert-Amyl Methyl Ether (TAME)	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
14. Naphthalene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
15. Carbon Tetra-chloride	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
16. 1,4 Dichlorobenzene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
17. 1,2 Dichlorobenzene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
18. 1,3 Dichlorobenzene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
19. 1,1 Dichloroethane	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
20. 1,2 Dichloroethane	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
21. 1,1 Dichloroethylene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
22. cis-1,2 Dichloro-ethylene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
23. Dichloromethane (Methylene Chloride)	√		1	GRAB	5030	1.0	< 1	<0.0005		
24. Tetrachloroethylene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		

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 (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	5030	0.5	< 0.5	< 0.0002		
26. 1,1,2 Trichloroethane	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
27. Trichloroethylene	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
28. Vinyl Chloride	√		1	GRAB	5030	0.5	< 0.5	< 0.0002		
29. Acetone	√		1	GRAB	5030	10	< 10	<0.0045		
30. 1,4 Dioxane	√		1	GRAB	5030	20	< 20	<0.01		
31. Total Phenols	√		1	GRAB	625	1	< 1	<0.0005		
32. Pentachlorophenol	√		1	GRAB	625	1	<1	<0.0005		
33. Total Phthalates ⁶ (phthalate esters)	√		1	GRAB	625	5	All phthalates are BDL see lab report	-		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	√		1	GRAB	625	5	<5	<0.00022		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	√		1	GRAB	625	35	< 35	<0.015		
a. Benzo(a) Anthracene	√		1	GRAB	625	5	<5	<0.00022		
b. Benzo(a) Pyrene	√		1	GRAB	625	5	<5	<0.00022		
c. Benzo(b) Fluoranthene	√		1	GRAB	625	5	<5	<0.00022		
d. Benzo(k) Fluoranthene	√		1	GRAB	625	5	<5	<0.00022		
e. Chrysene	√		1	GRAB	625	5	<5	<0.00022		

⁶The sum of individual phthalate compounds.

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 (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	625	5	<5	<0.00022		
g. Indeno(1,2,3-cd) Pyrene	√		1	GRAB	625	5	<5	<0.00022		
36. Total Group II Polycyclic Aromatic Hydrocarbons (pAR)	√		1	GRAB	625	34	< 34	<0.018		
h. Acenaphthene	√		1	GRAB	625	1	<1	<0.0005		
i. Acenaphthylene	√		1	GRAB	625	5	<5	<0.00022		
j. Anthracene	√		1	GRAB	625	5	<5	<0.00022		
k. Benzo(ghi) Perylene	√		1	GRAB	625	5	<5	<0.00022		
l. Fluoranthene	√		1	GRAB	625	1	<1	<0.0005		
m. Fluorene	√		1	GRAB	625	5	<5	<0.00022		
n. Naphthalene-	√		1	GRAB	625	2	<2	<0.0001		
o. Phenanthrene	√		1	GRAB	625	5	<5	<0.00022		
p. Pyrene	√		1	GRAB	625	5	<5	<0.00022		
37. Total Polychlorinated Biphenyls (PCBs)	√		1	GRAB	608	0.25	<0.25	<0.0001		
38. Antimony	√		1	GRAB	200.7	12	<12	<0.0065		
39. Arsenic		√	1	GRAB	200.7	5	6.8	0.0037		
40. Cadmium	√		1	GRAB	200.7	25	< 25	<0.013		
41. Chromium III (I)		√	1	GRAB	calculated	calculated	>= 7 but less than 25	-		
42. Chromium VI	√		1	GRAB	7196A	25	< 25	< 0.013		

NOTES: (1) Chromium III = Total Chromium – Hexavalent Chromium. According to lab personnel, the trivalent chromium is calculated to be greater or equal to 7 ug/l but less than 25 ug/l, Total Chromium was 7 ug/l and the Hexavalent Chromium was less than 25 ug/l.

PARAMETER	Believe Absent	Believe Present	#of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg/day)	concentration (ug/l)	mass (kg/day)
43. Copper	√		1	GRAB	200.7	5	<5	<0.00027		
44. Lead		√	1	GRAB	200.7	3	6.5	0.0035		
45. Mercury	√		1	GRAB	7470A	0.20	<0.20	<0.00009		
46. Nickel		√	1	GRAB	200.7	5	12.9	0.007		
47. Selenium	√		1	GRAB	200.7	5	< 5	<0.0027		
48. Silver	√		1	GRAB	200.7	10	<10	<0.0054		
49. Zinc		√	1	GRAB	200.7	5	48.6	0.026		
50. Iron		√	1	GRAB	200.7	5	3,730	2.03		
Other (describe):	----	----	----	----	----	----	----	----	----	----

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

<i>Step 1:</i> 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? <u>Iron, Lead</u>
<i>Step 2:</i> 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>Iron, Lead</u> DF: <u>N/A</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 ☒ N ☐ If "Yes," list which metals: <u>Iron, 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: 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 <u>25 GPM</u> Maximum flow rate of treatment system <u>100 GPM</u> Design flow rate of treatment system <u>100 GPM</u>						
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. The catchbasin is connected to a series of catchbasins along Main Street. The catchbasins lead to an 18" drain shown on Figure 2. The drain discharges to a drainage swale behind the 43 Main Street property. The drainage swale discharges to adjacent wetlands.						
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 <u>NA</u> .						
e) Provide the reported or calculated seven day-ten year low flow (7QIO) of the receiving water <u>NA</u> cfs Please attach any calculation sheets used to support stream flow and dilution calculations. <u>NA</u> .						
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)? NA						

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.

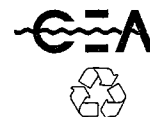
Facility/Site Name: Former Texaco Service Station, 37-41 Main Street, Kingston, MA 02364

Operator signature: Adam J. Last

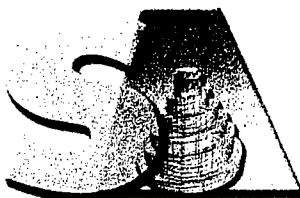
Title: Adam J. Last, Principal Engineer

Date: March 16, 2006

Laboratory Analytical Report
(February 27, 2006 Groundwater Sampling)



Report Date:
06-Mar-06 17:29



- ☒ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.

Featuring

HANIBAL TECHNOLOGY

Laboratory Report

CEA, Inc.
127 Hartwell Street
West Boylston, MA 01583
Attn: Scott Masse

Project: CK Smith-39 Main St-Kingston, MA
Project #: CEA# 3520-97-17

<u>Laboratory ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Date Sampled</u>	<u>Date Received</u>
SA41390-01	MW-2	Ground Water	27-Feb-06 09:00	28-Feb-06 14:01

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. All applicable NELAC requirements have been met.

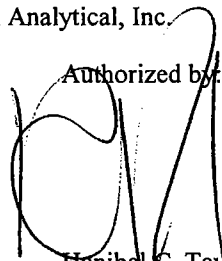
Please note that this report contains 20 pages of analytical data plus Chain of Custody document(s).

This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Massachusetts Certification # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538/2972
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393



Authorized by:


Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method indicated. Please refer to our "Quality" webpage at www.spectrum-analytical.com for a full listing of our current certifications.

ENVIRONMENTAL ANALYSES

Sample Identification

MW-2
SA41390-01

Client Project #
CEA# 3520-97-17

Matrix
Ground Water

Collection Date/Time
27-Feb-06 09:00

Received
28-Feb-06

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst
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Volatile Organic CompoundsVolatile Organic Compounds

Prepared by method SW846 5030 Water MS

67-64-1	Acetone	BRL		µg/l	10.0	1	SW 846 8260B	03-Mar-06	04-Mar-06	6030220	ks
71-43-2	Benzene	BRL		µg/l	0.5	1	"	"	"	"	"
56-23-5	Carbon tetrachloride	BRL		µg/l	0.5	1	"	"	"	"	"
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	0.5	1	"	"	"	"	"
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	0.5	1	"	"	"	"	"
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	0.5	1	"	"	"	"	"
75-34-3	1,1-Dichloroethane	BRL		µg/l	0.5	1	"	"	"	"	"
107-06-2	1,2-Dichloroethane	BRL		µg/l	0.5	1	"	"	"	"	"
75-35-4	1,1-Dichloroethene	BRL		µg/l	0.5	1	"	"	"	"	"
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	0.5	1	"	"	"	"	"
100-41-4	Ethylbenzene	BRL		µg/l	0.5	1	"	"	"	"	"
1634-04-4	Methyl tert-butyl ether	0.8		µg/l	0.5	1	"	"	"	"	"
75-09-2	Methylene chloride	BRL		µg/l	1.0	1	"	"	"	"	"
91-20-3	Naphthalene	BRL		µg/l	0.5	1	"	"	"	"	"
127-18-4	Tetrachloroethene	BRL		µg/l	0.5	1	"	"	"	"	"
108-88-3	Toluene	BRL		µg/l	0.5	1	"	"	"	"	"
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	0.5	1	"	"	"	"	"
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	0.5	1	"	"	"	"	"
79-01-6	Trichloroethene	BRL		µg/l	0.5	1	"	"	"	"	"
75-01-4	Vinyl chloride	BRL		µg/l	0.5	1	"	"	"	"	"
1330-20-7	m,p-Xylene	BRL		µg/l	1.0	1	"	"	"	"	"
95-47-6	o-Xylene	BRL		µg/l	0.5	1	"	"	"	"	"
994-05-8	Tert-amyl methyl ether	BRL		µg/l	0.5	1	"	"	"	"	"
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	10.0	1	"	"	"	"	"
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	"

