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Tel 401 728-6860
Fax 401 727-1849
www.resourcecontrols.com

Letter of Transmittal

To:	RGP-NOC Processing / Mun. Assistance Unit	**Date:**	November 10, 2005
Address:	1 Congress Street, Suite 1100	**Job Title:**	
City:	Boston, MA 02114-2023	**Job No.:**	A6525A
Attn.:	George Papadapoulos	**Re:**	RTN 4-0414

We are sending you attached via Certified Mail the following items:

- ☒ Reports
- ☐ Copy of Letter
- ☐ Photographs
- ☐ Change Order
- ☐ Plans
- ☐ Proposal
- ☐ Digital Media
- ☐ Other

Copies	Date	ID No.	Description
1	11/9/05		Remediation General Permit / Notice of Intent

These are transmitted as checked below:

- ☒ For your approval
- ☒ For your use
- ☐ For instruction
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ For review and comment
- ☐ Returned for corrections
- ☐ Resubmit __ copies for approval
- ☐ Resubmit __ corrected prints

Remarks:

Copy to:

MADEP – Division of Watershed Management
MADEP – SERO
Benjamin Puritz – Town Administrator, Sharon, MA
Jeffrey Worthe – Sharon Retail Partners, LLC

Barrett L. Smith,
Project Hydrogeologist

DC MAG910109 11/14/05

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REMEDIATION GENERAL PERMIT
NOTICE OF INTENT

Shaw's Plaza Site
700-800 South Main Street
Sharon, Massachusetts

RTN 4-0414

Prepared for:

Attn: George Papadapoulos
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Prepared by:

Resource Control Associates, Inc.
474 Broadway
Pawtucket, Rhode Island 02860
401-728-6860

Assessment • Remediation • Engineering

November 9, 2005

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The proven solution to your environmental needs.

November 9, 2005

George Papadapoulos
RGP-NOC Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

Subject: Shaw's Plaza Site
700-800 South Main Street
Sharon, Massachusetts
RTN 4-0414

Dear Mr. Papadapoulos:

On behalf of Sharon Retail Partners, LLC, Resource Control Associates, Inc. (Resource Controls) is seeking coverage under the US Environmental Protection Agency's newly promulgated National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for wastewater discharge from the Shaw's Plaza Site located at 700-800 South Main Street in Sharon Massachusetts (the "Site"). Pursuant to Part I.B.2 of the RGP, facilities with on-going discharges associated with state-approved remediation projects are eligible for coverage under the RGP. The purpose of this letter is to serve as a permit application and cover letter for the Notice of Intent (NOI) included as Attachment A. Discharge of remedial wastewater at the Site was formerly conducted under NPDES permit exclusion letter #MA 03I-142 (Update) issued on December 4, 2003.

In accordance with the instructions set forth in Appendix V of the RGP, general facility/site information is included in Section 1 of the NOI. A Locus Map illustrating the location of the Site relative to regional features is included as Figure 1. Discharge information is included in Section 2, and a Process Flow Diagram and Site Plan illustrating the single outfall location are included as Figures 2 and 3, respectively.

Contaminant information is included in Section 3 of the NOI, and recent laboratory analytical results for all parameters listed in Appendix III of the RGP are included in Attachment B. A groundwater sample was collected from recovery well RW-2 on October 20, 2005 as a surrogate for the system influent. Influent sampling was not possible at present because of failure of the system controller. National Environmental Systems, Inc. of Seekonk, Massachusetts, is building a replacement controller.

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Based on the recent analytical results and the extensive environmental investigations and remedial activities conducted at the Site since 1986, the potential discharge was determined to fall within the "VOC Only" category under the RGP. As summarized in Section 3, the pH measured in a sample collected from recovery well RW-2 was 6.1 standard pH units (s.u.). This level is below the range acceptable for Class B surface waters in Massachusetts. As such, Resource Controls has requested approval from the Massachusetts Department of Environmental Protection to expand the pH range to 6 to 9 s.u. Upon approval from the MADEP, a Notice of Change will be submitted to the US Environmental Protection Agency. A copy of the letter documenting this request is included in Attachment C.

Treatment system information is included in Section 4, and can be summarized as follows: groundwater from two (2) overburden recovery wells is pumped through an air stripper where dissolved-phase volatile organic compounds are volatilized and released to the atmosphere. The treated effluent is discharged through a 4-inch drain line to a catch basin located southeast of the Shaw's Plaza building; the effluent then flows southwest to Billings Brook, a tributary of the Rumford River, located at the western edge of the Site. Receiving water information is included in Section 5 of the NOI.

Historically, the average flow rate from the system has ranged from 30 to 40 gallons per minute. Treatment system samples have been collected on a monthly basis from the influent and effluent of the system pursuant to an updated NPDES Permit Exclusion letter. Monthly discharge monitoring reports were submitted to the USEPA, the MADEP and the Town of Sharon.

The US Environmental Protection Agency (USEPA) is seeking to ensure that wastewater discharges under the RGP do not adversely affect endangered and threatened species, critical habitat, and/or essential fish habitat. As required under Part I.B.5 of the RGP, all applicants must comply with Appendix VII, Section I, regarding consultation with federal services on endangered species issues. As such, Resource Controls requested any available information regarding the presence of endangered or threatened species, critical habitat, and/or essential fish habitat in the proximity of the Site and a determination as to whether the Site discharge and related activities are likely to adversely affect these species and/or habitats through an informal consultation with the US Fish and Wildlife Service and the National Marine Fisheries Service under Section 7 of the Endangered Species Act. Copies of the letters documenting these requests are included in Attachment C. In addition, Resource Controls reviewed the Massachusetts Geographic Information System (MassGIS) Natural Heritage and Endangered Species (NHESP) data layer. The nearest estimated habitat of Rare Wildlife in Wetlands is located near Wolomolopoag Pond, approximately 0.5 mile northwest and upgradient of the discharge. The MCP Site Scoring Map illustrating the NHESP data layer is included as Attachment D.

In accordance with Appendix VII of the RGP, Resource Controls reviewed the National Register of Historic Places website and the Massachusetts Cultural Resource Information System (MARCIS) database to determine whether historic properties are located near the discharge. The only historic property identified within 1,000 feet of the discharge is the Billings Burial Ground located on South Main Street north of Shaw's Plaza. Based on a visual inspection of the discharge, and the fact that the discharge is ongoing and is not associated with construction activities, it is unlikely that future discharge will have an adverse effect on historic properties.

If you have any questions or require additional information, please contact the undersigned at (401) 728-6860.

Very truly yours,

RESOURCE CONTROL ASSOCIATES, INC.

Barrett L. Smith
Project Hydrogeologist

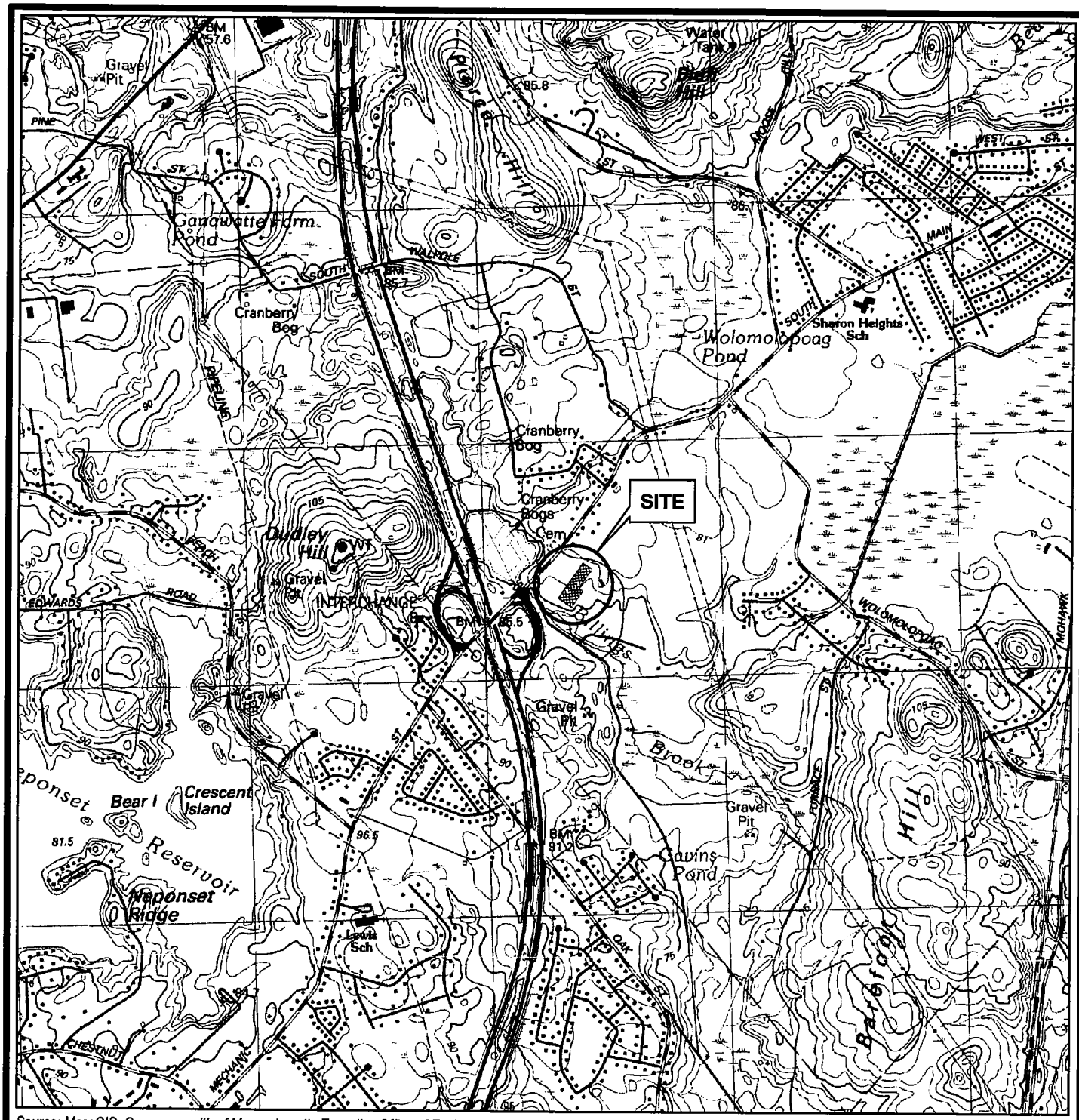
Robert H. Bird
Vice President
Principal Hydrogeologist

Enclosures

cc: Jeffrey Worthe – Sharon Retail Partners, LLC
Benjamin Puritz – Town Administrator, Sharon, MA
MADEP – Division of Watershed Management
MADEP – SERO

BLS:lap

FIGURES



Source: MassGIS, Commonwealth of Massachusetts Executive Office of Environmental Affairs

0 625 1,250 2,500 Feet

SCALE: 1:24,000

N W E S

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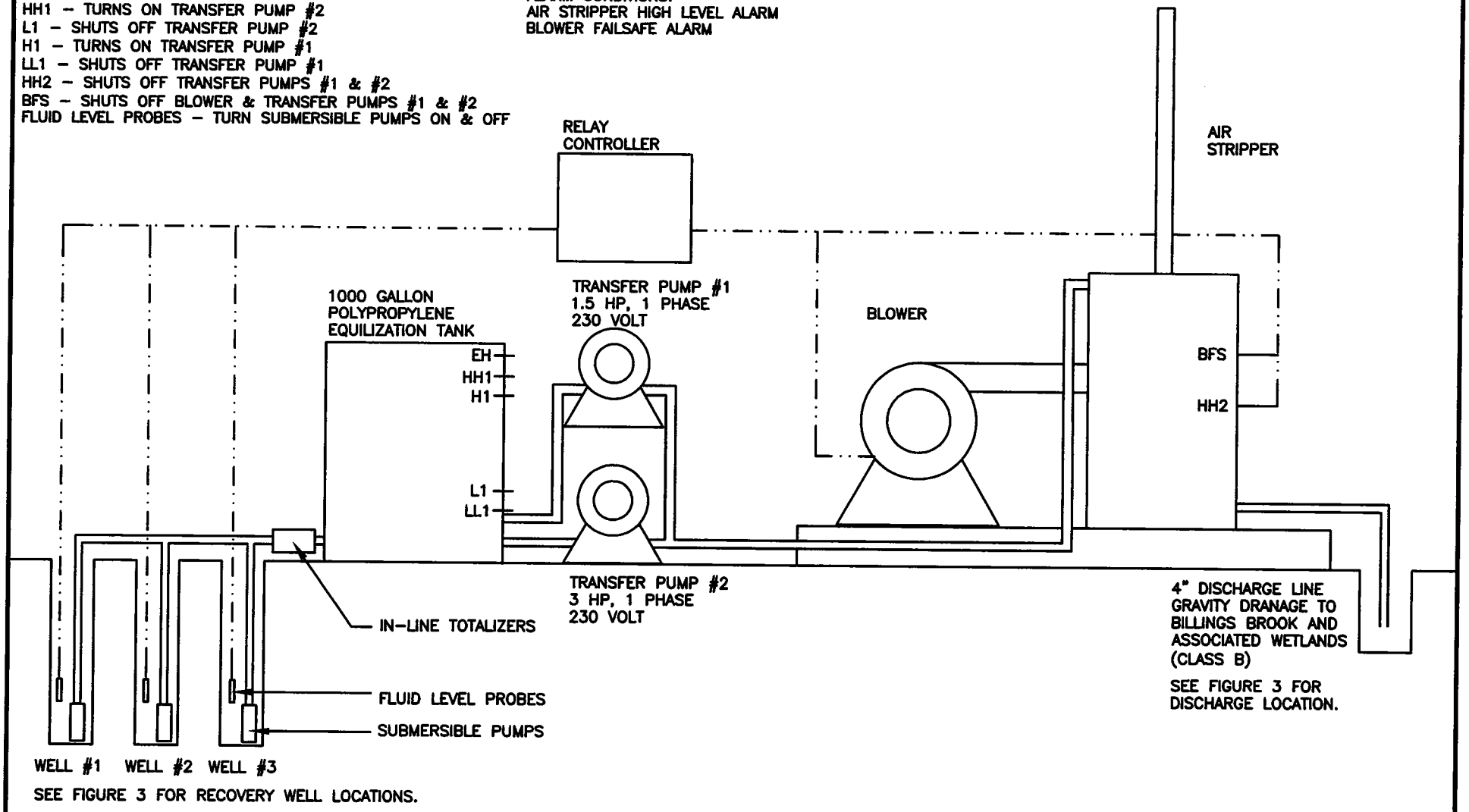
LOCUS MAP

SHAW'S PLAZA SITE
700-800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

PROJECT NO.	FILE NAME	DATE	FIGURE
A6525	A6525LOCUS.PDF	10/22/03	1

EH – SHUTS OFF RECOVERY WELL PUMPS.
HH1 – TURNS ON TRANSFER PUMP #2
L1 – SHUTS OFF TRANSFER PUMP #2
H1 – TURNS ON TRANSFER PUMP #1
LL1 – SHUTS OFF TRANSFER PUMP #1
HH2 – SHUTS OFF TRANSFER PUMPS #1 & #2
BFS – SHUTS OFF BLOWER & TRANSFER PUMPS #1 & #2
FLUID LEVEL PROBES – TURN SUBMERSIBLE PUMPS ON & OFF

ALARM CONDITIONS:
AIR STRIPPER HIGH LEVEL ALARM
BLOWER FAILSAFE ALARM



SEE FIGURE 3 FOR RECOVERY WELL LOCATIONS.

NOTE: DRAWING WAS MODIFIED FROM A DRAWING ENTITLED "SYSTEM SHAWS" BY REMEDIAL SYSTEMS INC.

LEGEND

——— SYSTEM COMPONENTS
——— RELAY CONTROL LOGIC

PROCESS FLOW FROM LEFT TO RIGHT ACROSS PAGE

Not to Scale

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PROCESS FLOW DIAGRAM

SHAW'S PLAZA SITE
SHARON, MASSACHUSETTS

DRAWN BY	PROJECT	PRINT DATE	FIGURE
BLS	A6525A	10/24/2005	2

P:\6000\6525A.00 Shaws Plaza, Sharon\Graphics-WIP\CAD (dwg.)\A6525A System P&ID Update.dwg

LEGEND

- Monitoring Well
- Shoreline
- Hydrologic Connection
- Mean Low Water Line
- Wetland Limit
- Closure Line
- Marsh/Bog
- Wooded Marsh
- Cranberry Bog
- Salt Marsh
- Open Water
- Reservoir (with PWSID)
- Tidal Flats
- Beach/Dune

0 75 150 300 Feet

RESOURCE CONTROLS
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DRAWING DESCRIPTION:

SITE PLAN

CLIENT:
SHARON RETAIL PARTNERS, LLC

LOCATION:
SHAW'S PLAZA SITE
700 – 800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

DESIGNED BY:	CHECKED BY:	APPROVED BY:
RHB	BLS	RHB

DRAWING DATE:	SHEET NUMBER:
10/26/05	1 OF 1

PROJECT NUMBER:	DRAWING NAME:
A6525A	A6525AFIG3.PDF

FIGURE 3

ATTACHMENT A

Notice of Intent

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**: Shaw's Plaza		**Facility/site** address:	
Location of **facility/site**: longitude: 71 13 10 latitude: 42 05 35	Facility SIC code(s): 5411, 5912, 6021, 8351	Street: 700-800 South Main Street	
b) Name of **facility/site owner:** Sharon Retail Partners, LLC		Town: Sharon	
Email address of owner: jeff@mdpa.com		State: MA	Zip: 02067 / County: Norfolk
Telephone no.of facility/site **owner**: 310-393-9653			
Fax no. of facility/site **owner**: 310-458-2644		**Owner** is (check one): 1. Federal____ 2. State/Tribal____ 3. Private ✓ 4. other, if so, describe:	
Address of **owner** (if different from site): c/o Worthe Real Estate Group			
Street: 223 Wilshire Boulevard			
Town: Santa Monica	State: CA	Zip: 90401	County: Los Angeles
c) Legal name of **operator**: Resource Control Associates, Inc.	**Operator** telephone no: 401-728-6860		
	Operator fax no.: 401-727-1849		**Operator** email: rbird@resourcecontrols.com
Operator contact name and title: Robert H. Bird, LSP, Vice President and Principal Hydrogeologist			
Address of **operator** (if different from owner):	Street: 474 Broadway		
Town: Pawtucket	State: RI	Zip: 02860	County: Providence

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: RTN 4-0414 2. permit or license # assigned: 3. state agency contact information: name, location, and telephone number:	f) Is the site/facility covered by any other EPA permit, including: 1. multi-sector storm water general permit? Y___ N ✓, if Y, number: 2. phase I or II construction storm water general permit? Y___ N ✓, if Y, number: 3. individual NPDES permit? Y___ N ✓, if Y, number: 4. any other water quality related permit? Y___ N ✓, 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: Post-RAO operation and maintenance of a groundwater extraction and treatment system.		
b) Provide the following information about each discharge:	1) Number of discharge points: One (1)	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.14 Average flow 0.08 Is maximum flow a **design value**? Y ✓ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Based on historical monitoring data, the average flow rate is 35 gallons per minute (0.08 ft3/s).
3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 71°13'11" lat. 42°05'35"; 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):	5) Is the discharge intermittent No or seasonal No ? Is discharge ongoing Yes ✓ No___?	
c) Expected dates of discharge (mm/dd/yy): start 05/28/92 end Undermined		
d) Please attach a line drawing or flow schematic showing water flow through the facility including: See Figures 2 and 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	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
1. Total Suspended Solids	X		1	Grab	SM 2540	10 mg/L	NA	NA	<10,000	<2
2. Total Residual Chlorine	X		1	Grab	SM 4500	0.2 mg/L	NA	NA	<200	<0.04
3. Total Petroleum Hydrocarbons	X		1	Grab	1664	5 mg/L	NA	NA	<5,000	<1
4. Cyanide	X		1	Grab	335.3	0.01 mg/L	NA	NA	<10	<2E-3
5. Benzene	X		1	Grab	8260B	0.5 ug/L	NA	NA	<0.5	<1E-4
6. Toluene	X		1	Grab	8260B	0.5 ug/L	NA	NA	<0.5	<1E-4
7. Ethylbenzene	X		1	Grab	8260B	0.5 ug/L	NA	NA	<0.5	<1E-4
8. (m,p,o) Xylenes	X		1	Grab	8260B	1 ug/L	NA	NA	<1	<2E-4
9. Total BTEX[4]	X		1	Grab	8260B	2.5 ug/L	NA	NA	<2.5	<5E-4

[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	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	X		1	Grab	8260B	0.5 ug/L	NA	NA	<0.5	<1E-4
11. Methyl-tert-Butyl Ether (MtBE)		X	1	Grab	8260B	0.5 ug/L	NA	NA	6	0.001
12. tert-Butyl Alcohol (TBA)	X		1	Grab	8260B	20 ug/L	NA	NA	<20	<.004
13. tert-Amyl Methyl Ether (TAME)	X		1	Grab	8260B	0.5 ug/L	NA	NA	<0.5	<1E-4
14. Naphthalene	X		1	Grab	8260B	0.5 ug/L	NA	NA	<0.5	<1E-4
15. Carbon Tetra-chloride	X		24	Grab	8260B *	0.5 ug/L	NA	NA	<0.5	<1E-4
16. 1,4 Dichlorobenzene	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
17. 1,2 Dichlorobenzene	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
18. 1,3 Dichlorobenzene	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
19. 1,1 Dichloroethane	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
20. 1,2 Dichloroethane	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
21. 1,1 Dichloroethylene	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
22. cis-1,2 Dichloro-ethylene	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	<1E-4
23. Dichloromethane (Methylene Chloride)	X		1	Grab	8260B	2.5 ug/L	NA	NA	<0.5	<1E-4
24. Tetrachloroethylene		X	24	Grab	8260B*	0.5 ug/L	NA	NA	40	0.008

*Influent samples under NPDES Permit Exclusion Letter were analyzed by EPA 8021B.

[5] EDB is a groundwater contaminant at fuel spill and pesticide application sites in New England.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X		24	Grab	8260B*	0.5 ug/L	NA	NA	<0.5	
26. 1,1,2 Trichloroethane	X		24	Grab	8260B	0.5 ug/L	NA	NA	<0.5	
27. Trichloroethylene		X	24	Grab	8021B	1 ug/L	NA	NA	1	2E-4
28. Vinyl Chloride	X		24	Grab	8260*	0.5 ug/L	NA	NA	<0.5	<1E-4
29. Acetone	X		1	Grab	8260B	10 ug/L	NA	NA	10	<2E-3
30. 1,4 Dioxane	X		1	Grab	8260B	500 ug/L	NA	NA	<500	<0.1
31. Total Phenols	X		1	Grab	8270C	60 ug/L	NA	NA	<60	<0.01
32. Pentachlorophenol	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
33. Total Phthalates [6] (Phthalate esthers)	X		1	Grab	8270C	30 ug/L	NA	NA	<30	<6E-3
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	X		1	Grab	8270C	35 ug/L	NA	NA	<35	<7E-3
a. Benzo(a) Anthracene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
b. Benzo(a) Pyrene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
c. Benzo(b)Fluoranthene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
d. Benzo(k) Fluoranthene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
e. Chrysene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3

*Influent samples under NPDES Permit Exclusion Letter were analyzed by EPA 8021B.

[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	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X		1	Grab	8279C	5 ug/L	NA	NA	<5	<1E-3
g. Indeno(1,2,3-cd) Pyrene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	X		1	Grab	8270C	45 ug/L	NA	NA	<45	<.009
h. Acenaphthene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
i. Acenaphthylene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
j. Anthracene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
k. Benzo(ghi) Perylene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
l. Fluoranthene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
m. Fluorene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
n. Naphthalene-	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
o. Phenanthrene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
p. Pyrene	X		1	Grab	8270C	5 ug/L	NA	NA	<5	<1E-3
37. Total Polychlorinated Biphenyls (PCBs)	X		1	Grab	608	1.4 ug/L	NA	NA	<1.4	<3E-4
38. Antimony	X		1	Grab	200.7	0.06 mg/L	NA	NA	<60	<0.01
39. Arsenic	X		1	Grab	200.7	0.01 mg/L	NA	NA	<10	<2E-3
40. Cadmium	X		1	Grab	200.7	0.005 mg/L	NA	NA	<5	<1E-3
41. Chromium III	X		1	Grab	200.7	0.01 mg/L	NA	NA	<10	<2E-3
42. Chromium VI	X		1	Grab	3500	0.01 mg/L	NA	NA	<10	<2E-3

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	✓		1	Grab	200.7	0.025 mg/L	NA	NA	< 25	<5E-3
44. Lead	✓		1	Grab	200.7	0.005 mg/L	NA	NA	< 5	<1E-3
45. Mercury	✓		1	Grab	200.7	0.0002 mg/L	NA	NA	< 0.2	<4E-5
46. Nickel	✓		1	Grab	200.7	0.04 mg/L	NA	NA	< 40	<8E-3
47. Selenium	✓		1	Grab	200.7	0.05 mg/L	NA	NA	< 50	<0.01
48. Silver	✓		1	Grab	200.7	0.007 mg/L	NA	NA	< 7	<1E-3
49. Zinc	✓		1	Grab	200.7	0.2 mg/L	NA	NA	< 200	<0.04
50. Iron		✓	1	Grab	200.7	0.01 mg/L	NA	NA	5,600	1.01
Other (describe): pH		✓	1	Grab	SM 4500	NA	NA	NA	6.1 s.u.	NA

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
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 DF: 1.5	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

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank	Air stripper	Oil/water separator	Equalization tanks	Bag filter	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 35 Maximum flow rate of treatment system 65 Design flow rate of treatment system 65						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): None.						

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

a) Identify the discharge pathway:	Direct____	Within facility__	Storm drain X	River/brook X	Wetlands X	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Discharge to 4-inch drain line to catch basin and on to Billings Brook and associated wetlands.						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: See Figure 3. 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 Class B,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water NA cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes____ No X If yes, for which pollutant(s)? Is there a TMDL? Yes No X 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 ✓ or is consultation underway? Yes ✓ No____
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (~~check~~ one):
a "no jeopardy" opinion? _____ or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

b) Are any historic properties listed or eligible for listing on the National Register of Historic Places located on the facility or site or in proximity to the discharge?
Yes_____ No ✓ Have any state or tribal historic preservation officer been consulted in this determination (Massachusetts only)? Yes_____ No ✓

7. Supplemental information. :

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

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

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

Facility/Site Name: Shaw's Plaza

Operator signature: Robert H B

Title: Vice President and Principal Hydrogeologist

Date: November 9, 2005

ATTACHMENT B

Laboratory Reports

GROUNDWATER ANALYTICAL

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

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

October 17, 2003

Mr. Chris Gill
Resource Control Associates
474 Broadway
Pawtucket, RI 02860

OCT 20 '03

LABORATORY REPORT

Project: **Condyne/ Sharon/A6525**
Lab ID: **65712**
Received: **10-09-03**

Dear Chris:

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

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

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

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

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

Sincerely,

Jonathan R. Sanford
President

JRS/kal
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project:	Condyne/ Sharon/A6525	Delivery:	GWA Courier	Temperature:	4.0'C
Client:	Resource Control Associates	Airbill:	n/a	Chain of Custody:	Present
Lab ID:	65712	Lab Receipt:	10-09-03	Custody Seal(s):	n/a

Lab ID	Field ID		Matrix	Sampled	Method				Notes
65712-1	Air Stripper Inf		Aqueous	10/8/03 14:20	EPA 8021B Volatile Halocarbons				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C282398	40 mL VOA Vial	Industrial	BX7824	None	n/a	n/a	05-01-03		
C282386	40 mL VOA Vial	Industrial	BX7824	None	n/a	n/a	05-01-03		
C282374	40 mL VOA Vial	Industrial	BX7824	None	n/a	n/a	05-01-03		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
65712-2	Air Stripper Eff		Aqueous	10/8/03 14:10	EPA 8260B Volatile Organics with Oxygenates				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C283726	40 mL VOA Vial	Fisher	BX7631	HCl	R-3449B	04-25-03	05-01-03		
C283714	40 mL VOA Vial	Fisher	BX7631	HCl	R-3449B	04-25-03	05-01-03		
C283702	40 mL VOA Vial	Fisher	BX7631	HCl	R-3449B	04-25-03	05-01-03		

GROUNDWATER ANALYTICAL

Data Certification

Project:	Condyne/ Sharon/A6525	Lab ID:	65712
Client:	Resource Control Associates	Received:	10-09-03 16:00

MA DEP Compendium of Analytical Methods

Project Location:	n/a	MA DEP RTN:	n/a

This Form provides certifications for the following data set:

EPA 8260B: 65712-02
EPA 8021B: 65712-01

Sample Matrices:	Groundwater	(X)	Soil/Sediment	( )	Drinking Water	( )	Other	( )			
MCP SW-846 Methods Used	8260B	(X)	8151A	( )	8330	( )	6010B	( )	7470A/1A	( )	
	8270C	( )	8081A	( )	VPH	( )	6020	( )	9012A[2]	( )	
As specified in MA DEP Compendium of Analytical Methods (check all that apply)	8082	( )	8021B	(X)	EPH	( )	7000 S[3]	( )	Other	( )	

1. List Release Tracking Number (RTN), if known.
2. SW-846 Method 9012A (Equivalent to 9014) or MA DEP Physiologically Available Cyanide (PAC) Method
3. S - SW-846 Methods 7000 Series. List individual method and analyte.