Surrogate recoveries:

460-00-4	4-Bromofluorobenzene	102		70-130 %			"	"	"	"	"
2037-26-5	Toluene-d8	101		70-130 %			"	"	"	"	"
17060-07-0	1,2-Dichloroethane-d4	93.6		70-130 %			"	"	"	"	"
1868-53-7	Dibromofluoromethane	103		70-130 %			"	"	"	"	"

Microextractable Organic Compounds

106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100	1	EPA 504.1	03-Mar-06	06-Mar-06	6030164	SM
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Extractable Petroleum Hydrocarbons

	Non-polar material (SGT-HEM)	BRL		mg/l	1.0	1	EPA 1664	03-Mar-06	06-Mar-06	6030167	JK
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Semivolatile Organic Compounds by GCPolychlorinated Biphenyls by EPA 608

Prepared by method SW846 3510C

12674-11-2	PCB 1016	BRL		µg/l	0.250	1	EPA 608	03-Mar-06	04-Mar-06	6030157	MP
11104-28-2	PCB 1221	BRL		µg/l	0.250	1	"	"	"	"	"
11141-16-5	PCB 1232	BRL		µg/l	0.250	1	"	"	"	"	"
53469-21-9	PCB 1242	BRL		µg/l	0.250	1	"	"	"	"	"
12672-29-6	PCB 1248	BRL		µg/l	0.250	1	"	"	"	"	"
11097-69-1	PCB 1254	BRL		µg/l	0.250	1	"	"	"	"	"
11096-82-5	PCB 1260	BRL		µg/l	0.250	1	"	"	"	"	"
37324-23-5	PCB 1262	BRL		µg/l	0.250	1	"	"	"	"	"
11100-14-4	PCB 1268	BRL		µg/l	0.250	1	"	"	"	"	"

Surrogate recoveries:

10386-84-2	4,4-DB-Octafluorobiphenyl (Sr)	64.8		30-150 %			"	"	"	"	"
2051-24-3	Decachlorobiphenyl (Sr)	70.0		30-150 %			"	"	"	"	"

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* Reportable Detection Limit

BRL = Below Reporting Limit

Page 2 of 20

Sample Identification

MW-2

SA41390-01

Client Project #

CEA# 3520-97-17

Matrix

Ground Water

Collection Date/Time

27-Feb-06 09:00

Received

28-Feb-06

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst
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Semivolatile Organic Compounds by GCMSSemivolatile Organic Compounds by EPA 625

Prepared by method SW846 3510C

83-32-9	Acenaphthene	BRL		µg/l	1.00	1	EPA 625	03-Mar-06	04-Mar-06	6030160	M.B
208-96-8	Acenaphthylene	BRL		µg/l	5.00	1	"	"	"	"	"
120-12-7	Anthracene	BRL		µg/l	5.00	1	"	"	"	"	"
56-55-3	Benzo (a) anthracene	BRL		µg/l	5.00	1	"	"	"	"	"
50-32-8	Benzo (a) pyrene	BRL		µg/l	5.00	1	"	"	"	"	"
205-99-2	Benzo (b) fluoranthene	BRL		µg/l	5.00	1	"	"	"	"	"
191-24-2	Benzo (g,h,i) perylene	BRL		µg/l	5.00	1	"	"	"	"	"
207-08-9	Benzo (k) fluoranthene	BRL		µg/l	5.00	1	"	"	"	"	"
117-81-7	Bis(2-ethylhexyl)phthalate	BRL		µg/l	5.00	1	"	"	"	"	"
85-68-7	Butyl benzyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	"
59-50-7	4-Chloro-3-methylphenol	BRL		µg/l	1.00	1	"	"	"	"	"
95-57-8	2-Chlorophenol	BRL		µg/l	1.00	1	"	"	"	"	"
218-01-9	Chrysene	BRL		µg/l	5.00	1	"	"	"	"	"
53-70-3	Dibenzo (a,h) anthracene	BRL		µg/l	5.00	1	"	"	"	"	"
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	2.00	1	"	"	"	"	"
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	2.00	1	"	"	"	"	"
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	2.00	1	"	"	"	"	"
120-83-2	2,4-Dichlorophenol	BRL		µg/l	1.00	1	"	"	"	"	"
84-66-2	Diethyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	"
131-11-3	Dimethyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	"
105-67-9	2,4-Dimethylphenol	BRL		µg/l	1.00	1	"	"	"	"	"
84-74-2	Di-n-butyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	"
534-52-1	4,6-Dinitro-2-methylphenol	BRL		µg/l	1.00	1	"	"	"	"	"
51-28-5	2,4-Dinitrophenol	BRL		µg/l	1.00	1	"	"	"	"	"
117-84-0	Di-n-octyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	"
206-44-0	Fluoranthene	BRL		µg/l	1.00	1	"	"	"	"	"
86-73-7	Fluorene	BRL		µg/l	5.00	1	"	"	"	"	"
193-39-5	Indeno (1,2,3-cd) pyrene	BRL		µg/l	5.00	1	"	"	"	"	"
78-59-1	Isophorone	BRL		µg/l	5.00	1	"	"	"	"	"
91-57-6	2-Methylnaphthalene	BRL		µg/l	5.00	1	"	"	"	"	"
95-48-7	2-Methylphenol	BRL		µg/l	1.00	1	"	"	"	"	"
108-39-4, 106-44-5	3,4-Methylphenol	BRL		µg/l	1.00	1	"	"	"	"	"
91-20-3	Naphthalene	BRL		µg/l	2.00	1	"	"	"	"	"
88-75-5	2-Nitrophenol	BRL		µg/l	1.00	1	"	"	"	"	"
100-02-7	4-Nitrophenol	BRL		µg/l	1.00	1	"	"	"	"	"
87-86-5	Pentachlorophenol	BRL		µg/l	1.00	1	"	"	"	"	"
85-01-8	Phenanthrene	BRL		µg/l	5.00	1	"	"	"	"	"
108-95-2	Phenol	BRL		µg/l	1.00	1	"	"	"	"	"
129-00-0	Pyrene	BRL		µg/l	5.00	1	"	"	"	"	"
110-86-1	Pyridine	BRL		µg/l	5.00	1	"	"	"	"	"
95-95-4	2,4,5-Trichlorophenol	BRL		µg/l	1.00	1	"	"	"	"	"
88-06-2	2,4,6-Trichlorophenol	BRL		µg/l	1.00	1	"	"	"	"	"

Surrogate recoveries:

321-60-8	2-Fluorobiphenyl	50.6		30-130 %		"	"	"	"	"
367-12-4	2-Fluorophenol	58.6		15-110 %		"	"	"	"	"
4165-60-0	Nitrobenzene-d5	49.4		30-130 %		"	"	"	"	"
4165-62-2	Phenol-d5	47.5		15-110 %		"	"	"	"	"
1718-51-0	Terphenyl-d14	78.9		30-130 %		"	"	"	"	"
118-79-6	2,4,6-Tribromophenol	45.7		15-110 %		"	"	"	"	"

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* Reportable Detection Limit