An affirmative response to questions A, B, C and D is required for "Presumptive Certainty" status.

A.	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	Yes
B.	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes
C.	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty," as described in Section 2.0 of the MA DEP document CAM VII A, *Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data*?	No
D.	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	n/a

A response to questions E and F below is required for "Presumptive Certainty" status.

E.	Were all QC performance standards and recommendations for the specified methods achieved?	Yes
F.	Were results for all analyte-list compounds/elements for the specified method(s) reported?	No

All No answers are addressed in the attached Project Narrative.

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

Signature:		Position:	President
Printed Name:	Jonathan R. Sanford	Date:	10-17-03

GROUNDWATER ANALYTICAL

EPA Method 8021B
Halogenated Volatile Organics by GC/ELCD

Field ID:	Air Stripper Inf	Matrix:	Aqueous
Project:	Condyne/ Sharon/A6525	Container:	40 mL VOA Vial
Client:	Resource Control Associates	Preservation:	Cool
Laboratory ID:	65712-01	QC Batch ID:	VG2-2490-W
Sampled:	10-08-03 14:20	Instrument ID:	GC-2 HP 5890
Received:	10-09-03 16:00	Sample Volume:	5 mL
Analyzed:	10-14-03 15:33	Dilution Factor:	1
Analyst:	JH		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	5
74-87-3	Chloromethane	BRL		ug/L	5
75-01-4	Vinyl Chloride	BRL		ug/L	2
74-83-9	Bromomethane	BRL		ug/L	5
75-00-3	Chloroethane	BRL		ug/L	5
75-69-4	Trichlorofluoromethane	BRL		ug/L	1
75-35-4	1,1-Dichloroethene	BRL		ug/L	1
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	1
75-34-3	1,1-Dichloroethane	BRL		ug/L	1
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	1
67-66-3	Chloroform	BRL		ug/L	1
107-06-2	1,2-Dichloroethane	BRL		ug/L	1
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	1
56-23-5	Carbon Tetrachloride	BRL		ug/L	1
78-87-5	1,2-Dichloropropane	BRL		ug/L	1
79-01-6	Trichloroethene	1		ug/L	1
75-27-4	Bromodichloromethane	BRL		ug/L	1
110-75-8	2-Chloroethyl Vinyl Ether	BRL		ug/L	5
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	1
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	1
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	1
124-48-1	Dibromochloromethane	BRL		ug/L	1
127-18-4	Tetrachloroethene	32		ug/L	1
108-90-7	Chlorobenzene	BRL		ug/L	1
75-25-2	Bromoform	BRL		ug/L	1
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	1
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	1
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	1
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	1

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
1,2-Dichloroethane-d4	10	9.4	94 %	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 8260B
Volatile Organics by GC/MS

Field ID:	Air Stripper Eff	Matrix:	Aqueous
Project:	Condyne/ Sharon/A6525	Container:	40 mL VOA Vial
Client:	Resource Control Associates	Preservation:	HCl/Cool
Laboratory ID:	65712-02	QC Batch ID:	VM5-2660-W
Sampled:	10-08-03 14:10	Instrument ID:	MS-5 HP 6890
Received:	10-09-03 16:00	Sample Volume:	25 mL
Analyzed:	10-13-03 11:44	Dilution Factor:	1
Analyst:	LMG		

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)	BRL		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:	**Air Stripper Eff**	Matrix:	**Aqueous**
Project:	**Condyne/ Sharon/A6525**	Container:	**40 mL VOA Vial**
Client:	**Resource Control Associates**	Preservation:	**HCl/Cool**
Laboratory ID:	**65712-02**	QC Batch ID:	**VM5-2660-W**
Sampled:	**10-08-03 14:10**	Instrument ID:	**MS-5 HP 6890**
Received:	**10-09-03 16:00**	Sample Volume:	**25 mL**
Analyzed:	**10-13-03 11:44**	Dilution Factor:	**1**
Analyst:	**LMG**		

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	BRL		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	BRL		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	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		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	11	**115 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	11	**115 %**	70 - 130 %
Toluene-d_8	10	11	**113 %**	70 - 130 %
4-Bromofluorobenzene	10	11	**106 %**	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

Project Narrative

Project:	Condyne/ Sharon/A6525	Lab ID:	65712
Client:	Resource Control Associates	Received:	10-09-03 16:00

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8021B Non-conformance: Samples 65712-01. Identification of analytes detected is tentative. Confirmation by a secondary column, or GC/MS analysis, was not performed for positive results. Groundwater Analytical recommends utilizing EPA 8260B for definitive identification of any analytes detected.

2. EPA 8021B Note: Samples 65712-01. Sample(s) were analyzed for only selected chlorinated target analytes, as requested by client.

3. EPA 8260B Non-conformance: Sample 65712-02. Laboratory control sample (LCS) analyte 1,1,2-Trichlorotrifluoroethane was above recommended recovery limits for QC batch VM5-2660-W.

4. Sample 65712-01 for analysis by EPA Method 8021B was not received preserved with HCl. The sample was analyzed as received.

GROUNDWATER ANALYTICAL

228 Main Street, P.O. Box 1200
Buzzards Bay, MA 02532
Telephone (508) 759-4441 • FAX (508) 759-4475
www.groundwateranalytical.com

CHAIN-OF-CUSTODY RECORD AND WORK ORDER

№ 077805

Project Name: Condyne / Sharon
Firm: RCA
Project Number: A 6525
Address: 474 Broadway
Sampler Name: Jack Potter
City / State / Zip: Pawtucket, RI 02860
Project Manager: Chris Gill
Telephone: 401-728-6860

INSTRUCTIONS: Use separate line for each container (except replicates).

TURNAROUND

- ☐ STANDARD (10 Business Days)
- ☒ PRIORITY (5 Business Days)
- ☐ RUSH (RAN- ______) (Rush requires Rush Authorization Number)
- ☐ Please Email to: ______
- ☐ Please FAX to: ______

BILLING

- ☐ Purchase Order No.: 3956
- ☐ Third Party Billing: ______
- ☐ GWA Quote: ______

ANALYSIS REQUEST

Volatiles — RCRA/21E: ☐ 8260B TCL+MTBE; ☒ 8260B +MTBE; ☐ 8021B Aromatics; ☒ 8021B Halocarbons; ☐ 8021B. NPDES: ☐ 624; ☐ 602+MTBE; ☐ 601; ☐ 601/602+MTBE. SDWA: ☐ 524.2+MTBE. Options: ☐ TIC Search
Semivolatiles — ☐ 8270C; ☐ 8270C PAHs only; ☐ 625; ☐ 625 PAHs only; ☐ 525.2; ☐ Acid Only; ☐ B/N Only; ☐ TIC Search
Pest/Herb/PCBs — Extractable: ☐ 8081A Pesticides; ☐ 8082 PCBs; ☐ 608 Pesticides; ☐ 608 PCBs; ☐ 505 ☐ 508; ☐ 531.1; ☐ 8151A Herbicides; ☐ 615; ☐ 515.1. Vol.: ☐ 8011 EDB/DBCP; ☐ 504.1 EDB/DBCP
Metals — ☐ 8 RCRA; ☐ 5 RCRA; ☐ MA List Metals; ☐ 23 TAL; ☐ 13 Priority Pollutant; ☐ Lead and Copper; Specify For Water Samples: ☐ Total ☐ Dissolved; ☐ Specify:
Petroleum Hydrocarbon — Ext. TPH: ☐ TPH-IR; ☐ Diesel Range Organics (DRO); ☐ CT ETPH; ☐ MA DEP EPH w/all targets ☐ EPH Carbon Ranges only; ☐ Hydrocarbon Fingerprint (GC/FID by ASTM D3328-90-Mod.); ☐ TPH by GC/FID (8100 Mod) Quantitative Only. Vol. TPH: ☐ Gasoline Range Organics (GRO); ☐ MA DEP VPH w/all targets ☐ VPH Carbon ranges only
Haz. Waste — ☐ TCLP ☐ SPLP ☐ 8 Metals ☐ Pb only ☐ VOA ☐ Semi VOA ☐ Pesticides ☐ Herbicides; ☐ Corrosivity (as pH) ☐ Reactivity ☐ Ignitability (as Flashpoint) ☐ Paint Filter; ☐ MA Basic Disposal Criteria: 8260B, TPH by GC, PCBs, 5 Metals, Corrosivity, Ignitability, Reactivity
General Chemistry — ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Fluoride ☐ Sulfate; ☐ Dissolved Phosphorus; ☐ Ammonia ☐ TKN ☐ Total Phosphorus ☐ Total N (as NO2/NO3/TKN); ☐ Oil & Grease; ☐ COD ☐ TOC; ☐ BOD ☐ TDS ☐ TSS ☐ TS ☐ Alkalinity; ☐ Cyanide, Total ☐ Cyanide, Physiologically Available; ☐ pH ☐ Dissolved Oxygen ☐ Turbidity; ☐ Total Coliform ☐ Fecal Coliform ☐ HPC
Other

Date	Time	Sample Identification	Matrix: Groundwater	Type: Grab	Number	40mL VOA Vial	Preservation: HCl	Preservation: Ice	Filtered: No	Laboratory Number (Lab Use Only)	8260B +MTBE	8021B Halocarbons
10-8-03	2:20	Air Stripper Inf	X	X	3	3		X	X	105712 - 1		X
↓	2:10	Air Stripper EFF	X	X	3	3	X	X	X	2	X	

NOTE: INFLUENT NOT PRESERVED/ ACIDIFIED.

REMARKS / SPECIAL INSTRUCTIONS

MA DEP MCP Data Enhancement Affirmation

☐ YES ☐ NO MCP Data Certification is required.

☐ YES ☐ NO MCP minimum Field QC requirements have been met for this project. *(Metals, hexavalent chromium and cyanide analyses require one matrix spike per 20 samples)*

☐ YES ☐ NO MCP Drinking Water samples required. *(Require collection of contingent duplicate samples. Trip blanks are also required, if VOA samples collected)*

Signature: ______

DATA QUALITY OBJECTIVES

Regulatory Program

State	Standard	Deliverables
☐ CT	☒ MCP GW-1/S-1	☐ PWS Form
☐ ME	☒ MCP GW-2/S-1	☐ ______
☐ MA	☐ NY STARS	☐ ______
☐ NH	☐ Drinking Water	
☐ NY	☐ Wastewater	
☐ RI	☐ Waste Disposal	
☐ VT	☐ Dredge Material	
☐ ___	☐ ______	

Project Specific QC

Many regulatory programs and EPA methods require project specific QC. Project specific QC includes Sample Duplicates, Matrix Spikes, and/or Matrix Spike Duplicates. Laboratory QC is not project specific unless prearranged. Project specific QC samples are charged on a per sample basis. **Each MS, MSD and Sample Duplicate requires an additional sample aliquot.**

Project Specific QC Required
- ☐ Sample Duplicate
- ☐ Matrix Spike
- ☐ Matrix Spike Duplicate

Selection of QC Sample
- ☐ Please use sample: ______

CHAIN-OF-CUSTODY RECORD

NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof.

Relinquished by	Date	Time	Received by	
Relinquished by Sampler: Jack Potter	10-8-03	3:30	Received by: [illegible signature]	Receipt Temperature: ☐ Ice ☐ Refrigerated 2-6°C Recommended
Relinquished by: [illegible signature]	[illegible]	[illegible]	Received by: [illegible signature]	Container Count:
Relinquished by:	Date	Time	Received by Laboratory:	Shipping/Airbill Number:

Method of Shipment: ☐ GWA Courier ☐ Express Mail ☐ Federal Express ☐ UPS ☐ Hand ☐ ______

Custody Seal Number:

GROUNDWATER ANALYTICAL

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Perent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Sample

Category:	**EPA Method 8021B Halogenated**	Instrument ID:	**GC-2 HP 5890**
QC Batch ID:	**VG2-2490-W**	Analyzed:	**10-14-03 11:17**
Matrix:	**Aqueous**	Analyst:	**JH**
Units:	**ug/L**		

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits
75-71-8	Dichlorodifluoromethane	20	24	**119 %**	70 - 130 %
74-87-3	Chloromethane	20	21	**105 %**	70 - 130 %
75-01-4	Vinyl Chloride	20	17	**87 %**	70 - 130 %
74-83-9	Bromomethane	20	20	**99 %**	70 - 130 %
75-00-3	Chloroethane	20	19	**96 %**	70 - 130 %
75-69-4	Trichlorofluoromethane	20	21	**104 %**	70 - 130 %
75-35-4	1,1-Dichloroethene	20	20	**100 %**	70 - 130 %
75-09-2	Methylene Chloride	20	20	**99 %**	70 - 130 %
156-60-5	*trans*-1,2-Dichloroethene	20	21	**107 %**	70 - 130 %
75-34-3	1,1-Dichloroethane	20	21	**103 %**	70 - 130 %
156-59-2	*cis*-1,2-Dichloroethene	20	23	**114 %**	70 - 130 %
67-66-3	Chloroform	20	20	**102 %**	70 - 130 %
107-06-2	1,2-Dichloroethane	20	20	**100 %**	70 - 130 %
71-55-6	1,1,1-Trichloroethane	20	21	**103 %**	70 - 130 %
56-23-5	Carbon Tetrachloride	20	21	**104 %**	70 - 130 %
78-87-5	1,2-Dichloropropane	20	21	**104 %**	70 - 130 %
79-01-6	Trichloroethene	20	20	**101 %**	70 - 130 %
75-27-4	Bromodichloromethane	20	20	**100 %**	70 - 130 %
110-75-8	2-Chloroethyl Vinyl Ether	20	21	**103 %**	70 - 130 %
10061-01-5	*cis*-1,3-Dichloropropene	20	21	**104 %**	70 - 130 %
10061-02-6	*trans*-1,3-Dichloropropene	20	19	**96 %**	70 - 130 %
79-00-5	1,1,2-Trichloroethane	20	20	**99 %**	70 - 130 %
124-48-1	Dibromochloromethane	20	20	**102 %**	70 - 130 %
127-18-4	Tetrachloroethene	20	20	**102 %**	70 - 130 %
108-90-7	Chlorobenzene	20	21	**104 %**	70 - 130 %
75-25-2	Bromoform	20	20	**101 %**	70 - 130 %
79-34-5	1,1,2,2-Tetrachloroethane	20	20	**98 %**	70 - 130 %
541-73-1	1,3-Dichlorobenzene	20	20	**102 %**	70 - 130 %
106-46-7	1,4-Dichlorobenzene	20	21	**104 %**	70 - 130 %
95-50-1	1,2-Dichlorobenzene	20	20	**102 %**	70 - 130 %