BRL = Below Reporting Limit

Page 3 of 20

Sample Identification
MW-2
SA41390-01

Client Project #
CEA# 3520-97-17

Matrix
Ground Water

Collection Date/Time
27-Feb-06 09:00

Received
28-Feb-06

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Analyst
Total Metals by EPA 200 Series Methods											
7440-22-4	Silver	BRL		mg/l	0.0100	1	EPA 200.7	02-Mar-06	06-Mar-06	6030278	LR
7440-38-2	Arsenic	0.0068		mg/l	0.0050	1	"	"	"	"	"
7440-43-9	Cadmium	BRL		mg/l	0.0025	1	"	"	"	"	"
7440-47-3	Chromium	0.0070		mg/l	0.0050	1	"	"	"	"	"
7440-50-8	Copper	BRL		mg/l	0.0050	1	"	"	"	"	"
7439-89-6	Iron	3.73		mg/l	0.0050	1	"	"	"	"	"
7439-97-6	Mercury	BRL		mg/l	0.00020	1	EPA 245.1/7470A	"	06-Mar-06	6030041	YP
7440-02-0	Nickel	0.0129		mg/l	0.0050	1	EPA 200.7	"	06-Mar-06	6030278	LR
7439-92-1	Lead	0.0065		mg/l	0.0030	1	"	"	"	"	"
7440-36-0	Antimony	BRL		mg/l	0.0120	1	"	"	"	"	"
7782-49-2	Selenium	BRL		mg/l	0.0050	1	"	"	"	"	"
7440-66-6	Zinc	0.0486		mg/l	0.0050	1	"	"	"	"	"
General Chemistry Parameters											
1854-029-9	Hexavalent Chromium	BRL	HT-2, R-01	mg/l	0.025	5	SM3500CrD/7196A	06-Mar-06 10:45	06-Mar-06	6030289	LD
57-12-5	Cyanide (total)	BRL		mg/l	0.0100	1	10-204-00-1-A / SW-846 9012A	03-Mar-06	03-Mar-06	6030218	AW
7782-50-5	Total Residual Chlorine	BRL	HT-2, R-01	mg/l	0.100	5	Hach 8167	06-Mar-06 16:30	06-Mar-06	6030316	ES
	Total Suspended Solids	249		mg/l	5.00	1	SM2540D	01-Mar-06	01-Mar-06	6030042	EK

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* Reportable Detection Limit

BRL = Below Reporting Limit

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS									
Blank (6030220-BLK1)									
Prepared & Analyzed: 03-Mar-06									
Acetone	BRL		µg/l	10.0					
Acrylonitrile	BRL		µg/l	1.0					
Benzene	BRL		µg/l	0.5					
Bromobenzene	BRL		µg/l	1.0					
Bromochloromethane	BRL		µg/l	1.0					
Bromodichloromethane	BRL		µg/l	1.0					
Bromoform	BRL		µg/l	1.0					
Bromomethane	BRL		µg/l	2.0					
2-Butanone (MEK)	BRL		µg/l	10.0					
n-Butylbenzene	BRL		µg/l	1.0					
sec-Butylbenzene	BRL		µg/l	1.0					
tert-Butylbenzene	BRL		µg/l	1.0					
Carbon disulfide	BRL		µg/l	5.0					
Carbon tetrachloride	BRL		µg/l	0.5					
Chlorobenzene	BRL		µg/l	1.0					
Chloroethane	BRL		µg/l	2.0					
Chloroform	BRL		µg/l	1.0					
Chloromethane	BRL		µg/l	2.0					
2-Chlorotoluene	BRL		µg/l	1.0					
4-Chlorotoluene	BRL		µg/l	1.0					
1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0					
Dibromochloromethane	BRL		µg/l	1.0					
1,2-Dibromoethane (EDB)	BRL		µg/l	1.0					
Dibromomethane	BRL		µg/l	1.0					
1,2-Dichlorobenzene	BRL		µg/l	0.5					
1,3-Dichlorobenzene	BRL		µg/l	0.5					
1,4-Dichlorobenzene	BRL		µg/l	0.5					
Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0					
1,1-Dichloroethane	BRL		µg/l	0.5					
1,2-Dichloroethane	BRL		µg/l	0.5					
1,1-Dichloroethene	BRL		µg/l	0.5					
cis-1,2-Dichloroethene	BRL		µg/l	0.5					
trans-1,2-Dichloroethene	BRL		µg/l	1.0					
1,2-Dichloropropane	BRL		µg/l	1.0					
1,3-Dichloropropane	BRL		µg/l	1.0					
2,2-Dichloropropane	BRL		µg/l	1.0					
1,1-Dichloropropene	BRL		µg/l	1.0					
cis-1,3-Dichloropropene	BRL		µg/l	1.0					
trans-1,3-Dichloropropene	BRL		µg/l	1.0					
Ethylbenzene	BRL		µg/l	0.5					
Hexachlorobutadiene	BRL		µg/l	1.0					
2-Hexanone (MBK)	BRL		µg/l	10.0					
Isopropylbenzene	BRL		µg/l	1.0					
4-Isopropyltoluene	BRL		µg/l	1.0					
Methyl tert-butyl ether	BRL		µg/l	0.5					
4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0					
Methylene chloride	BRL		µg/l	1.0					
Naphthalene	BRL		µg/l	0.5					
n-Propylbenzene	BRL		µg/l	1.0					
Styrene	BRL		µg/l	1.0					
1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0					
1,1,2,2-Tetrachloroethane	BRL		µg/l	1.0					
Tetrachloroethene	BRL		µg/l	0.5					
Toluene	BRL		µg/l	0.5					
1,2,3-Trichlorobenzene	BRL		µg/l	1.0					

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* Reportable Detection Limit

BRL = Below Reporting Limit

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS										
Blank (6030220-BLK1)										
Prepared & Analyzed: 03-Mar-06										
1,2,4-Trichlorobenzene	BRL		µg/l	1.0						
1,1,1-Trichloroethane	BRL		µg/l	0.5						
1,1,2-Trichloroethane	BRL		µg/l	0.5						
Trichloroethene	BRL		µg/l	0.5						
Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0						
1,2,3-Trichloropropane	BRL		µg/l	1.0						
1,2,4-Trimethylbenzene	BRL		µg/l	1.0						
1,3,5-Trimethylbenzene	BRL		µg/l	1.0						
Vinyl chloride	BRL		µg/l	0.5						
m,p-Xylene	BRL		µg/l	1.0						
o-Xylene	BRL		µg/l	0.5						
Tetrahydrofuran	BRL		µg/l	10.0						
Ethyl ether	BRL		µg/l	1.0						
Tert-amyl methyl ether	BRL		µg/l	0.5						
Ethyl tert-butyl ether	BRL		µg/l	1.0						
Di-isopropyl ether	BRL		µg/l	1.0						
Tert-Butanol / butyl alcohol	BRL		µg/l	10.0						
1,4-Dioxane	BRL		µg/l	20.0						
Surrogate: 4-Bromofluorobenzene	51.8		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	49.5		µg/l		50.0		99.0	70-130		
Surrogate: 1,2-Dichloroethane-d4	45.6		µg/l		50.0		91.2	70-130		
Surrogate: Dibromofluoromethane	51.1		µg/l		50.0		102	70-130		
Blank (6030220-BLK2)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
Acetone	BRL		µg/l	50.0						
Acrylonitrile	BRL		µg/l	5.0						
Benzene	BRL		µg/l	2.5						
Bromobenzene	BRL		µg/l	5.0						
Bromochloromethane	BRL		µg/l	5.0						
Bromodichloromethane	BRL		µg/l	5.0						
Bromoform	BRL		µg/l	5.0						
Bromomethane	BRL		µg/l	10.0						
2-Butanone (MEK)	BRL		µg/l	50.0						
n-Butylbenzene	BRL		µg/l	5.0						
sec-Butylbenzene	BRL		µg/l	5.0						
tert-Butylbenzene	BRL		µg/l	5.0						
Carbon disulfide	BRL		µg/l	25.0						
Carbon tetrachloride	BRL		µg/l	2.5						
Chlorobenzene	BRL		µg/l	5.0						
Chloroethane	BRL		µg/l	10.0						
Chloroform	BRL		µg/l	5.0						
Chloromethane	BRL		µg/l	10.0						
2-Chlorotoluene	BRL		µg/l	5.0						
4-Chlorotoluene	BRL		µg/l	5.0						
1,2-Dibromo-3-chloropropane	BRL		µg/l	10.0						
Dibromochloromethane	BRL		µg/l	5.0						
1,2-Dibromoethane (EDB)	BRL		µg/l	5.0						
Dibromomethane	BRL		µg/l	5.0						
1,2-Dichlorobenzene	BRL		µg/l	2.5						
1,3-Dichlorobenzene	BRL		µg/l	2.5						
1,4-Dichlorobenzene	BRL		µg/l	2.5						
Dichlorodifluoromethane (Freon12)	BRL		µg/l	10.0						
1,1-Dichloroethane	BRL		µg/l	2.5						
1,2-Dichloroethane	BRL		µg/l	2.5						
1,1-Dichloroethene	BRL		µg/l	2.5						

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* Reportable Detection Limit

BRL = Below Reporting Limit

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS										
Blank (6030220-BLK2)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
cis-1,2-Dichloroethene	BRL		µg/l	5.0						
trans-1,2-Dichloroethene	BRL		µg/l	5.0						
1,2-Dichloropropane	BRL		µg/l	5.0						
1,3-Dichloropropane	BRL		µg/l	5.0						
2,2-Dichloropropane	BRL		µg/l	5.0						
1,1-Dichloropropene	BRL		µg/l	5.0						
cis-1,3-Dichloropropene	BRL		µg/l	5.0						
trans-1,3-Dichloropropene	BRL		µg/l	5.0						
Ethylbenzene	BRL		µg/l	2.5						
Hexachlorobutadiene	BRL		µg/l	5.0						
2-Hexanone (MBK)	BRL		µg/l	50.0						
Isopropylbenzene	BRL		µg/l	5.0						
4-Isopropyltoluene	BRL		µg/l	5.0						
Methyl tert-butyl ether	BRL		µg/l	2.5						
4-Methyl-2-pentanone (MIBK)	BRL		µg/l	50.0						
Methylene chloride	8.2	VOC3	µg/l	5.0						
Naphthalene	BRL		µg/l	2.5						
n-Propylbenzene	BRL		µg/l	5.0						
Styrene	BRL		µg/l	5.0						
1,1,1,2-Tetrachloroethane	BRL		µg/l	5.0						
1,1,2,2-Tetrachloroethane	BRL		µg/l	5.0						
Tetrachloroethene	BRL		µg/l	2.5						
Toluene	BRL		µg/l	2.5						
1,2,3-Trichlorobenzene	BRL		µg/l	5.0						
1,2,4-Trichlorobenzene	BRL		µg/l	5.0						
1,1,1-Trichloroethane	BRL		µg/l	2.5						
1,1,2-Trichloroethane	BRL		µg/l	2.5						
Trichloroethene	BRL		µg/l	2.5						
Trichlorofluoromethane (Freon 11)	BRL		µg/l	5.0						
1,2,3-Trichloropropane	BRL		µg/l	5.0						
1,2,4-Trimethylbenzene	BRL		µg/l	5.0						
1,3,5-Trimethylbenzene	BRL		µg/l	5.0						
Vinyl chloride	BRL		µg/l	2.5						
m,p-Xylene	BRL		µg/l	5.0						
o-Xylene	BRL		µg/l	2.5						
Tetrahydrofuran	BRL		µg/l	50.0						
Ethyl ether	BRL		µg/l	5.0						
Tert-amyl methyl ether	BRL		µg/l	2.5						
Ethyl tert-butyl ether	BRL		µg/l	5.0						
Di-isopropyl ether	BRL		µg/l	5.0						
Tert-Butanol / butyl alcohol	BRL		µg/l	50.0						
1,4-Dioxane	BRL		µg/l	100						
Surrogate: 4-Bromofluorobenzene	53.0		µg/l		50.0		106	70-130		
Surrogate: Toluene-d8	51.0		µg/l		50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4	48.4		µg/l		50.0		96.8	70-130		
Surrogate: Dibromofluoromethane	51.3		µg/l		50.0		103	70-130		
LCS (6030220-BS1)										
Prepared & Analyzed: 03-Mar-06										
Acetone	8.0		µg/l		20.0		40.0	2.17-194		
Acrylonitrile	16.0		µg/l		20.0		80.0	70-130		
Benzene	21.3		µg/l		20.0		106	70-130		
Bromobenzene	23.4		µg/l		20.0		117	70-130		
Bromochloromethane	22.5		µg/l		20.0		112	70-130		
Bromodichloromethane	23.7		µg/l		20.0		118	70-130		
Bromoform	21.0		µg/l		20.0		105	70-130		

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* Reportable Detection Limit

BRL = Below Reporting Limit

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS										
<u>LCS (6030220-BS1)</u>										
Prepared & Analyzed: 03-Mar-06										
Bromomethane	17.9		µg/l		20.0		89.5	61.9-145		
2-Butanone (MEK)	14.6		µg/l		20.0		73.0	14.9-165		
n-Butylbenzene	20.4		µg/l		20.0		102	70-130		
sec-Butylbenzene	22.5		µg/l		20.0		112	70-130		
tert-Butylbenzene	22.9		µg/l		20.0		114	70-130		
Carbon disulfide	15.5		µg/l		20.0		77.5	70-130		
Carbon tetrachloride	22.8		µg/l		20.0		114	70-130		
Chlorobenzene	23.3		µg/l		20.0		116	70-130		
Chloroethane	17.9		µg/l		20.0		89.5	64.4-134		
Chloroform	20.9		µg/l		20.0		104	70-130		
Chloromethane	20.5		µg/l		20.0		102	70-130		
2-Chlorotoluene	21.2		µg/l		20.0		106	70-130		
4-Chlorotoluene	22.0		µg/l		20.0		110	70-130		
1,2-Dibromo-3-chloropropane	18.9		µg/l		20.0		94.5	70-130		
Dibromochloromethane	21.8		µg/l		20.0		109	45.3-146		
1,2-Dibromoethane (EDB)	22.9		µg/l		20.0		114	70-130		
Dibromomethane	21.2		µg/l		20.0		106	70-130		
1,2-Dichlorobenzene	20.9		µg/l		20.0		104	70-130		
1,3-Dichlorobenzene	22.8		µg/l		20.0		114	70-130		
1,4-Dichlorobenzene	20.2		µg/l		20.0		101	70-130		
Dichlorodifluoromethane (Freon12)	23.4		µg/l		20.0		117	49.6-201		
1,1-Dichloroethane	20.3		µg/l		20.0		102	70-130		
1,2-Dichloroethane	18.7		µg/l		20.0		93.5	70-130		
1,1-Dichloroethene	18.4		µg/l		20.0		92.0	70-130		
cis-1,2-Dichloroethene	22.4		µg/l		20.0		112	70-130		
trans-1,2-Dichloroethene	18.2		µg/l		20.0		91.0	70-130		
1,2-Dichloropropane	21.1		µg/l		20.0		106	70-130		
1,3-Dichloropropane	20.2		µg/l		20.0		101	70-130		
2,2-Dichloropropane	21.4		µg/l		20.0		107	70-130		
1,1-Dichloropropene	20.6		µg/l		20.0		103	70-130		
cis-1,3-Dichloropropene	20.7		µg/l		20.0		104	70-130		
trans-1,3-Dichloropropene	24.0		µg/l		20.0		120	70-130		
Ethylbenzene	22.6		µg/l		20.0		113	70-130		
Hexachlorobutadiene	20.9		µg/l		20.0		104	68.6-137		
2-Hexanone (MBK)	16.8		µg/l		20.0		84.0	70-130		
Isopropylbenzene	21.8		µg/l		20.0		109	70-130		
4-Isopropyltoluene	22.0		µg/l		20.0		110	70-130		
Methyl tert-butyl ether	20.3		µg/l		20.0		102	70-130		
4-Methyl-2-pentanone (MIBK)	17.5		µg/l		20.0		87.5	48.6-137		
Methylene chloride	18.3		µg/l		20.0		91.5	70-130		
Naphthalene	20.8		µg/l		20.0		104	70-130		
n-Propylbenzene	21.6		µg/l		20.0		108	70-130		
Styrene	23.2		µg/l		20.0		116	70-130		
1,1,1,2-Tetrachloroethane	23.4		µg/l		20.0		117	70-130		
1,1,2,2-Tetrachloroethane	21.4		µg/l		20.0		107	70-130		
Tetrachloroethene	22.4		µg/l		20.0		112	70-130		
Toluene	20.9		µg/l		20.0		104	70-130		
1,2,3-Trichlorobenzene	20.8		µg/l		20.0		104	70-130		
1,2,4-Trichlorobenzene	20.1		µg/l		20.0		100	70-130		
1,1,1-Trichloroethane	23.0		µg/l		20.0		115	70-130		
1,1,2-Trichloroethane	21.9		µg/l		20.0		110	70-130		
Trichloroethene	21.6		µg/l		20.0		108	70-130		
Trichlorofluoromethane (Freon 11)	19.5		µg/l		20.0		97.5	67.9-143		
1,2,3-Trichloropropane	22.6		µg/l		20.0		113	70-130		
1,2,4-Trimethylbenzene	23.4		µg/l		20.0		117	70-130		

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* Reportable Detection Limit