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
1,2-Dichloroethane-d4	10	9.8	**98 %**	70 - 130%

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

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8021B Halogenated	Instrument ID:	GC-2 HP 5890
QC Batch ID:	VG2-2490-W	Analyzed:	10-14-03 11:59
Matrix:	Aqueous	Analyst:	JH

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	5
74-87-3	Chloromethane	BRL		ug/L	5
75-01-4	Vinyl Chloride	BRL		ug/L	2
74-83-9	Bromomethane	BRL		ug/L	5
75-00-3	Chloroethane	BRL		ug/L	5
75-69-4	Trichlorofluoromethane	BRL		ug/L	1
75-35-4	1,1-Dichloroethene	BRL		ug/L	1
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	1
75-34-3	1,1-Dichloroethane	BRL		ug/L	1
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	1
67-66-3	Chloroform	BRL		ug/L	1
107-06-2	1,2-Dichloroethane	BRL		ug/L	1
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	1
56-23-5	Carbon Tetrachloride	BRL		ug/L	1
78-87-5	1,2-Dichloropropane	BRL		ug/L	1
79-01-6	Trichloroethene	BRL		ug/L	1
75-27-4	Bromodichloromethane	BRL		ug/L	1
110-75-8	2-Chloroethyl Vinyl Ether	BRL		ug/L	5
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	1
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	1
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	1
124-48-1	Dibromochloromethane	BRL		ug/L	1
127-18-4	Tetrachloroethene	BRL		ug/L	1
108-90-7	Chlorobenzene	BRL		ug/L	1
75-25-2	Bromoform	BRL		ug/L	1
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	1
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	1
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	1
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	1

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
1,2-Dichloroethane-d4	10	10	101 %	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

Quality Control Report
Laboratory Control Sample

Category:	EPA Method 8260B	Instrument ID:	MS-5 HP 6890
QC Batch ID:	VM5-2660-WL	Analyzed:	10-13-03 09:58
Matrix:	Aqueous	Analyst:	LMG
Units:	ug/L		

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits
75-71-8	Dichlorodifluoromethane	25	26	103 %	70 - 130 %
74-87-3	Chloromethane	25	25	101 %	70 - 130 %
75-01-4	Vinyl Chloride	25	28	111 %	70 - 130 %
74-83-9	Bromomethane	25	29	118 %	70 - 130 %
75-00-3	Chloroethane	25	29	115 %	70 - 130 %
75-69-4	Trichlorofluoromethane	25	32	128 %	70 - 130 %
60-29-7	Diethyl Ether	50	55	111 %	70 - 130 %
75-35-4	1,1-Dichloroethene	25	28	112 %	70 - 130 %
76-13-1	1,1,2-Trichlorotrifluoroethane	50	70	141 % q	70 - 130 %
67-64-1	Acetone	50	56	113 %	70 - 130 %
75-15-0	Carbon Disulfide	50	57	114 %	70 - 130 %
75-09-2	Methylene Chloride	25	25	100 %	70 - 130 %
156-60-5	*trans*- 1,2-Dichloroethene	25	25	102 %	70 - 130 %
1634-04-4	Methyl *tert*- butyl Ether (MTBE)	25	28	112 %	70 - 130 %
75-34-3	1,1-Dichloroethane	25	26	104 %	70 - 130 %
594-20-7	2,2-Dichloropropane	25	30	119 %	70 - 130 %
156-59-2	*cis*- 1,2-Dichloroethene	25	26	106 %	70 - 130 %
78-93-3	2-Butanone (MEK)	50	48	95 %	70 - 130 %
74-97-5	Bromochloromethane	25	28	111 %	70 - 130 %
109-99-9	Tetrahydrofuran (THF)	50	47	94 %	70 - 130 %
67-66-3	Chloroform	25	27	107 %	70 - 130 %
71-55-6	1,1,1-Trichloroethane	25	28	111 %	70 - 130 %
56-23-5	Carbon Tetrachloride	25	29	115 %	70 - 130 %
563-58-6	1,1-Dichloropropene	25	26	105 %	70 - 130 %
71-43-2	Benzene	25	26	106 %	70 - 130 %
107-06-2	1,2-Dichloroethane	25	28	111 %	70 - 130 %
79-01-6	Trichloroethene	25	26	105 %	70 - 130 %
78-87-5	1,2-Dichloropropane	25	26	104 %	70 - 130 %
74-95-3	Dibromomethane	25	28	112 %	70 - 130 %
75-27-4	Bromodichloromethane	25	28	114 %	70 - 130 %
123-91-1	1,4-Dioxane	500	600	120 %	70 - 130 %
10061-01-5	*cis*- 1,3-Dichloropropene	25	27	107 %	70 - 130 %
108-10-1	4-Methyl-2-Pentanone (MIBK)	50	51	102 %	70 - 130 %
108-88-3	Toluene	25	26	105 %	70 - 130 %
10061-02-6	*trans*- 1,3-Dichloropropene	25	26	104 %	70 - 130 %
79-00-5	1,1,2-Trichloroethane	25	27	108 %	70 - 130 %
127-18-4	Tetrachloroethene	25	29	116 %	70 - 130 %
142-28-9	1,3-Dichloropropane	25	27	107 %	70 - 130 %
591-78-6	2-Hexanone	50	52	104 %	70 - 130 %
124-48-1	Dibromochloromethane	25	28	111 %	70 - 130 %
106-93-4	1,2-Dibromoethane (EDB)	25	27	109 %	70 - 130 %
108-90-7	Chlorobenzene	25	26	103 %	70 - 130 %
630-20-6	1,1,1,2-Tetrachloroethane	25	27	109 %	70 - 130 %
100-41-4	Ethylbenzene	25	28	111 %	70 - 130 %
108-38-3/106-42-3	*meta*- Xylene and *para*- Xylene	50	58	117 %	70 - 130 %
95-47-6	*ortho*- Xylene	25	29	115 %	70 - 130 %
100-42-5	Styrene	25	30	118 %	70 - 130 %
75-25-2	Bromoform	25	30	118 %	70 - 130 %
98-82-8	Isopropylbenzene	25	26	105 %	70 - 130 %

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Sample

Category:	EPA Method 8260B	Instrument ID:	MS-5 HP 6890
QC Batch ID:	VM5-2660-WL	Analyzed:	10-13-03 09:58
Matrix:	Aqueous	Analyst:	LMG
Units:	ug/L		

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits
108-86-1	Bromobenzene	25	26	103 %	70 - 130 %
79-34-5	1,1,2,2-Tetrachloroethane	25	28	111 %	70 - 130 %
96-18-4	1,2,3-Trichloropropane	25	26	105 %	70 - 130 %
103-65-1	*n*-Propylbenzene	25	27	110 %	70 - 130 %
95-49-8	2-Chlorotoluene	25	26	105 %	70 - 130 %
108-67-8	1,3,5-Trimethylbenzene	25	28	113 %	70 - 130 %
106-43-4	4-Chlorotoluene	25	27	106 %	70 - 130 %
98-06-6	*tert*-Butylbenzene	25	28	111 %	70 - 130 %
95-63-6	1,2,4-Trimethylbenzene	25	29	117 %	70 - 130 %
135-98-8	*sec*-Butylbenzene	25	29	117 %	70 - 130 %
541-73-1	1,3-Dichlorobenzene	25	27	110 %	70 - 130 %
99-87-6	4-Isopropyltoluene	25	29	118 %	70 - 130 %
106-46-7	1,4-Dichlorobenzene	25	28	112 %	70 - 130 %
95-50-1	1,2-Dichlorobenzene	25	27	109 %	70 - 130 %
104-51-8	*n*-Butylbenzene	25	31	123 %	70 - 130 %
96-12-8	1,2-Dibromo-3-chloropropane	25	29	114 %	70 - 130 %
120-82-1	1,2,4-Trichlorobenzene	25	30	119 %	70 - 130 %
87-68-3	Hexachlorobutadiene	25	31	124 %	70 - 130 %
91-20-3	Naphthalene	25	31	123 %	70 - 130 %
87-61-6	1,2,3-Trichlorobenzene	25	32	127 %	70 - 130 %
75-65-0	*tert*-Butyl Alcohol (TBA)	500	510	102 %	70 - 130 %
108-20-3	Di-isopropyl Ether (DIPE)	25	26	105 %	70 - 130 %
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	25	27	110 %	70 - 130 %
994-05-8	*tert*-Amyl Methyl Ether (TAME)	25	25	100 %	70 - 130 %

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	12	116 %	70 - 130 %
1,2-Dichlorobenzene-d_4	10	11	112 %	70 - 130 %
Toluene-d_8	10	11	114 %	70 - 130 %
4-Bromofluorobenzene	10	11	107 %	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: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-5 HP 6890
QC Batch ID:	VM5-2660-WB	Analyzed:	10-13-03 10:51
Matrix:	Aqueous	Analyst:	LMG

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)	BRL		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
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category: EPA Method 8260B
QC Batch ID: VM5-2660-WB
Matrix: Aqueous

Instrument ID: MS-5 HP 6890
Analyzed: 10-13-03 10:51
Analyst: LMG

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
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	BRL		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	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		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	11	114 %	70 - 130 %
1,2-Dichloroethane-d_4	10	11	114 %	70 - 130 %
Toluene-d_8	10	11	111 %	70 - 130 %
4-Bromofluorobenzene	10	11	108 %	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

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil
http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA
http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater
http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water
http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater
http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste
http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater)
http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage
http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water
http://www.vermontdrinkingwater.org/wsops/labtable.PDF

GROUNDWATER ANALYTICAL

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www.groundwateranalytical.com

December 3, 2003

DEC / 4 2003

Mr. Chris Gill
Resource Control Associates
474 Broadway
Pawtucket, RI 02860

LABORATORY REPORT

Project: **Shaw's Plaza/A6525**
Lab ID: **67084**
Received: **11-17-03**

Dear Chris:

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

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

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

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

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

Sincerely,

Eric H. Jensen
Operations Manager

EHJ/kal
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project:	**Shaw's Plaza/A6525**	Delivery:	**GWA Courier**	Temperature:	**1.5'C**
Client:	**Resource Control Associates**	Airbill:	n/a	Chain of Custody:	**Present**
Lab ID:	**67084**	Lab Receipt:	**11-17-03**	Custody Seal(s):	**n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
67084-1	A/S Influent		Aqueous	11/14/03 15:10	EPA 8021B Volatile Aromatics and Halocarbons				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C305969	40 mL VOA Vial	Industrial	BX10022	HCl	R-3722D	10-29-03	11-12-03		
C305962	40 mL VOA Vial	Industrial	BX10022	HCl	R-3722D	10-29-03	11-12-03		
C305947	40 mL VOA Vial	Industrial	BX10022	HCl	R-3722D	10-29-03	11-12-03		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
67084-2	A/S Effluent		Aqueous	11/14/03 15:00	EPA 8260B Volatile Organics with Oxygenates				
Con ID	Container	Vendor	QC Lot	Preserv	QC Lot	Prep	Ship		
C305948	40 mL VOA Vial	Industrial	BX10022	HCl	R-3722D	10-29-03	11-12-03		
C305939	40 mL VOA Vial	Industrial	BX10022	HCl	R-3722D	10-29-03	11-12-03		
C305945	40 mL VOA Vial	Industrial	BX10022	HCl	R-3722D	10-29-03	11-12-03		

GROUNDWATER ANALYTICAL

Data Certification

Project:	Shaw's Plaza/A6525	Lab ID:	67084
Client:	Resource Control Associates	Received:	11-17-03 18:15

MA DEP Compendium of Analytical Methods

Project Location:	n/a	MA DEP RTN:	n/a

This Form provides certifications for the following data set:

EPA 8260B: 67084-02
EPA 8021B: 67084-01

Sample Matrices:	Groundwater	(X)	Soil/Sediment	( )	Drinking Water	( )	Other	( )			
MCP SW-846 Methods Used	8260B	(X)	8151A	( )	8330	( )	6010B	( )	7470A/1A	( )	
	8270C	( )	8081A	( )	VPH	( )	6020	( )	9012A[2]	( )	
As specified in MA DEP Compendium of Analytical Methods (check all that apply)	8082	( )	8021B	(X)	EPH	( )	7000 S[3]	( )	Other	( )	

1. List Release Tracking Number (RTN), if known.
2. SW-846 Method 9012A (Equivalent to 9014) or MA DEP Physiologically Available Cyanide (PAC) Method
3. If SW-846 Methods 7000 Series. List individual method and analyte.

An affirmative response to questions A, B, C and D is required for "Presumptive Certainty" status.

A.	Were all samples received by the laboratory in a condition consistent with that described on the Chain-of-Custody documentation for the data set?	Yes
B.	Were all QA/QC procedures required for the specified analytical method(s) included in this report followed, including the requirement to note and discuss in a narrative QC data that did not meet appropriate performance standards or guidelines?	Yes
C.	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty," as described in Section 2.0 of the MA DEP document CAM VII A, *Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data*?	No
D.	VPH and EPH methods only: Was the VPH or EPH method run without significant modifications, as specified in Section 11.3?	n/a

A response to questions E and F below is required for "Presumptive Certainty" status.

E.	Were all QC performance standards and recommendations for the specified methods achieved?	No
F.	Were results for all analyte-list compounds/elements for the specified method(s) reported?	No

All No answers are addressed in the attached Project Narrative.