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS										
<u>LCS (6030220-BS1)</u>										
Prepared & Analyzed: 03-Mar-06										
1,3,5-Trimethylbenzene	23.1		µg/l		20.0		116	70-130		
Vinyl chloride	18.2		µg/l		20.0		91.0	70-130		
m,p-Xylene	45.8		µg/l		40.0		114	70-130		
o-Xylene	23.6		µg/l		20.0		118	70-130		
Tetrahydrofuran	16.6		µg/l		20.0		83.0	70-130		
Ethyl ether	19.1		µg/l		20.0		95.5	70-136		
Tert-amyl methyl ether	17.6		µg/l		20.0		88.0	70-130		
Ethyl tert-butyl ether	20.8		µg/l		20.0		104	70-130		
Di-isopropyl ether	19.8		µg/l		20.0		99.0	70-130		
Tert-Butanol / butyl alcohol	152		µg/l		200		76.0	70-130		
1,4-Dioxane	176		µg/l		200		88.0	36.5-156		
Surrogate: 4-Bromofluorobenzene	52.2		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	50.5		µg/l		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	44.2		µg/l		50.0		88.4	70-130		
Surrogate: Dibromofluoromethane	50.1		µg/l		50.0		100	70-130		
<u>LCS Dup (6030220-BSD1)</u>										
Prepared & Analyzed: 03-Mar-06										
Acetone	8.1		µg/l		20.0		40.5	2.17-194	1.24	50
Acrylonitrile	16.8		µg/l		20.0		84.0	70-130	4.88	25
Benzene	21.6		µg/l		20.0		108	70-130	1.87	25
Bromobenzene	23.2		µg/l		20.0		116	70-130	0.858	25
Bromochloromethane	22.7		µg/l		20.0		114	70-130	1.77	25
Bromodichloromethane	24.3		µg/l		20.0		122	70-130	3.33	25
Bromoform	21.0		µg/l		20.0		105	70-130	0.00	25
Bromomethane	18.2		µg/l		20.0		91.0	61.9-145	1.66	50
2-Butanone (MEK)	15.8		µg/l		20.0		79.0	14.9-165	7.89	50
n-Butylbenzene	20.4		µg/l		20.0		102	70-130	0.00	25
sec-Butylbenzene	22.5		µg/l		20.0		112	70-130	0.00	25
tert-Butylbenzene	22.9		µg/l		20.0		114	70-130	0.00	25
Carbon disulfide	15.1		µg/l		20.0		75.5	70-130	2.61	25
Carbon tetrachloride	22.7		µg/l		20.0		114	70-130	0.00	25
Chlorobenzene	23.0		µg/l		20.0		115	70-130	0.866	25
Chloroethane	18.9		µg/l		20.0		94.5	64.4-134	5.43	50
Chloroform	21.2		µg/l		20.0		106	70-130	1.90	25
Chloromethane	20.8		µg/l		20.0		104	70-130	1.94	25
2-Chlorotoluene	20.2		µg/l		20.0		101	70-130	4.83	25
4-Chlorotoluene	22.0		µg/l		20.0		110	70-130	0.00	25
1,2-Dibromo-3-chloropropane	19.0		µg/l		20.0		95.0	70-130	0.528	25
Dibromochloromethane	22.2		µg/l		20.0		111	45.3-146	1.82	50
1,2-Dibromoethane (EDB)	23.5		µg/l		20.0		118	70-130	3.45	25
Dibromomethane	22.0		µg/l		20.0		110	70-130	3.70	25
1,2-Dichlorobenzene	20.7		µg/l		20.0		104	70-130	0.00	25
1,3-Dichlorobenzene	22.6		µg/l		20.0		113	70-130	0.881	25
1,4-Dichlorobenzene	20.2		µg/l		20.0		101	70-130	0.00	25
Dichlorodifluoromethane (Freon12)	25.1		µg/l		20.0		126	49.6-201	7.41	50
1,1-Dichloroethane	20.6		µg/l		20.0		103	70-130	0.976	25
1,2-Dichloroethane	19.4		µg/l		20.0		97.0	70-130	3.67	25
1,1-Dichloroethene	18.8		µg/l		20.0		94.0	70-130	2.15	25
cis-1,2-Dichloroethene	22.6		µg/l		20.0		113	70-130	0.889	25
trans-1,2-Dichloroethene	19.0		µg/l		20.0		95.0	70-130	4.30	25
1,2-Dichloropropane	21.5		µg/l		20.0		108	70-130	1.87	25
1,3-Dichloropropane	20.8		µg/l		20.0		104	70-130	2.93	25
2,2-Dichloropropane	21.6		µg/l		20.0		108	70-130	0.930	25
1,1-Dichloropropene	21.0		µg/l		20.0		105	70-130	1.92	25
cis-1,3-Dichloropropene	21.0		µg/l		20.0		105	70-130	0.957	25

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* Reportable Detection Limit

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS										
<u>LCS Dup (6030220-BSD1)</u>										
Prepared & Analyzed: 03-Mar-06										
trans-1,3-Dichloropropene	24.7		µg/l		20.0		124	70-130	3.28	25
Ethylbenzene	22.3		µg/l		20.0		112	70-130	0.889	25
Hexachlorobutadiene	21.0		µg/l		20.0		105	68.6-137	0.957	50
2-Hexanone (MBK)	17.2		µg/l		20.0		86.0	70-130	2.35	25
Isopropylbenzene	21.5		µg/l		20.0		108	70-130	0.922	25
4-Isopropyltoluene	21.9		µg/l		20.0		110	70-130	0.00	25
Methyl tert-butyl ether	20.8		µg/l		20.0		104	70-130	1.94	25
4-Methyl-2-pentanone (MIBK)	17.8		µg/l		20.0		89.0	48.6-137	1.70	50
Methylene chloride	18.7		µg/l		20.0		93.5	70-130	2.16	25
Naphthalene	21.0		µg/l		20.0		105	70-130	0.957	25
n-Propylbenzene	21.9		µg/l		20.0		110	70-130	1.83	25
Styrene	22.8		µg/l		20.0		114	70-130	1.74	25
1,1,1,2-Tetrachloroethane	22.9		µg/l		20.0		114	70-130	2.60	25
1,1,2,2-Tetrachloroethane	21.4		µg/l		20.0		107	70-130	0.00	25
Tetrachloroethene	22.8		µg/l		20.0		114	70-130	1.77	25
Toluene	21.0		µg/l		20.0		105	70-130	0.957	25
1,2,3-Trichlorobenzene	20.5		µg/l		20.0		102	70-130	1.94	25
1,2,4-Trichlorobenzene	20.3		µg/l		20.0		102	70-130	1.98	25
1,1,1-Trichloroethane	23.3		µg/l		20.0		116	70-130	0.866	25
1,1,2-Trichloroethane	22.6		µg/l		20.0		113	70-130	2.69	25
Trichloroethene	22.4		µg/l		20.0		112	70-130	3.64	25
Trichlorofluoromethane (Freon 11)	20.2		µg/l		20.0		101	67.9-143	3.53	50
1,2,3-Trichloropropane	22.7		µg/l		20.0		114	70-130	0.881	25
1,2,4-Trimethylbenzene	23.5		µg/l		20.0		118	70-130	0.851	25
1,3,5-Trimethylbenzene	23.0		µg/l		20.0		115	70-130	0.866	25
Vinyl chloride	18.6		µg/l		20.0		93.0	70-130	2.17	25
m,p-Xylene	45.4		µg/l		40.0		114	70-130	0.00	25
o-Xylene	23.2		µg/l		20.0		116	70-130	1.71	25
Tetrahydrofuran	17.5		µg/l		20.0		87.5	70-130	5.28	25
Ethyl ether	19.6		µg/l		20.0		98.0	70-136	2.58	50
Tert-amyl methyl ether	17.8		µg/l		20.0		89.0	70-130	1.13	25
Ethyl tert-butyl ether	20.9		µg/l		20.0		104	70-130	0.00	25
Diisopropyl ether	19.7		µg/l		20.0		98.5	70-130	0.506	25
Tert-Butanol / butyl alcohol	157		µg/l		200		78.5	70-130	3.24	25
1,4-Dioxane	190		µg/l		200		95.0	36.5-156	7.65	25
Surrogate: 4-Bromofluorobenzene	52.2		µg/l		50.0		104	70-130		
Surrogate: Toluene-d8	51.0		µg/l		50.0		102	70-130		
Surrogate: 1,2-Dichloroethane-d4	45.2		µg/l		50.0		90.4	70-130		
Surrogate: Dibromofluoromethane	51.3		µg/l		50.0		103	70-130		
<u>Matrix Spike (6030220-MS1)</u> Source: SA41359-02										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
Benzene	22.0		µg/l		20.0	BRL	110	70-130		
Chlorobenzene	25.4		µg/l		20.0	BRL	127	70-130		
1,1-Dichloroethene	18.4		µg/l		20.0	BRL	92.0	70-130		
Toluene	22.2		µg/l		20.0	BRL	111	70-130		
Trichloroethene	22.7		µg/l		20.0	BRL	114	70-130		
Surrogate: 4-Bromofluorobenzene	51.6		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	50.6		µg/l		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	44.8		µg/l		50.0		89.6	70-130		
Surrogate: Dibromofluoromethane	50.6		µg/l		50.0		101	70-130		
<u>Matrix Spike Dup (6030220-MSD1)</u> Source: SA41359-02										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
Benzene	22.5		µg/l		20.0	BRL	112	70-130	1.80	30
Chlorobenzene	25.7		µg/l		20.0	BRL	128	70-130	0.784	30

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Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030220 - SW846 5030 Water MS										
Matrix Spike Dup (6030220-MSD1) Source: SA41359-02										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
1,1-Dichloroethene	18.6		µg/l		20.0	BRL	93.0	70-130	1.08	30
Toluene	22.6		µg/l		20.0	BRL	113	70-130	1.79	30
Trichloroethene	24.1		µg/l		20.0	BRL	120	70-130	5.13	30
Surrogate: 4-Bromofluorobenzene	51.6		µg/l		50.0		103	70-130		
Surrogate: Toluene-d8	50.4		µg/l		50.0		101	70-130		
Surrogate: 1,2-Dichloroethane-d4	45.6		µg/l		50.0		91.2	70-130		
Surrogate: Dibromofluoromethane	51.5		µg/l		50.0		103	70-130		

Microextractable Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030164 - Microextr. by 504.1										
Blank (6030164-BLK1)										
Prepared: 03-Mar-06 Analyzed: 06-Mar-06										
1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100						
LCS (6030164-BS1)										
Prepared: 03-Mar-06 Analyzed: 06-Mar-06										
1,2-Dibromoethane (EDB)	0.227		µg/l	0.0100	0.200		114	50-150		
Duplicate (6030164-DUP1) Source: SA41390-01										
Prepared: 03-Mar-06 Analyzed: 06-Mar-06										
1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100		BRL				30

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030167 - SW846 3510C										
Blank (6030167-BLK1)										
Prepared: 03-Mar-06 Analyzed: 06-Mar-06										
Non-polar material (SGT-HEM)	BRL		mg/l	1.0						
LCS (6030167-BS1)										
Prepared: 03-Mar-06 Analyzed: 06-Mar-06										
Non-polar material (SGT-HEM)	23.2		mg/l		25.0		92.8	0-200		

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030157 - SW846 3510C										
Blank (6030157-BLK1)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
PCB 1016	BRL		µg/l	0.200						
PCB 1221	BRL		µg/l	0.200						
PCB 1232	BRL		µg/l	0.200						
PCB 1242	BRL		µg/l	0.200						
PCB 1248	BRL		µg/l	0.200						
PCB 1254	BRL		µg/l	0.200						
PCB 1260	BRL		µg/l	0.200						
PCB 1262	BRL		µg/l	0.200						
PCB 1268	BRL		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	0.160		µg/l		0.200		80.0	30-150		
Surrogate: Decachlorobiphenyl (Sr)	0.160		µg/l		0.200		80.0	30-150		
LCS (6030157-BS1)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
PCB 1016	1.89		µg/l	0.200	2.50		75.6	50-114		
PCB 1260	2.04		µg/l	0.200	2.50		81.6	40-127		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	0.160		µg/l		0.200		80.0	30-150		
Surrogate: Decachlorobiphenyl (Sr)	0.170		µg/l		0.200		85.0	30-150		

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* Reportable Detection Limit

BRL = Below Reporting Limit

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Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030160 - SW846 3510C										
Blank (6030160-BLK1)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
Acenaphthene	BRL		µg/l	1.00						
Acenaphthylene	BRL		µg/l	5.00						
Aniline	BRL		µg/l	5.00						
Anthracene	BRL		µg/l	5.00						
Azobenzene/Diphenyldiazine	BRL		µg/l	5.00						
Benzidine	BRL		µg/l	5.00						
Benzo (a) anthracene	BRL		µg/l	5.00						
Benzo (a) pyrene	BRL		µg/l	5.00						
Benzo (b) fluoranthene	BRL		µg/l	5.00						
Benzo (g,h,i) perylene	BRL		µg/l	5.00						
Benzo (k) fluoranthene	BRL		µg/l	5.00						
Benzoic acid	BRL		µg/l	5.00						
Benzyl alcohol	BRL		µg/l	5.00						
Bis(2-chloroethoxy)methane	BRL		µg/l	5.00						
Bis(2-chloroethyl)ether	BRL		µg/l	5.00						
Bis(2-chloroisopropyl)ether	BRL		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	BRL		µg/l	5.00						
4-Bromophenyl phenyl ether	BRL		µg/l	5.00						
Butyl benzyl phthalate	BRL		µg/l	5.00						
Carbazole	BRL		µg/l	5.00						
4-Chloro-3-methylphenol	BRL		µg/l	1.00						
4-Chloroaniline	BRL		µg/l	5.00						
2-Chloronaphthalene	BRL		µg/l	5.00						
2-Chlorophenol	BRL		µg/l	1.00						
4-Chlorophenyl phenyl ether	BRL		µg/l	5.00						
Chrysene	BRL		µg/l	5.00						
Dibenzo (a,h) anthracene	BRL		µg/l	5.00						
Dibenzofuran	BRL		µg/l	5.00						
1,2-Dichlorobenzene	BRL		µg/l	2.00						
1,3-Dichlorobenzene	BRL		µg/l	2.00						
1,4-Dichlorobenzene	BRL		µg/l	2.00						
3,3'-Dichlorobenzidine	BRL		µg/l	5.00						
2,4-Dichlorophenol	BRL		µg/l	1.00						
Diethyl phthalate	BRL		µg/l	5.00						
Dimethyl phthalate	BRL		µg/l	5.00						
2,4-Dimethylphenol	BRL		µg/l	1.00						
Di-n-butyl phthalate	BRL		µg/l	5.00						
4,6-Dinitro-2-methylphenol	BRL		µg/l	1.00						
2,4-Dinitrophenol	BRL		µg/l	1.00						
2,4-Dinitrotoluene	BRL		µg/l	5.00						
2,6-Dinitrotoluene	BRL		µg/l	5.00						
Di-n-octyl phthalate	BRL		µg/l	5.00						
Fluoranthene	BRL		µg/l	1.00						
Fluorene	BRL		µg/l	5.00						
Hexachlorobenzene	BRL		µg/l	5.00						
Hexachlorobutadiene	BRL		µg/l	5.00						
Hexachlorocyclopentadiene	BRL		µg/l	5.00						
Hexachloroethane	BRL		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	BRL		µg/l	5.00						
Isophorone	BRL		µg/l	5.00						
2-Methylnaphthalene	BRL		µg/l	5.00						
2-Methylphenol	BRL		µg/l	1.00						
3,4-Methylphenol	BRL		µg/l	1.00						
Naphthalene	BRL		µg/l	2.00						
2-Nitroaniline	BRL		µg/l	5.00						

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* Reportable Detection Limit