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

Signature:		Position:	Operations Manager
Printed Name:	Eric H. Jensen	Date:	12-03-03

GROUNDWATER ANALYTICAL

EPA Method 8021B
Aromatic and Halogenated Volatile Organics by GC/PID/ELCD

Field ID:	**A/S Influent**	Matrix:	**Aqueous**
Project:	**Shaw's Plaza/A6525**	Container:	**40 mL VOA Vial**
Client:	**Resource Control Associates**	Preservation:	**HCl/Cool**
Laboratory ID:	**67084-01**	QC Batch ID:	**VG2-2515-W**
Sampled:	**11-14-03 15:10**	Instrument ID:	**GC-2 HP 5890**
Received:	**11-17-03 18:15**	Sample Volume:	**5 mL**
Analyzed:	**11-19-03 23:41**	Dilution Factor:	**1**
Analyst:	**JH**		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	5
74-87-3	Chloromethane	BRL		ug/L	5
75-01-4	Vinyl Chloride	BRL		ug/L	2
74-83-9	Bromomethane	BRL		ug/L	5
75-00-3	Chloroethane	BRL		ug/L	5
75-69-4	Trichlorofluoromethane	BRL		ug/L	1
75-35-4	1,1-Dichloroethene	BRL		ug/L	1
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	1
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	5
75-34-3	1,1-Dichloroethane	BRL		ug/L	1
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	1
67-66-3	Chloroform	BRL		ug/L	1
107-06-2	1,2-Dichloroethane	BRL		ug/L	1
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	1
56-23-5	Carbon Tetrachloride	BRL		ug/L	1
71-43-2	Benzene	BRL		ug/L	1
78-87-5	1,2-Dichloropropane	BRL		ug/L	1
79-01-6	Trichloroethene	BRL		ug/L	1
75-27-4	Bromodichloromethane	BRL		ug/L	1
110-75-8	2-Chloroethyl Vinyl Ether	BRL		ug/L	5
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	1
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	1
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	1
108-88-3	Toluene	BRL		ug/L	1
124-48-1	Dibromochloromethane	BRL		ug/L	1
127-18-4	Tetrachloroethene	**40**		ug/L	1
108-90-7	Chlorobenzene	BRL		ug/L	1
100-41-4	Ethylbenzene	BRL		ug/L	1
108-38-3 / 106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	1
75-25-2	Bromoform	BRL		ug/L	1
95-47-6	*ortho*-Xylene	BRL		ug/L	1
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	1
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	1
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	1
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	1
91-20-3	Naphthalene	BRL		ug/L	5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
a,a,a-Trifluorotoluene	10	10	**103 %**	70 - 130%
1,2-Dichloroethane-d4	10	9.4	**94 %**	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 8260B
Volatile Organics by GC/MS

Field ID:	A/S Effluent	Matrix:	Aqueous
Project:	Shaw's Plaza/A6525	Container:	40 mL VOA Vial
Client:	Resource Control Associates	Preservation:	HCl/Cool
Laboratory ID:	67084-02	QC Batch ID:	VM8-0107-W
Sampled:	11-14-03 15:00	Instrument ID:	MS-8 Agilent 6890
Received:	11-17-03 18:15	Sample Volume:	25 mL
Analyzed:	11-24-03 12:01	Dilution Factor:	1
Analyst:	CMM		

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)	BRL		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:	**A/S Effluent**	Matrix:	**Aqueous**
Project:	**Shaw's Plaza/A6525**	Container:	**40 mL VOA Vial**
Client:	**Resource Control Associates**	Preservation:	**HCl/Cool**
Laboratory ID:	**67084-02**	QC Batch ID:	**VM8-0107-W**
Sampled:	**11-14-03 15:00**	Instrument ID:	**MS-8 Agilent 6890**
Received:	**11-17-03 18:15**	Sample Volume:	**25 mL**
Analyzed:	**11-24-03 12:01**	Dilution Factor:	**1**
Analyst:	**CMM**		

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	BRL		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	BRL		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	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		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	12	**119 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	12	**116 %**	70 - 130 %
Toluene-d_8	10	11	**111 %**	70 - 130 %
4-Bromofluorobenzene	10	11	**110 %**	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

Project Narrative

Project:	Shaw's Plaza/A6525	Lab ID:	67084
Client:	Resource Control Associates	Received:	11-17-03 18:15

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. No documentation discrepancies, changes, or amendments were noted.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. Project Non-conformance. Project 67084 was received at a temperature of 1.5'C. This measurement is outside the recommended range of 2-6'C. However, temperature measurements below the recommended range, but above freezing, are considered acceptable under NELAC sample acceptance criteria.

2. EPA 8021B Non-conformance: Samples 67084-01. Identification of analytes detected is tentative. Confirmation by a secondary column, or GC/MS analysis, was not performed for positive results. Groundwater Analytical recommends utilizing EPA 8260B for definitive identification of any analytes detected.

3. EPA 8021B Note: Samples 67084-01. Sample(s) were analyzed for only selected target analytes, as requested by client.

4. EPA 8260B Non-conformance: Sample 67084-02. Laboratory control sample (LCS) analytes 1,4-Dioxane, tert-Butyl Alcohol were above recommended recovery limits for QC batch VM8-0107-W.

GROUNDWATER ANALYTICAL

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Buzzards Bay, MA 02532
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www.groundwateranalytical.com

CHAIN-OF-CUSTODY RECORD AND WORK ORDER

№ 077354

Project Name: Shaw's Pawtx	Firm: Resource Connexs
Project Number: A6525	Address: 474 Broadway
Sampler Name: JP	City / State / Zip: Pawtucket, RI 02860
Project Manager: Chris Gill	Telephone: 401-728-6860

INSTRUCTIONS: Use separate line for each container (except replicates).

TURNAROUND

- [X] STANDARD (10 Business Days)
- [ ] PRIORITY (5 Business Days)
- [ ] RUSH (RAN- _____)
  (Rush requires Rush Authorization Number)
- [ ] Please Email to: _____
- [ ] Please FAX to: _____

BILLING

- [X] Purchase Order No.: E962
- [ ] Third Party Billing: _____
- [ ] GWA Quote: _____

ANALYSIS REQUEST

OPTIONS: Volatiles: ☐ TIC Search; Semivolatiles: ☐ Acid Only ☐ BN Only ☐ TIC Search; Pest/Herb/PCBs Extractable: ☐ Vol.; Metals: Specify for Water Samples ☐ Total ☐ Dissolved

SDWA: Volatiles: ☐ 524.2+MTBE; Semivolatiles: ☐ 525.2; Pest/Herb/PCBs: ☐ 505 ☐ 508 ☐ 531.1 ☐ 515.1; Metals: ☐ Lead and Copper

NPDES: Volatiles: ☐ 624 ☐ 602+MTBE ☐ 601 ☐ 601/602+MTBE; Semivolatiles: ☐ 625 ☐ 625 PAHs only; Pest/Herb/PCBs: ☐ 608 Pesticides ☐ 608 PCBs ☐ 515; Metals: ☐ 13 Priority Pollutant

RCRA/21E: Volatiles: ☐ 8260B TCL+MTBE ☐ 8260B; Semivolatiles: ☐ 8270C ☐ 8270C PAHs only; Pest/Herb/PCBs: ☐ 8081A Pesticides ☐ 8082 PCBs ☐ 8151A Herbicides; Metals: ☐ 8 RCRA ☐ 5 RCRA ☐ MA List Metals ☐ 23 TAL ☐ Specify:

Petroleum Hydrocarbon: Ext. TPH: ☐ TPH-IR ☐ Diesel Range Organics (DRO) ☐ CT ETPH ☐ MA DEP EPH w/all targets ☐ EPH Carbon Ranges only ☐ Hydrocarbon Fingerprint (GC/FID) by ASTM D3328-90-Mod.) ☐ TPH by GC/FID (8100 Mod) Quantitative Only; Vol. TPH: ☐ Gasoline Range Organics (GRO) ☐ MA DEP VPH w/all targets ☐ VPH Carbon ranges only

Haz. Waste: ☐ TCLP ☐ SPLP ☐ 8 Metals ☐ Pb only ☐ VOA ☐ Semi VOA ☐ Pesticides ☐ Herbicides ☐ Corrosivity (as pH) ☐ Reactivity ☐ Ignitability (as Flashpoint) ☐ Paint Filter ☐ MA Basic Disposal Criteria: 8260B, TPH by GC, PCBs, 5 Metals, Corrosivity, Ignitability, Reactivity

General Chemistry: ☐ Nitrate ☐ Nitrite ☐ Chloride ☐ Reactive ☐ Sulfide ☐ Dissolved Phosphorus ☐ Ammonia ☐ TKN ☐ Total Phosphorus ☐ Total N (as NO2/NO3/TKN) ☐ Oil & Grease ☐ COD ☐ TOC ☐ BOD ☐ TDS ☐ TSS ☐ TS ☐ Alkalinity ☐ Cyanide, Total ☐ Cyanide, Physiologically Available ☐ pH ☐ Dissolved Oxygen ☐ Turbidity

Other: ☐ Total Coliform ☐ Fecal Coliform ☐ HPC

Sampling DATE	Sampling TIME	SAMPLE IDENTIFICATION	Matrix: GROUNDWATER	DRINKING WATER	WASTEWATER	SOIL	OTHER SOLID	DILORGANIC LIQUID	Type: COMPOSITE	GRAB	Container(s) NUMBER	40mL VOA Vial	60mL/2 oz Glass	120mL/4 oz Amber Glass	250mL/8 oz Glass	500mL/16 oz Glass	1L/32 oz Amber Glass	250mL/8 oz Plastic	500mL/16 oz Plastic	1L/32 oz Plastic	120mL Sterile	Preservation: HCl	HNO3	H2SO4	NaOH	Methanol	Sodium Bisulfite	ICE	Filtered: YES	NO	LABORATORY NUMBER (Lab Use Only)
[illegible]	3:10	A/S Influent	X							X	3	3										X						X	X	1
	3:0[illegible]	A/S Effluent	X							X	3	3										X						X	X	2

REMARKS / SPECIAL INSTRUCTIONS

MA DEP MCP Data Enhancement Affirmation

- ☐ YES ☐ NO MCP Data Certification is required.
- ☐ YES ☐ NO MCP minimum Field QC requirements have been met for this project. *(Metals, hexavalent chromium and cyanide analyses require one matrix spike per 20 samples)*
- ☐ YES ☐ NO MCP Drinking Water samples required. *(Require collection of contingent duplicate samples. Trip blanks are also required, if VOA samples collected*

Signature: _____

DATA QUALITY OBJECTIVES

Regulatory Program

State	Standard	Deliverables
☐ CT	☒ MCP GW-1/S-1	☐ PWS Form
☐ ME	☐ MCP GW-2/S-1	☐ _____
☒ MA	☐ NY STARS	☐ _____
☐ NH	☐ Drinking Water	
☐ NY	☐ Wastewater	
☐ RI	☐ Waste Disposal	
☐ VT	☐ Dredge Material	
☐ ___	☐ _____	

Project Specific QC

Many regulatory programs and EPA methods require project specific QC. Project specific QC includes Sample Duplicates, Matrix Spikes, and/or Matrix Spike Duplicates. Laboratory QC is not project specific unless prearranged. Project specific QC samples are charged on a per sample basis. **Each MS, MSD and Sample Duplicate requires an additional sample aliquot.**

Project Specific QC Required	Selection of QC Sample
☐ Sample Duplicate	☐ Please use sample:
☐ Matrix Spike	_____
☐ Matrix Spike Duplicate	

CHAIN-OF-CUSTODY RECORD

NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof.

Relinquished by Sampler:	Date	Time	Received by:	Receipt Temperature:
[signature]	11/17/03	[illegible]	Alan Maddigan	☐ Ice ☒ Refrigerated 2-6°C Recommended 1.5°C
Relinquished by:	**Date**	**Time**	**Received by:**	**Container Count:**
Alan Maddigan	11/17/03	6:15	[signature]	6
Relinquished by:	**Date**	**Time**	**Received by Laboratory:**	**Shipping/Airbill Number:**

Method of Shipment: ☒ GWA Courier ☐ Express Mail ☐ Federal Express ☐ UPS ☐ Hand ☐ _____

Custody Seal Number:

GROUNDWATER ANALYTICAL

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Perent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Sample

Category:	EPA Method 8260B	Instrument ID:	MS-8 Agilent 6890
QC Batch ID:	VM8-0107-WL	Analyzed:	11-24-03 10:24
Matrix:	Aqueous	Analyst:	CMM
Units:	ug/L		

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits
75-71-8	Dichlorodifluoromethane	10	8.5	85 %	70 - 130 %
74-87-3	Chloromethane	10	10	101 %	70 - 130 %
75-01-4	Vinyl Chloride	10	10	101 %	70 - 130 %
74-83-9	Bromomethane	10	10	103 %	70 - 130 %
75-00-3	Chloroethane	10	10	102 %	70 - 130 %
75-69-4	Trichlorofluoromethane	10	10	103 %	70 - 130 %
60-29-7	Diethyl Ether	20	24	120 %	70 - 130 %
75-35-4	1,1-Dichloroethene	10	9.2	92 %	70 - 130 %
76-13-1	1,1,2-Trichlorotrifluoroethane	20	25	125 %	70 - 130 %
67-64-1	Acetone	20	24	122 %	70 - 130 %
75-15-0	Carbon Disulfide	20	22	111 %	70 - 130 %
75-09-2	Methylene Chloride	10	9.1	91 %	70 - 130 %
156-60-5	*trans*- 1,2-Dichloroethene	10	8.9	89 %	70 - 130 %
1634-04-4	Methyl *tert*- butyl Ether (MTBE)	10	12	118 %	70 - 130 %
75-34-3	1,1-Dichloroethane	10	9.1	91 %	70 - 130 %
594-20-7	2,2-Dichloropropane	10	9.6	96 %	70 - 130 %
156-59-2	*cis*- 1,2-Dichloroethene	10	9.4	94 %	70 - 130 %
78-93-3	2-Butanone (MEK)	20	19	96 %	70 - 130 %
74-97-5	Bromochloromethane	10	9.8	98 %	70 - 130 %
109-99-9	Tetrahydrofuran (THF)	20	23	117 %	70 - 130 %
67-66-3	Chloroform	10	9.2	92 %	70 - 130 %
71-55-6	1,1,1-Trichloroethane	10	9.1	91 %	70 - 130 %
56-23-5	Carbon Tetrachloride	10	9.3	93 %	70 - 130 %
563-58-6	1,1-Dichloropropene	10	8.8	88 %	70 - 130 %
71-43-2	Benzene	10	9.5	95 %	70 - 130 %
107-06-2	1,2-Dichloroethane	10	9	90 %	70 - 130 %
79-01-6	Trichloroethene	10	9.4	94 %	70 - 130 %
78-87-5	1,2-Dichloropropane	10	9.6	96 %	70 - 130 %
74-95-3	Dibromomethane	10	9.6	96 %	70 - 130 %
75-27-4	Bromodichloromethane	10	9.6	96 %	70 - 130 %
123-91-1	1,4-Dioxane	200	480	242 % q	70 - 130 %
10061-01-5	*cis*- 1,3-Dichloropropene	10	9.5	95 %	70 - 130 %
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	23	116 %	70 - 130 %
108-88-3	Toluene	10	9.4	94 %	70 - 130 %
10061-02-6	*trans*- 1,3-Dichloropropene	10	9.2	92 %	70 - 130 %
79-00-5	1,1,2-Trichloroethane	10	9.9	99 %	70 - 130 %
127-18-4	Tetrachloroethene	10	9.8	98 %	70 - 130 %
142-28-9	1,3-Dichloropropane	10	9.7	97 %	70 - 130 %
591-78-6	2-Hexanone	20	24	118 %	70 - 130 %
124-48-1	Dibromochloromethane	10	9.9	99 %	70 - 130 %
106-93-4	1,2-Dibromoethane (EDB)	10	10	100 %	70 - 130 %
108-90-7	Chlorobenzene	10	9.8	98 %	70 - 130 %
630-20-6	1,1,1,2-Tetrachloroethane	10	10	100 %	70 - 130 %
100-41-4	Ethylbenzene	10	9.7	97 %	70 - 130 %
108-38-3/106-42-3	*meta*- Xylene and *para*- Xylene	20	19	94 %	70 - 130 %
95-47-6	*ortho*- Xylene	10	9.8	98 %	70 - 130 %
100-42-5	Styrene	10	9.9	99 %	70 - 130 %
75-25-2	Bromoform	10	11	107 %	70 - 130 %
98-82-8	Isopropylbenzene	10	9.5	95 %	70 - 130 %