BRL = Below Reporting Limit

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030160 - SW846 3510C										
Blank (6030160-BLK1)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
3-Nitroaniline	BRL		µg/l	5.00						
4-Nitroaniline	BRL		µg/l	5.00						
Nitrobenzene	BRL		µg/l	5.00						
2-Nitrophenol	BRL		µg/l	1.00						
4-Nitrophenol	BRL		µg/l	1.00						
N-Nitrosodimethylamine	BRL		µg/l	5.00						
N-Nitrosodi-n-propylamine	BRL		µg/l	5.00						
N-Nitrosodiphenylamine	BRL		µg/l	5.00						
Pentachlorophenol	BRL		µg/l	1.00						
Phenanthrene	BRL		µg/l	5.00						
Phenol	BRL		µg/l	1.00						
Pyrene	BRL		µg/l	5.00						
Pyridine	BRL		µg/l	5.00						
1,2,4-Trichlorobenzene	BRL		µg/l	5.00						
2,4,5-Trichlorophenol	BRL		µg/l	1.00						
2,4,6-Trichlorophenol	BRL		µg/l	1.00						
Surrogate: 2-Fluorobiphenyl	70.9		µg/l		100		70.9	30-130		
Surrogate: 2-Fluorophenol	78.6		µg/l		100		78.6	15-110		
Surrogate: Nitrobenzene-d5	71.7		µg/l		100		71.7	30-130		
Surrogate: Phenol-d5	67.3		µg/l		100		67.3	15-110		
Surrogate: Terphenyl-d14	111		µg/l		100		111	30-130		
Surrogate: 2,4,6-Tribromophenol	67.8		µg/l		100		67.8	15-110		
LCS (6030160-BS1)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
Acenaphthene	70.5		µg/l	1.00	100		70.5	40-140		
Acenaphthylene	76.1		µg/l	5.00	100		76.1	40-140		
Aniline	74.0		µg/l	5.00	100		74.0	40-140		
Anthracene	80.7		µg/l	5.00	100		80.7	40-140		
Azobenzene/Diphenyldiazine	68.9		µg/l	5.00	100		68.9	40-140		
Benzidine	45.2		µg/l	5.00	100		45.2	40-140		
Benzo (a) anthracene	73.2		µg/l	5.00	100		73.2	40-140		
Benzo (a) pyrene	74.6		µg/l	5.00	100		74.6	40-140		
Benzo (b) fluoranthene	71.3		µg/l	5.00	100		71.3	40-140		
Benzo (g,h,i) perylene	69.9		µg/l	5.00	100		69.9	40-140		
Benzo (k) fluoranthene	76.0		µg/l	5.00	100		76.0	40-140		
Benzoic acid	9.82	QC-2	µg/l	5.00	100		9.82	30-130		
Benzyl alcohol	75.8		µg/l	5.00	100		75.8	40-140		
Bis(2-chloroethoxy)methane	75.2		µg/l	5.00	100		75.2	40-140		
Bis(2-chloroethyl)ether	71.4		µg/l	5.00	100		71.4	40-140		
Bis(2-chloroisopropyl)ether	76.5		µg/l	5.00	100		76.5	40-140		
Bis(2-ethylhexyl)phthalate	73.9		µg/l	5.00	100		73.9	40-140		
4-Bromophenyl phenyl ether	70.2		µg/l	5.00	100		70.2	40-140		
Butyl benzyl phthalate	73.6		µg/l	5.00	100		73.6	40-140		
Carbazole	122		µg/l	5.00	100		122	0-200		
4-Chloro-3-methylphenol	80.4		µg/l	1.00	100		80.4	30-130		
4-Chloroaniline	69.3		µg/l	5.00	100		69.3	40-140		
2-Chloronaphthalene	71.2		µg/l	5.00	100		71.2	40-140		
2-Chlorophenol	70.3		µg/l	1.00	100		70.3	30-130		
4-Chlorophenyl phenyl ether	71.1		µg/l	5.00	100		71.1	40-140		
Chrysene	73.3		µg/l	5.00	100		73.3	40-140		
Dibenzo (a,h) anthracene	72.4		µg/l	5.00	100		72.4	40-140		
Dibenzofuran	72.4		µg/l	5.00	100		72.4	40-140		
1,2-Dichlorobenzene	63.9		µg/l	2.00	100		63.9	40-140		
1,3-Dichlorobenzene	63.6		µg/l	2.00	100		63.6	40-140		
1,4-Dichlorobenzene	65.2		µg/l	2.00	100		65.2	40-140		

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* Reportable Detection Limit

BRL = Below Reporting Limit

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Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030160 - SW846 3510C										
LCS (6030160-BS1)										
Prepared: 03-Mar-06 Analyzed: 04-Mar-06										
3,3'-Dichlorobenzidine	83.6		µg/l	5.00	100		83.6	40-140		
2,4-Dichlorophenol	73.8		µg/l	1.00	100		73.8	30-130		
Diethyl phthalate	75.0		µg/l	5.00	100		75.0	40-140		
Dimethyl phthalate	72.1		µg/l	5.00	100		72.1	40-140		
2,4-Dimethylphenol	70.8		µg/l	1.00	100		70.8	30-130		
Di-n-butyl phthalate	69.1		µg/l	5.00	100		69.1	40-140		
4,6-Dinitro-2-methylphenol	65.1		µg/l	1.00	100		65.1	30-130		
2,4-Dinitrophenol	40.2		µg/l	1.00	100		40.2	30-130		
2,4-Dinitrotoluene	80.6		µg/l	5.00	100		80.6	40-140		
2,6-Dinitrotoluene	79.9		µg/l	5.00	100		79.9	40-140		
Di-n-octyl phthalate	76.0		µg/l	5.00	100		76.0	40-140		
Fluoranthene	69.6		µg/l	1.00	100		69.6	40-140		
Fluorene	74.2		µg/l	5.00	100		74.2	40-140		
Hexachlorobenzene	70.4		µg/l	5.00	100		70.4	40-140		
Hexachlorobutadiene	63.3		µg/l	5.00	100		63.3	40-140		
Hexachlorocyclopentadiene	51.1		µg/l	5.00	100		51.1	40-140		
Hexachloroethane	67.7		µg/l	5.00	100		67.7	40-140		
Indeno (1,2,3-cd) pyrene	73.3		µg/l	5.00	100		73.3	40-140		
Isophorone	74.0		µg/l	5.00	100		74.0	40-140		
2-Methylnaphthalene	70.2		µg/l	5.00	100		70.2	40-140		
2-Methylphenol	75.0		µg/l	1.00	100		75.0	40-140		
3,4-Methylphenol	83.8		µg/l	1.00	100		83.8	40-140		
Naphthalene	72.8		µg/l	2.00	100		72.8	40-140		
2-Nitroaniline	77.9		µg/l	5.00	100		77.9	40-140		
3-Nitroaniline	85.3		µg/l	5.00	100		85.3	40-140		
4-Nitroaniline	117		µg/l	5.00	100		117	40-140		
Nitrobenzene	73.6		µg/l	5.00	100		73.6	40-140		
2-Nitrophenol	71.8		µg/l	1.00	100		71.8	30-130		
4-Nitrophenol	55.8		µg/l	1.00	100		55.8	30-130		
N-Nitrosodimethylamine	69.6		µg/l	5.00	100		69.6	40-140		
N-Nitrosodi-n-propylamine	78.4		µg/l	5.00	100		78.4	40-140		
N-Nitrosodiphenylamine	90.3		µg/l	5.00	100		90.3	40-140		
Pentachlorophenol	72.9		µg/l	1.00	100		72.9	30-130		
Phenanthrene	71.1		µg/l	5.00	100		71.1	40-140		
Phenol	77.9		µg/l	1.00	100		77.9	30-130		
Pyrene	77.3		µg/l	5.00	100		77.3	40-140		
Pyridine	69.4		µg/l	5.00	100		69.4	40-140		
1,2,4-Trichlorobenzene	65.6		µg/l	5.00	100		65.6	40-140		
2,4,5-Trichlorophenol	83.7		µg/l	1.00	100		83.7	30-130		
2,4,6-Trichlorophenol	65.6		µg/l	1.00	100		65.6	30-130		
Surrogate: 2-Fluorobiphenyl	65.3		µg/l		100		65.3	30-130		
Surrogate: 2-Fluorophenol	57.7		µg/l		100		57.7	15-110		
Surrogate: Nitrobenzene-d5	65.4		µg/l		100		65.4	30-130		
Surrogate: Phenol-d5	50.1		µg/l		100		50.1	15-110		
Surrogate: Terphenyl-d14	77.3		µg/l		100		77.3	30-130		
Surrogate: 2,4,6-Tribromophenol	68.3		µg/l		100		68.3	15-110		

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* Reportable Detection Limit