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Sample

Category:	EPA Method 8260B	Instrument ID:	MS-8 Agilent 6890
QC Batch ID:	VM8-0107-WL	Analyzed:	11-24-03 10:24
Matrix:	Aqueous	Analyst:	CMM
Units:	ug/L		

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits
108-86-1	Bromobenzene	10	9.5	95 %	70 - 130 %
79-34-5	1,1,2,2-Tetrachloroethane	10	11	107 %	70 - 130 %
96-18-4	1,2,3-Trichloropropane	10	9.6	96 %	70 - 130 %
103-65-1	*n*-Propylbenzene	10	9.4	94 %	70 - 130 %
95-49-8	2-Chlorotoluene	10	9.5	95 %	70 - 130 %
108-67-8	1,3,5-Trimethylbenzene	10	9.5	95 %	70 - 130 %
106-43-4	4-Chlorotoluene	10	9.5	95 %	70 - 130 %
98-06-6	*tert*-Butylbenzene	10	9.5	95 %	70 - 130 %
95-63-6	1,2,4-Trimethylbenzene	10	9.8	98 %	70 - 130 %
135-98-8	*sec*-Butylbenzene	10	9.4	94 %	70 - 130 %
541-73-1	1,3-Dichlorobenzene	10	9.5	95 %	70 - 130 %
99-87-6	4-Isopropyltoluene	10	9.6	96 %	70 - 130 %
106-46-7	1,4-Dichlorobenzene	10	9.7	97 %	70 - 130 %
95-50-1	1,2-Dichlorobenzene	10	9.7	97 %	70 - 130 %
104-51-8	*n*-Butylbenzene	10	9.5	95 %	70 - 130 %
96-12-8	1,2-Dibromo-3-chloropropane	10	10	101 %	70 - 130 %
120-82-1	1,2,4-Trichlorobenzene	10	10	101 %	70 - 130 %
87-68-3	Hexachlorobutadiene	10	9.8	98 %	70 - 130 %
91-20-3	Naphthalene	10	10	104 %	70 - 130 %
87-61-6	1,2,3-Trichlorobenzene	10	10	100 %	70 - 130 %
75-65-0	*tert*-Butyl Alcohol (TBA)	200	290	147 % q	70 - 130 %
108-20-3	Di-isopropyl Ether (DIPE)	10	9.5	95 %	70 - 130 %
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	10	10	104 %	70 - 130 %
994-05-8	*tert*-Amyl Methyl Ether (TAME)	10	9.6	96 %	70 - 130 %

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
Dibromofluoromethane	10	11	115 %	70 - 130 %
1,2-Dichlorobenzene-d_4	10	11	111 %	70 - 130 %
Toluene-d_8	10	11	113 %	70 - 130 %
4-Bromofluorobenzene	10	11	110 %	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: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-8 Agilent 6890
QC Batch ID:	VM8-0107-WB	Analyzed:	11-24-03 11:17
Matrix:	Aqueous	Analyst:	CMM

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)	BRL		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
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-8 Agilent 6890
QC Batch ID:	VM8-0107-WB	Analyzed:	11-24-03 11:17
Matrix:	Aqueous	Analyst:	CMM

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
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	BRL		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	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		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	12	**119 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	12	**116 %**	70 - 130 %
Toluene-d_8	10	11	**112 %**	70 - 130 %
4-Bromofluorobenzene	10	11	**111 %**	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

Quality Control Report
Laboratory Control Sample

Category:	EPA Method 8021B	Instrument ID:	GC-2 HP 5890
QC Batch ID:	VG2-2515-W	Analyzed:	11-19-03 14:00
Matrix:	Aqueous	Analyst:	JH
Units:	ug/L		

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits
75-71-8	Dichlorodifluoromethane	20	23	**113 %**	70 - 130 %
74-87-3	Chloromethane	20	22	**112 %**	70 - 130 %
75-01-4	Vinyl Chloride	20	18	**91 %**	70 - 130 %
74-83-9	Bromomethane	20	21	**104 %**	70 - 130 %
75-00-3	Chloroethane	20	20	**98 %**	70 - 130 %
75-69-4	Trichlorofluoromethane	20	17	**85 %**	70 - 130 %
75-35-4	1,1-Dichloroethene	20	19	**96 %**	70 - 130 %
75-09-2	Methylene Chloride	20	21	**107 %**	70 - 130 %
156-60-5	*trans*-1,2-Dichloroethene	20	22	**109 %**	70 - 130 %
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	20	22	**111 %**	70 - 130 %
75-34-3	1,1-Dichloroethane	20	21	**106 %**	70 - 130 %
156-59-2	*cis*-1,2-Dichloroethene	20	23	**114 %**	70 - 130 %
67-66-3	Chloroform	20	21	**103 %**	70 - 130 %
107-06-2	1,2-Dichloroethane	20	21	**104 %**	70 - 130 %
71-55-6	1,1,1-Trichloroethane	20	21	**105 %**	70 - 130 %
56-23-5	Carbon Tetrachloride	20	21	**107 %**	70 - 130 %
71-43-2	Benzene	20	20	**102 %**	70 - 130 %
78-87-5	1,2-Dichloropropane	20	21	**103 %**	70 - 130 %
79-01-6	Trichloroethene	20	20	**100 %**	70 - 130 %
75-27-4	Bromodichloromethane	20	20	**101 %**	70 - 130 %
110-75-8	2-Chloroethyl Vinyl Ether	20	22	**112 %**	70 - 130 %
10061-01-5	*cis*-1,3-Dichloropropene	20	21	**106 %**	70 - 130 %
10061-02-6	*trans*-1,3-Dichloropropene	20	20	**99 %**	70 - 130 %
79-00-5	1,1,2-Trichloroethane	20	21	**104 %**	70 - 130 %
108-88-3	Toluene	20	21	**103 %**	70 - 130 %
124-48-1	Dibromochloromethane	20	21	**104 %**	70 - 130 %
127-18-4	Tetrachloroethene	20	21	**103 %**	70 - 130 %
108-90-7	Chlorobenzene	20	21	**103 %**	70 - 130 %
100-41-4	Ethylbenzene	20	20	**100 %**	70 - 130 %
108-38-3 / 106-42-3	*meta*-Xylene and *para*-Xylene	40	42	**106 %**	70 - 130 %
75-25-2	Bromoform	20	21	**106 %**	70 - 130 %
95-47-6	*ortho*-Xylene	20	20	**99 %**	70 - 130 %
79-34-5	1,1,2,2-Tetrachloroethane	20	21	**107 %**	70 - 130 %
541-73-1	1,3-Dichlorobenzene	20	20	**102 %**	70 - 130 %
106-46-7	1,4-Dichlorobenzene	20	21	**104 %**	70 - 130 %
95-50-1	1,2-Dichlorobenzene	20	20	**101 %**	70 - 130 %
91-20-3	Naphthalene	20	21	**107 %**	70 - 130 %

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
a,a,a-Trifluorotoluene	10	10	**101 %**	70 - 130%
1,2-Dichloroethane-d4	10	9.7	**97 %**	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: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8021B	Instrument ID:	GC-2 HP 5890
QC Batch ID:	VG2-2515-W	Analyzed:	11-19-03 14:37
Matrix:	Aqueous	Analyst:	JH

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
75-71-8	Dichlorodifluoromethane	BRL		ug/L	5
74-87-3	Chloromethane	BRL		ug/L	5
75-01-4	Vinyl Chloride	BRL		ug/L	2
74-83-9	Bromomethane	BRL		ug/L	5
75-00-3	Chloroethane	BRL		ug/L	5
75-69-4	Trichlorofluoromethane	BRL		ug/L	1
75-35-4	1,1-Dichloroethene	BRL		ug/L	1
75-09-2	Methylene Chloride	BRL		ug/L	2.5
156-60-5	*trans*-1,2-Dichloroethene	BRL		ug/L	1
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	BRL		ug/L	5
75-34-3	1,1-Dichloroethane	BRL		ug/L	1
156-59-2	*cis*-1,2-Dichloroethene	BRL		ug/L	1
67-66-3	Chloroform	BRL		ug/L	1
107-06-2	1,2-Dichloroethane	BRL		ug/L	1
71-55-6	1,1,1-Trichloroethane	BRL		ug/L	1
56-23-5	Carbon Tetrachloride	BRL		ug/L	1
71-43-2	Benzene	BRL		ug/L	1
78-87-5	1,2-Dichloropropane	BRL		ug/L	1
79-01-6	Trichloroethene	BRL		ug/L	1
75-27-4	Bromodichloromethane	BRL		ug/L	1
110-75-8	2-Chloroethyl Vinyl Ether	BRL		ug/L	5
10061-01-5	*cis*-1,3-Dichloropropene	BRL		ug/L	1
10061-02-6	*trans*-1,3-Dichloropropene	BRL		ug/L	1
79-00-5	1,1,2-Trichloroethane	BRL		ug/L	1
108-88-3	Toluene	BRL		ug/L	1
124-48-1	Dibromochloromethane	BRL		ug/L	1
127-18-4	Tetrachloroethene	BRL		ug/L	1
108-90-7	Chlorobenzene	BRL		ug/L	1
100-41-4	Ethylbenzene	BRL		ug/L	1
108-38-3 / 106-42-3	*meta*-Xylene and *para*-Xylene	BRL		ug/L	1
75-25-2	Bromoform	BRL		ug/L	1
95-47-6	*ortho*-Xylene	BRL		ug/L	1
79-34-5	1,1,2,2-Tetrachloroethane	BRL		ug/L	1
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	1
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	1
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	1
91-20-3	Naphthalene	BRL		ug/L	5

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
a,a,a-Trifluorotoluene	10	11	**107 %**	70 - 130%
1,2-Dichloroethane-d4	10	10	**104 %**	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

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil
http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA
http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater
http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water
http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater
http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste
http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater)
http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage
http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water
http://www.vermontdrinkingwater.org/wsops/labtable.PDF

GROUNDWATER ANALYTICAL

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October 27, 2005

Mr. Barrett Smith
Resource Control Associates
474 Broadway
Pawtucket, RI 02860

LABORATORY REPORT

Project: **Shaw's Plaza/A6525A**
Lab ID: **88535**
Received: **10-20-05**

Dear Barrett:

Enclosed are the analytical results for the above referenced project. The project was processed for Priority 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/smd
Enclosures

GROUNDWATER ANALYTICAL

Sample Receipt Report

Project:	**Shaw's Plaza/A6525A**	Delivery:	**GWA Courier**	Temperature:	**2.0'C**
Client:	**Resource Control Associates**	Airbill:	**n/a**	Chain of Custody:	**Present**
Lab ID:	**88535**	Lab Receipt:	**10-20-05**	Custody Seal(s):	**n/a**

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-1	RW-2		Aqueous	10/20/05 12:00	EPA 8260B Volatile Organics with Oxygenates				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C684299	40 mL VOA Vial	Proline	BX18467	HCl	R-4601F	10-05-05	n/a		
C684291	40 mL VOA Vial	Proline	BX18467	HCl	R-4601F	10-05-05	n/a		
C684281	40 mL VOA Vial	Proline	BX18467	HCl	R-4601F	10-05-05	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-2	RW-2		Aqueous	10/20/05 12:00	EPA 8270C Semivolatile Organics				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C618132	1 L Amber Glass	Proline	BX18262	None	n/a	n/a	n/a		
C615914	1 L Amber Glass	Proline	BX18336	None	n/a	n/a	10-11-05		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-3	RW-2		Aqueous	10/20/05 12:00	EPA 608 PCBs				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C618134	1 L Amber Glass	Proline	BX18262	None	n/a	n/a	n/a		
C618133	1 L Amber Glass	Proline	BX18262	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-4	RW-2		Aqueous	10/20/05 12:00	EPA 1664 Hexane Extractable Material				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C660791	1 L Amber Glass	Proline	BX18046	H2SO4	R-4610A	10-13-05	n/a		
C660789	1 L Amber Glass	Proline	BX18046	H2SO4	R-4610A	10-13-05	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-5	RW-2		Aqueous	10/20/05 12:00	EPA 200.7 Fe Pb Ni Ag Tl Sb As Be Cd Cr Cu Zn Se Total EPA 245.1 Hg Total				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C618713	250 mL Plastic	Greenwood	BX18307	HNO3	R-4374E	10-12-05	10-13-05		
C698477	250 mL Plastic	Greenwood	BX18741	HNO3	R-4374E	10-12-05	10-13-05		
C698455	250 mL Plastic	Greenwood	BX18741	HNO3	R-4374E	10-12-05	10-13-05		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-6	RW-2		Aqueous	10/20/05 12:00	Lachat 10-204-00-1-A (EPA 335.3) Total Cyanide				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C698647	500 mL Plastic	Greenwood	BX18747	NaOH	R-4387B	10-12-05	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-7	RW-2		Aqueous	10/20/05 12:00	SM 4500-Cl G SM 2540 D Total Suspended Solids SM 4500-H+B pH				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C618137	1 L Amber Glass	Proline	BX18262	None	n/a	n/a	n/a		
C618136	1 L Amber Glass	Proline	BX18262	None	n/a	n/a	n/a		

Lab ID	Field ID		Matrix	Sampled	Method				Notes
88535-8	RW-2		Aqueous	10/20/05 12:00	SM 3500-Cr D Hexavalent Chromium				
Con ID	**Container**	**Vendor**	**QC Lot**	**Preserv**	**QC Lot**	**Prep**	**Ship**		
C638362	250 mL Plastic	Greenwood	BX18133	None	n/a	n/a	n/a		