BRL = Below Reporting Limit

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	Limit	RPD	Limit
Batch 6030041 - EPA200/SW7000 Series										
Blank (6030041-BLK1)										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Mercury	BRL		mg/l	0.00020						
LCS (6030041-BS1)										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Mercury	0.00216		mg/l	0.00020	0.00250		86.4	80-120		
Duplicate (6030041-DUP1) Source: SA41390-01										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Mercury	BRL		mg/l	0.00020		BRL				20
Matrix Spike (6030041-MS1) Source: SA41363-02										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Mercury	0.00237		mg/l	0.00020	0.00250	BRL	94.8	75-125		
Post Spike (6030041-PS1) Source: SA41363-02										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Mercury	0.00226		mg/l	0.00020	0.00250	BRL	90.4	75-125		
Batch 6030278 - EPA 200 Series										
Blank (6030278-BLK1)										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Selenium	BRL		mg/l	0.0050						
Lead	BRL		mg/l	0.0030						
Zinc	BRL		mg/l	0.0050						
Nickel	BRL		mg/l	0.0050						
Iron	0.102	QB-01	mg/l	0.0050						
Antimony	BRL		mg/l	0.0120						
Copper	BRL		mg/l	0.0050						
Silver	BRL		mg/l	0.0100						
Arsenic	BRL		mg/l	0.0050						
Cadmium	BRL		mg/l	0.0025						
Chromium	BRL		mg/l	0.0050						
LCS (6030278-BS1)										
Prepared: 02-Mar-06 Analyzed: 06-Mar-06										
Antimony	0.494		mg/l	0.0120	0.500		98.8	85-115		
Selenium	0.497		mg/l	0.0050	0.500		99.4	85-115		
Iron	0.515		mg/l	0.0050	0.500		103	85-115		
Nickel	0.500		mg/l	0.0050	0.500		100	85-115		
Lead	0.556		mg/l	0.0030	0.500		111	85-115		
Zinc	0.449		mg/l	0.0050	0.500		89.8	85-115		
Cadmium	0.456		mg/l	0.0025	0.500		91.2	85-115		
Copper	0.505		mg/l	0.0050	0.500		101	85-115		
Chromium	0.484		mg/l	0.0050	0.500		96.8	85-115		
Arsenic	0.478		mg/l	0.0050	0.500		95.6	85-115		
Silver	0.183	Z-2	mg/l	0.0100	0.250		73.2	85-115		

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* Reportable Detection Limit

BRL = Below Reporting Limit

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030042 - General Preparation										
<u>Blank (6030042-BLK1)</u>										
Prepared & Analyzed: 01-Mar-06										
Total Suspended Solids	BRL		mg/l	5.00						
<u>Duplicate (6030042-DUP1)</u> Source: SA41239-01										
Prepared & Analyzed: 01-Mar-06										
Total Suspended Solids	76.0		mg/l	10.0		86.0			12.3	20
<u>Duplicate (6030042-DUP2)</u> Source: SA41390-01										
Prepared & Analyzed: 01-Mar-06										
Total Suspended Solids	253		mg/l	5.00		249			1.59	20
<u>Reference (6030042-SRM1)</u>										
Prepared & Analyzed: 01-Mar-06										
Total Suspended Solids	88.0		mg/l	10.0	81.5		108	85-115.1		
Batch 6030218 - General Preparation										
<u>Blank (6030218-BLK1)</u>										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	BRL		mg/l	0.0100						
<u>Blank (6030218-BLK2)</u>										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	BRL		mg/l	0.0100						
<u>LCS (6030218-BS1)</u>										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	0.281		mg/l	0.0100	0.300		93.7	90-110		
<u>LCS (6030218-BS2)</u>										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	0.282		mg/l	0.0100	0.300		94.0	90-110		
<u>Matrix Spike (6030218-MS1)</u> Source: SA41212-03										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	0.273		mg/l	0.0100	0.300	0.0272	81.9	75-125		
<u>Matrix Spike Dup (6030218-MSD1)</u> Source: SA41212-03										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	0.289		mg/l	0.0100	0.300	0.0272	87.3	75-125	5.69	20
<u>Reference (6030218-SRM1)</u>										
Prepared & Analyzed: 03-Mar-06										
Cyanide (total)	0.342		mg/l	0.0100	0.386		88.6	75.1-125		
Batch 6030289 - General Preparation										
<u>Blank (6030289-BLK1)</u>										
Prepared & Analyzed: 06-Mar-06										
Hexavalent Chromium	BRL		mg/l	0.005						
<u>LCS (6030289-BS1)</u>										
Prepared & Analyzed: 06-Mar-06										
Hexavalent Chromium	0.054		mg/l	0.005	0.0500		108	90-110		
<u>Duplicate (6030289-DUP1)</u> Source: SA41513-02										
Prepared & Analyzed: 06-Mar-06										
Hexavalent Chromium	0.005		mg/l	0.005		BRL				20
<u>Matrix Spike (6030289-MS1)</u> Source: SA41513-02										
Prepared & Analyzed: 06-Mar-06										
Hexavalent Chromium	0.053		mg/l	0.005	0.0500	BRL	106	80-120		

This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit

BRL = Below Reporting Limit

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General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 6030289 - General Preparation										
Reference (6030289-SRM1)										
Prepared & Analyzed: 06-Mar-06										
Hexavalent Chromium	0.026		mg/l	0.005	0.0250		104	85-115		
Batch 6030316 - General Preparation										
Blank (6030316-BLK1)										
Prepared & Analyzed: 06-Mar-06										
Total Residual Chlorine	BRL		mg/l	0.020						
LCS (6030316-BS1)										
Prepared & Analyzed: 06-Mar-06										
Total Residual Chlorine	0.053		mg/l	0.020	0.0500		106	90-110		
Duplicate (6030316-DUP1) Source: SA41390-01										
Prepared & Analyzed: 06-Mar-06										
Total Residual Chlorine	BRL	R-01	mg/l	0.100		BRL				20
Matrix Spike (6030316-MS1) Source: SA41390-01										
Prepared & Analyzed: 06-Mar-06										
Total Residual Chlorine	0.265	R-01	mg/l	0.100	0.250	BRL	106	80-120		
Reference (6030316-SRM1)										
Prepared & Analyzed: 06-Mar-06										
Total Residual Chlorine	0.096		mg/l	0.020	0.111		86.5	85-115		

Notes and Definitions

HT-2	This sample was received outside the EPA recommended holding time for the analysis specified.
QB-01	The method blank contains analyte at a concentration above the MRL; however, concentration is less than 10% of the sample result, which is negligible according to method criteria.
QC-2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
R-01	The Reporting Limit for this analyte has been raised to account for matrix interference.
VOC3	Methylene Chloride concentration reflects normal average laboratory background.
Z-2	LCS recovery low therefore sample may be biased low. Batch accepted based on instrument QC recovery 94.2%
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC.

Interpretation of Total Petroleum Hydrocarbon Report

Petroleum identification is determined by comparing the GC fingerprint obtained from the sample with a library of GC fingerprints obtained from analyses of various petroleum products. Possible match categories are as follows:

- Gasoline - includes regular, unleaded, premium, etc.
- Fuel Oil #2 - includes home heating oil, #2 fuel oil, and diesel
- Fuel Oil #4 - includes #4 fuel oil
- Fuel Oil #6 - includes #6 fuel oil and bunker "C" oil
- Motor Oil - includes virgin and waste automobile oil
- Ligroin - includes mineral spirits, petroleum naphtha, vm&p naphtha
- Aviation Fuel - includes kerosene, Jet A and JP-4
- Other Oil - includes lubricating and cutting oil, and silicon oil

At times, the unidentified petroleum product is quantified using a calibration that most closely approximates the distribution of compounds in the sample. When this occurs, the result is qualified as *TPH (Calculated as).

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix.

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix.

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure. The method blank is used to document contamination resulting from the analytical process.

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with 99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions. For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples. These compounds are spiked into all blanks, standards, and

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

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87A 41390 *[Signature]*

☒ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed: _____

- All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Invoice To: Bill to CK Smith
Please

Project No.: CEA # 3520-97-17
Site Name: CK Smith Kingston,
Location: 39 Main St. State: Mu
Sampler(s): Matt Busch

Project Mgr.: Scott Masse

P.O. No.: _____ RON: _____

1= $\text{Na}_2\text{S}_2\text{O}_3$ 2= HCl 3= H_2SO_4 4= HNO_3 5= NaOH 6=Ascorbic Acid
7= CH_3OH 8= NaHSO_4 9= 10=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1=_____ X2=_____ X3=_____

G=Grab C=Composite

Containers:

Analyses:

QA Reporting Notes:
(check if needed)

State specific reporting standards
If applicable, please list below.

☒ Provide MCP CAM Report
Were all field QC requirements met
as per MADEP CAM Section 2.0?
☒ Yes ☐ No
(Response required for CAM report)

- Site is 21-J

*8260
8260 625 } per NPDES
608 PCB } per
TPH 1664 } attachment
mutah } list
TSS
TRC, Cr+6
Cyanide
EDB 504.1

☐ Fax results when available to (____) _____
☒ E-mail to dazukauskas@cea-inc.com
 EDD Format _____

Condition upon receipt: ☐ Iced ☐ Ambient ☐ °C

Relinquished by:

Received by:

Date:

Time:

[Handwritten signature]

Bergeron
Marie Meunier

2/28/06	11' 30"
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2/28/06	1401
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Ref.