GROUNDWATER ANALYTICAL

EPA Method 8260B
Volatile Organics by GC/MS

Field ID:	RW-2	Matrix:	Aqueous
Project:	Shaw's Plaza/A6525A	Container:	40 mL VOA Vial
Client:	Resource Control Associates	Preservation:	HCl/Cool
Laboratory ID:	88535-01	QC Batch ID:	VM7-1911-W
Sampled:	10-20-05 12:00	Instrument ID:	MS-7 Agilent 6890
Received:	10-20-05 18:45	Sample Volume:	25 mL
Analyzed:	10-21-05 23:04	Dilution Factor:	1
Analyst:	EMC		

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)	6		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	12		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:	RW-2	Matrix:	Aqueous
Project:	Shaw's Plaza/A6525A	Container:	40 mL VOA Vial
Client:	Resource Control Associates	Preservation:	HCl/Cool
Laboratory ID:	88535-01	QC Batch ID:	VM7-1911-W
Sampled:	10-20-05 12:00	Instrument ID:	MS-7 Agilent 6890
Received:	10-20-05 18:45	Sample Volume:	25 mL
Analyzed:	10-21-05 23:04	Dilution Factor:	1
Analyst:	EMC		

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	BRL		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	BRL		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	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		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	11	112 %	70 - 130 %
1,2-Dichloroethane-d_4	10	12	123 %	70 - 130 %
Toluene-d_8	10	9.8	98 %	70 - 130 %
4-Bromofluorobenzene	10	10	103 %	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 8270C
Semivolatile Organics by GC/MS

Field ID:	RW-2	Matrix:	Aqueous
Project:	Shaw's Plaza/A6525A	Container:	1 L Amber Glass
Client:	Resource Control Associates	Preservation:	Cool
Laboratory ID:	88535-02	QC Batch ID:	SV-1771-F
Sampled:	10-20-05 12:00	Instrument ID:	MS-3 HP 5890
Received:	10-20-05 18:45	Sample Volume:	500 mL
Extracted:	11-01-05 15:00	Final Volume:	1 mL
Analyzed:	11-03-05 04:24	Dilution Factor:	1
Analyst:	JJT		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
62-75-9	N-Nitrosodimethylamine	BRL		ug/L	10
110-86-1	Pyridine	BRL		ug/L	10
108-95-2	Phenol	BRL		ug/L	10
62-53-3	Aniline	BRL		ug/L	10
111-44-4	Bis(2-chloroethyl) ether	BRL		ug/L	10
95-57-8	2-Chlorophenol	BRL		ug/L	10
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	10
106-46-7	1,4-Dichlorobenzene	BRL		ug/L	10
100-51-6	Benzyl Alcohol	BRL		ug/L	10
95-50-1	1,2-Dichlorobenzene	BRL		ug/L	10
95-48-7	2-Methylphenol	BRL		ug/L	10
108-60-1	Bis(2-chloroisopropyl) ether	BRL		ug/L	10
108-39-4/106-44-5	3 and 4-Methylphenol *	BRL		ug/L	10
621-64-7	N-Nitrosodi-n-propylamine	BRL		ug/L	10
98-86-2	Acetophenone	BRL		ug/L	10
67-72-1	Hexachloroethane	BRL		ug/L	10
98-95-3	Nitrobenzene	BRL		ug/L	10
78-59-1	Isophorone	BRL		ug/L	10
88-75-5	2-Nitrophenol	BRL		ug/L	10
105-67-9	2,4-Dimethylphenol	BRL		ug/L	10
111-91-1	Bis(2-chloroethoxy) methane	BRL		ug/L	10
120-83-2	2,4-Dichlorophenol	BRL		ug/L	10
120-82-1	1,2,4-Trichlorobenzene	BRL		ug/L	10
91-20-3	Naphthalene	BRL		ug/L	10
106-47-8	4-Chloroaniline	BRL		ug/L	10
87-68-3	Hexachlorobutadiene	BRL		ug/L	10
59-50-7	4-Chloro-3-methylphenol	BRL		ug/L	10
91-57-6	2-Methylnaphthalene	BRL		ug/L	10
77-47-4	Hexachlorocyclopentadiene	BRL		ug/L	10
88-06-2	2,4,6-Trichlorophenol	BRL		ug/L	10
95-95-4	2,4,5-Trichlorophenol	BRL		ug/L	10
91-58-7	2-Chloronaphthalene	BRL		ug/L	10
88-74-4	2-Nitroaniline	BRL		ug/L	10
100-25-4	1,4-Dinitrobenzene	BRL		ug/L	10
131-11-3	Dimethyl phthalate	BRL		ug/L	10
99-65-0	1,3-Dinitrobenzene	BRL		ug/L	10
208-96-8	Acenaphthylene	BRL		ug/L	10
606-20-2	2,6-Dinitrotoluene	BRL		ug/L	10
528-29-0	1,2-Dinitrobenzene	BRL		ug/L	10
99-09-2	3-Nitroaniline	BRL		ug/L	10
83-32-9	Acenaphthene	BRL		ug/L	10
51-28-5	2,4-Dinitrophenol	BRL		ug/L	10
100-02-7	4-Nitrophenol	BRL		ug/L	10
132-64-9	Dibenzofuran	BRL		ug/L	10
121-14-2	2,4-Dinitrotoluene	BRL		ug/L	10

GROUNDWATER ANALYTICAL

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

Field ID:	RW-2	Matrix:	Aqueous
Project:	Shaw's Plaza/A6525A	Container:	1 L Amber Glass
Client:	Resource Control Associates	Preservation:	Cool
Laboratory ID:	88535-02	QC Batch ID:	SV-1771-F
Sampled:	10-20-05 12:00	Instrument ID:	MS-3 HP 5890
Received:	10-20-05 18:45	Sample Volume:	500 mL
Extracted:	11-01-05 15:00	Final Volume:	1 mL
Analyzed:	11-03-05 04:24	Dilution Factor:	1
Analyst:	JJT		

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
84-66-2	Diethyl phthalate	BRL		ug/L	10
7005-72-3	4-Chlorophenyl phenyl ether	BRL		ug/L	10
86-73-7	Fluorene	BRL		ug/L	10
100-01-6	4-Nitroaniline	BRL		ug/L	10
534-52-1	4,6-Dinitro-2-methylphenol	BRL		ug/L	10
86-30-6	N-Nitrosodiphenylamine †	BRL		ug/L	10
122-66-7	1,2-Diphenylhydrazine ◊	BRL		ug/L	10
101-55-3	4-Bromophenyl phenyl ether	BRL		ug/L	10
118-74-1	Hexachlorobenzene	BRL		ug/L	10
87-86-5	Pentachlorophenol	BRL		ug/L	10
85-01-8	Phenanthrene	BRL		ug/L	10
120-12-7	Anthracene	BRL		ug/L	10
86-74-8	Carbazole	BRL		ug/L	10
84-74-2	Di-*n*-butyl phthalate	BRL		ug/L	10
206-44-0	Fluoranthene	BRL		ug/L	10
129-00-0	Pyrene	BRL		ug/L	10
85-68-7	Butyl benzyl phthalate	BRL		ug/L	10
91-94-1	3,3'-Dichlorobenzidine	BRL		ug/L	10
56-55-3	Benzo[a]anthracene	BRL		ug/L	10
218-01-9	Chrysene	BRL		ug/L	10
117-81-7	Bis(2-ethylhexyl) phthalate	BRL		ug/L	10
117-84-0	Di-*n*-octyl phthalate	BRL		ug/L	10
205-99-2	Benzo[b]fluoranthene	BRL		ug/L	10
207-08-9	Benzo[k]fluoranthene	BRL		ug/L	10
50-32-8	Benzo[a]pyrene	BRL		ug/L	10
193-39-5	Indeno[1,2,3-c,d]pyrene	BRL		ug/L	10
53-70-3	Dibenzo[a,h]anthracene	BRL		ug/L	10
191-24-2	Benzo[g,h,i]perylene	BRL		ug/L	10

QC Surrogate Compound	Spiked	Measured	Recovery	QC Limits
2-Fluorophenol	400	230	58 %	15 - 110 %
Phenol-d5	400	180	45 %	15 - 110 %
Nitrobenzene-d5	200	140	72 %	30 - 130 %
2-Fluorobiphenyl	200	150	76 %	30 - 130 %
2,4,6-Tribromophenol	400	350	87 %	15 - 110 %
Terphenyl-d14	200	170	87 %	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.

GROUNDWATER ANALYTICAL

EPA Method 608
Polychlorinated Biphenyls (PCBs) by GC/ECD

Field ID:	RW-2	Matrix:	Aqueous
Project:	Shaw's Plaza/A6525A	Container:	1 L Amber Glass
Client:	Resource Control Associates	Preservation:	Cool
Laboratory ID:	88535-03	QC Batch ID:	PB-1170-F
Sampled:	10-20-05 12:00	Instrument ID:	GC-6 HP 5890
Received:	10-20-05 18:45	Sample Weight:	850 mL
Extracted:	10-26-05 08:00	Final Volume:	1 mL
Cleaned Up:	10-26-05 10:00	Dilution Factor:	1
Analyzed:	10-26-05 13:06		
Analyst:	CRL		

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

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	0.24	0.22	95 %	30 - 150 %
	Decachlorobiphenyl	0.24	0.21	90 %	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	0.24	0.21	90 %	30 - 150 %
	Decachlorobiphenyl	0.24	0.21	88 %	30 - 150 %

Method Reference: Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, US EPA, 40 C.F.R. 136, Appendix A, (1986). 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.

GROUNDWATER ANALYTICAL

Inorganic Chemistry

Field ID: **RW-2** Matrix: **Aqueous**
Project: **Shaw's Plaza/A6525A** Received: **10-20-05 18:45**
Client: **Resource Control Associates**

Lab ID: **88535-04** Sampled: **10-20-05 12:00** 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	1000 mL	10-24-05 09:00	HO-0195-W	EPA 1664	4	DEB

Lab ID: **88535-06** Sampled: **10-20-05 12:00** 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	10-25-05 09:27	TCN-1117-W	Lachat 10-204-00-1-A (EPA 335.2)	1	AVB

Lab ID: **88535-07** Sampled: **10-20-05 12:00** Container: **1 L Amber Glass** Preservation: **Cool**

Analyte	Result	Units	RL	DF	Volume	Analyzed	QC Batch	Method	Inst	Analyst
Solids, Total Suspended	BRL	mg/L	10	1	100 mL	10-24-05 10:35	TSS-1148-W	SM 2540 D	4	MW
Chlorine, Total Residual	BRL	mg/L	0.2	1	5 mL	10-20-05 20:45	TRC-0368-W	SM 4500-Cl G	2	LJD
pH	**6.1**	pH	NA	1	50 mL	10-20-05 20:14	PH-1996-W	SM 4500-H+B	3	LJD

Lab ID: **88535-08** Sampled: **10-20-05 12:00** 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	10-20-05 21:29	HC-0233-W	SM 3500-Cr D	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: Accumet AR50
- 4 Instrument ID: Mettler AT 200 Balance

GROUNDWATER ANALYTICAL

Trace Metals

Field ID:	**RW-2**	Matrix:	**Aqueous**
Project:	**Shaw's Plaza/A6525A**	Container:	**250 mL Plastic**
Client:	**Resource Control Associates**	Preservation:	**HNO3 / Cool**
Laboratory ID:	**88535-05**	Preserved:	**10-20-05 12:00**
Sampled:	**10-20-05 12:00**		
Received:	**10-20-05 18:45**		

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 200.7[1]	MB-1742-W	EPA 200.7	10-21-05 08:06	50 mL	ICP-1 PE 3000	MWR
EPA 245.1[2]	MP-1757-W	EPA 7470A	10-24-05 13:30	25 mL	CVAA-1 PE FIMS	MFP
EPA 200.9[3]	MB-1742-W	EPA 200.9	10-21-05 08:06	50 mL	GFAA-1 PE 5100	MWR

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-36-0	Antimony, Total	BRL		mg/L	0.06	1	10-26-05 15:30	EPA 200.7[1]
7440-38-2	Arsenic, Total	BRL		mg/L	0.01	1	10-26-05 15:30	EPA 200.7[1]
7440-41-7	Beryllium, Total	BRL		mg/L	0.004	1	10-26-05 15:30	EPA 200.7[1]
7440-43-9	Cadmium, Total	BRL		mg/L	0.005	1	10-26-05 15:30	EPA 200.7[1]
7440-47-3	Chromium, Total	BRL		mg/L	0.01	1	10-26-05 15:30	EPA 200.7[1]
7440-50-8	Copper, Total	BRL		mg/L	0.025	1	10-26-05 15:30	EPA 200.7[1]
7439-89-6	Iron, Total	**5.6**		mg/L	0.1	1	10-26-05 15:30	EPA 200.7[1]
7439-92-1	Lead, Total	BRL		mg/L	0.005	1	10-26-05 15:30	EPA 200.7[1]
7439-97-6	Mercury, Total	BRL		mg/L	0.0002	1	10-24-05 16:39	EPA 245.1[2]
7440-02-0	Nickel, Total	BRL		mg/L	0.04	1	10-26-05 15:30	EPA 200.7[1]
7782-49-2	Selenium, Total	BRL		mg/L	0.05	1	10-26-05 15:30	EPA 200.7[1]
7440-22-4	Silver, Total	BRL		mg/L	0.007	1	10-26-05 15:30	EPA 200.7[1]
7440-28-0	Thallium, Total	BRL		mg/L	0.001	1	10-28-05 13:00	EPA 200.9[3]
7440-66-6	Zinc, Total	BRL		mg/L	0.2	1	10-26-05 15:30	EPA 200.7[1]

Method Reference: Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised (1983), and Methods for the Determination of Metals in Environmental Samples, Supplement I, EPA-600/R-94-111, (1994), and 40 C.F.R. 136, Appendix C (1990).

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.

DF Dilution Factor.

GROUNDWATER ANALYTICAL

Project Narrative

Project:	**Shaw's Plaza/A6525A**	Lab ID:	**88535**
Client:	**Resource Control Associates**	Received:	**10-20-05 18:45**

A. Documentation and Client Communication

The following documentation discrepancies, and client changes or amendments were noted for this project:

1. Sample 88535-02 was analyzed by EPA Method 8270 for the full list, per Barrettt Smith, 10-21-05.

2. Sample 88535-04 was analyzed by EPA Method 1664, per Barrett Smith, 10-21-05.

3. Sample 88535-07 was analyzed for Total Residual Chlorine instead of Chloride as indicated on the Chain of Custody, per Barrett Smith, 10-21-05.

B. Method Modifications, Non-Conformances and Observations

The sample(s) in this project were analyzed by the references analytical method(s), and no method modifications, non-conformances or analytical issues were noted, except as indicated below:

1. EPA 8260B Non-conformance: Sample 88535-01 . Laboratory control sample (LCS) analytes Acetone, 4-Methyl-2-Pentanone, 2-Hexanone were above recommended recovery limits for QC batch VM7-1911-W.

2. EPA 8260B Note: Sample 88535-01. Sample was diluted prior to analysis. Dilution was required to keep all target analytes within calibration.

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

GROUNDWATER ANALYTICAL

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CHAIN-OF-CUSTODY RECORD AND WORK ORDER

№ 203726

Project Name: Shaw's Plaza	Firm: Resource Controls
Project Number: [redacted] A6525A	Address: 474 Broadway
Sampler Name: Barrett Smith	City / State / Zip: Pawtucket, RI 02860
Project Manager: Barrett Smith	Telephone: 401-728-6860

INSTRUCTIONS: Use separate line for each container (except replicates).

TURNAROUND

- ☐ STANDARD (10 Business Days)
- ☒ PRIORITY (5 Business Days)
- ☐ RUSH (RAN- _____)
  (Rush requires Rush Authorization Number)
- ☒ Please Email to: [redacted]
- ☐ Please FAX to: _____

BILLING

- ☒ Purchase Order No.: 10602
- ☐ Third Party Billing: _____
- ☐ GWA Quote: _____

ANALYSIS REQUEST

Sampling DATE	Sampling TIME	SAMPLE IDENTIFICATION	Matrix: GROUNDWATER	DRINKING WATER	WASTEWATER	SOIL	OTHER SOLID	OIL/ORGANIC LIQUID	Type: COMPOSITE	GRAB	Container(s) NUMBER	40mL VOA Vial	60mL/2 oz Glass	125mL/4 oz Amber Glass	250mL/8 oz Glass	500mL/16 oz Glass	1L/32 oz Amber Glass	250mL/8 oz Plastic	500mL/16 oz Plastic	1L/32 oz Plastic	120mL Sterile	Preservation: HCl	HNO3	H2SO4	NaOH	Methanol	Sodium Bisulfate	NE	Filtered: YES	NO	LABORATORY NUMBER (Lab Use Only)
10/20/05	12:00	RW-2	X							X	3	X										X					X				
		RW-2	X							X	2						X										X				
		RW-2	X							X	2						X										X				
		RW-2	X							X	2													X			X				
		RW-2	X							X	2							X					X				X				
		RW-2	X							X	1							X				X					X				
		RW-2	X							X	1								X					X			X				
		RW-2	X							X	1							X													
		RW-2	X							X	2						X														

Analysis columns (OPTIONS / SDWA / NPDES / RCRA/21E):
- Volatiles: 1 TIC Search; 1 524.2/MTBE; 1 624; 1 8260B TCL+MTBE; 1 8260B MA PETROLEUM; 1 8021B Aromatics; 1 8021B Halocarbons; 1 601; 1 601/8021-MTBE; 1 8021B; 1 8260B
- Semivolatiles: 1 625 Only; 1 625 Only; 1 TIC Search; 1 525.2; 1 625; 1 625 PAHs only; 1 8270C; 1 8270C PAHs only
- Pest/Herb/PCBs Extractable: 1 505; 1 508; 1 508 Pesticides; 1 508 PCBs; 1 8082 PCBs; 1 8081A Pesticides; 1 8082 PCBs
- Pest/Herb/PCBs Vol.: 1 531.1; 1 515.1; 1 8151A Herbicides; 1 515; 1 8011 EDB/DBCP
- Metals: Specify For Water Sampled: Total; Dissolved; 13 Priority Pollutant; 1 Lead and Copper; 13 RCRA; 15 RCRA; 23 MA List Metals; 1 23 TAL; Specify: Total Iron
- Petroleum Hydrocarbons Ext. TPH: 1 MA DRO; 1 Diesel Range Organics (DRO); 1 ME DRO; 1 CT ETPH; 1 MA DEP EPH w/all targets; 1 EPH Carbon Ranges only; 1 EPH w/o PAHs
- Petroleum Hydrocarbons Vol. TPH: 1 Hydrocarbon Fingerprint (GC/FID) by ASTM D3328-00 Mod.; 1 TPH by GC/FID (8015B Mod) Quantitative Only; 1 Gasoline Range Organics (GRO); 1 ME GRO; 1 MA DEP VPH w/all targets; 1 VPH Carbon ranges only
- Haz. Waste: 1 TCLP; 1 SPLP; 1 8 Metals; 1 Ph only; 1 VOA; 1 Semi VOA; 1 Pesticides; 1 Herbicides; 1 Corrosivity (as pH); 1 Reactivity; 1 Ignitability (as Flashpoint); 1 Paint Filter; 1 MA Basic Disposal Criteria: 8260B, TPH by GC, PCBs, 5 Metals, Corrosivity, Ignitability, Reactivity
- General Chemistry: 1 Nitrate; 1 Nitrite; 1 Chloride; 1 Fluoride; 1 Sulfate; Total Residual Chlorine; 1 Dissolved Phosphorus; 1 Ammonia; 1 TKN; 1 Total Phosphorus; 1 Total N (as NH3/NO3/TKN); 1 Oil & Grease; 1 COD; 1 TOC; 1 BOD; 1 TDS; 1 TSS; 1 TS; 1 Alkalinity; 1 Cyanide, Total; 1 Cyanide, Physologically Available; 1 pH; 1 Dissolved Oxygen; 1 Turbidity
- Other: 1 Total Coliform; 1 Fecal Coliform; 1 HPC; Hexavalent Chromium

Sample Identification	Nitrate	Nitrite	Chloride	Sulfate	Total Residual Chlorine	Alkalinity	Cyanide, Total	pH	Hexavalent Chromium
RW-2	X								
RW-2									
RW-2									
RW-2									
RW-2									
RW-2									
RW-2									
RW-2									
RW-2									

— end —

REMARKS / SPECIAL INSTRUCTIONS

MA DEP MCP Data Enhancement Affirmation

- ☐ YES ☒ NO MCP Data Certification required.
- ☐ YES ☒ NO MCP Drinking Water Sample included.
  (Require collection of contingent duplicate sample. Trip blanks are also required, if VOA sample collected).

Signature: [signature]

DATA QUALITY OBJECTIVES

Regulatory Program

State	Standard	Deliverables
☐ CT	☐ MCP GW-1/S-1	☐ PWS Form
☐ ME	☐ MCP GW-2/S-2	☐ MWRA
☒ MA	☐ NY STARS	☐ _____
☐ NH	☐ Drinking Water	
☐ NY	☒ Wastewater	
☐ RI	☐ Waste Disposal	
☐ VT	☐ Dredge Material	
☐ ___	☐ _____	

Project Specific QC

Many regulatory programs and EPA methods require project specific QC. Project specific QC includes Sample Duplicates, Matrix Spikes, and/or Matrix Spike Duplicates. Laboratory QC is not project specific unless prearranged. Project specific QC samples are charged on a per sample basis. **Each MS, MSD and Sample Duplicate requires an additional sample aliquot.**

Project Specific QC Required	Selection of QC Sample
☐ Sample Duplicate	☐ Please use sample: _____
☐ Matrix Spike	
☐ Matrix Spike Duplicate	

CHAIN-OF-CUSTODY RECORD

NOTE: All samples submitted subject to Standard Terms and Conditions on reverse hereof.

Relinquished by Sampler:	Date / Time	Received by:	Receipt Temperature:
[signature]	10/20/05 4:20	Alan Maddigan	☐ Ice ☐ Refrigerated 2-6° C Recommended 2.0°C
Relinquished by:	**Date / Time**	**Received by:**	**Container Count:**
Alan Maddigan	10/20/05 6:45		16
Relinquished by:	**Date / Time**	**Received by laboratory:**	**Shipping/Airbill Number:**
		[signature]	

Method of Shipment: ☒ GWA Courier ☐ Express Mail ☐ Federal Express ☐ UPS ☐ Hand ☐ _____

Custody Seal Number:

GROUNDWATER ANALYTICAL

Quality Assurance/Quality Control

A. Program Overview

Groundwater Analytical conducts an active Quality Assurance program to ensure the production of high quality, valid data. This program closely follows the guidance provided by *Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans,* US EPA QAMS-005/80 (1980), and *Test Methods for Evaluating Solid Waste,* US EPA, SW-846, Update III (1996).

Quality Control protocols include written Standard Operating Procedures (SOPs) developed for each analytical method. SOPs are derived from US EPA methodologies and other established references. Standards are prepared from commercially obtained reference materials of certified purity, and documented for traceability.

Quality Assessment protocols for most organic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. All samples, standards, blanks, laboratory control samples, matrix spikes and sample duplicates are spiked with internal standards and surrogate compounds. All instrument sequences begin with an initial calibration verification standard and a blank; and excepting GC/MS sequences, all sequences close with a continuing calibration standard. GC/MS systems are tuned to appropriate ion abundance criteria daily, or for each 12 hour operating period, whichever is more frequent.

Quality Assessment protocols for most inorganic analyses include a minimum of one laboratory control sample, one method blank, one matrix spike sample, and one sample duplicate for each sample preparation batch. Standard curves are derived from one reagent blank and four concentration levels. Curve validity is verified by standard recoveries within plus or minus ten percent of the curve.

B. Definitions

Batches are used as the basic unit for Quality Assessment. A Batch is defined as twenty or fewer samples of the same matrix which are prepared together for the same analysis, using the same lots of reagents and the same techniques or manipulations, all within the same continuum of time, up to but not exceeding 24 hours.

Laboratory Control Samples are used to assess the accuracy of the analytical method. A Laboratory Control Sample consists of reagent water or sodium sulfate spiked with a group of target analytes representative of the method analytes. Accuracy is defined as the degree of agreement of the measured value with the true or expected value. Percent Recoveries for the Laboratory Control Samples are calculated to assess accuracy.

Method Blanks are used to assess the level of contamination present in the analytical system. Method Blanks consist of reagent water or an aliquot of sodium sulfate. Method Blanks are taken through all the appropriate steps of an analytical method. Sample data reported is not corrected for blank contamination.

Surrogate Compounds are used to assess the effectiveness of an analytical method in dealing with each sample matrix. Surrogate Compounds are organic compounds which are similar to the target analytes of interest in chemical behavior, but which are not normally found in environmental samples. Percent Recoveries are calculated for each Surrogate Compound.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8270C	Instrument ID:	MS-3 HP 5890	Instrument ID:	MS-3 HP 5890
QC Batch ID:	SV-1771-F	Extracted:	11-01-05 15:00	Extracted:	11-01-05 15:00
Matrix:	Aqueous	Analyzed:	11-03-05 16:26	Analyzed:	11-03-05 17:07
Units:	ug/L	Analyst:	CMM	Analyst:	CMM

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
62-75-9	N-Nitrosodimethylamine	50	28	57 %	50	28	57 %	0 %	40 - 140 %	25%
110-86-1	Pyridine	50	26	51 %	50	26	51 %	0 %	40 - 140 %	25%
108-95-2	Phenol	50	20	40 %	50	21	42 %	5 %	30 - 130 %	25%
62-53-3	Aniline	50	41	81 %	50	41	83 %	2 %	40 - 140 %	25%
111-44-4	Bis(2-chloroethyl) ether	50	35	70 %	50	34	68 %	2 %	40 - 140 %	25%
95-57-8	2-Chlorophenol	50	32	65 %	50	31	63 %	3 %	30 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	50	31	63 %	50	31	62 %	2 %	40 - 140 %	25%
106-46-7	1,4-Dichlorobenzene	50	32	64 %	50	31	61 %	4 %	40 - 140 %	25%
100-51-6	Benzyl Alcohol	50	38	76 %	50	37	75 %	2 %	40 - 140 %	25%
95-50-1	1,2-Dichlorobenzene	50	31	62 %	50	31	61 %	2 %	40 - 140 %	25%
95-48-7	2-Methylphenol	50	34	67 %	50	34	67 %	0 %	30 - 130 %	25%
108-60-1	Bis(2-chloroisopropyl) ether	50	34	69 %	50	34	68 %	2 %	40 - 140 %	25%
106-44-5	4-Methylphenol	50	36	71 %	50	35	70 %	2 %	30 - 130 %	25%
621-64-7	N-Nitrosodi-n-propylamine	50	38	77 %	50	36	73 %	6 %	40 - 140 %	25%
98-86-2	Acetophenone	50	39	77 %	50	37	73 %	6 %	40 - 140 %	25%
67-72-1	Hexachloroethane	50	32	64 %	50	30	61 %	5 %	40 - 140 %	25%
98-95-3	Nitrobenzene	50	37	74 %	50	36	73 %	1 %	40 - 140 %	25%
78-59-1	Isophorone	50	36	73 %	50	35	69 %	5 %	40 - 140 %	25%
88-75-5	2-Nitrophenol	50	34	67 %	50	32	65 %	4 %	30 - 130 %	25%
105-67-9	2,4-Dimethylphenol	50	44	88 %	50	41	82 %	7 %	30 - 130 %	25%
111-91-1	Bis(2-chloroethoxy) methane	50	37	75 %	50	36	72 %	4 %	40 - 140 %	25%
120-83-2	2,4-Dichlorophenol	50	36	73 %	50	36	72 %	2 %	30 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	50	35	69 %	50	33	66 %	4 %	40 - 140 %	25%
91-20-3	Naphthalene	50	34	69 %	50	33	66 %	4 %	40 - 140 %	25%
106-47-8	4-Chloroaniline	50	39	78 %	50	38	76 %	3 %	40 - 140 %	25%
87-68-3	Hexachlorobutadiene	50	30	61 %	50	30	60 %	2 %	40 - 140 %	25%
59-50-7	4-Chloro-3-methylphenol	50	42	85 %	50	39	78 %	8 %	30 - 130 %	25%
91-57-6	2-Methylnaphthalene	50	36	73 %	50	34	68 %	6 %	40 - 140 %	25%
77-47-4	Hexachlorocyclopentadiene	50	34	69 %	50	32	64 %	7 %	40 - 140 %	25%
88-06-2	2,4,6-Trichlorophenol	50	37	74 %	50	34	68 %	9 %	30 - 130 %	25%
95-95-4	2,4,5-Trichlorophenol	50	43	86 %	50	39	78 %	10 %	30 - 130 %	25%
91-58-7	2-Chloronaphthalene	50	39	78 %	50	36	71 %	9 %	40 - 140 %	25%
88-74-4	2-Nitroaniline	50	40	81 %	50	37	74 %	9 %	40 - 140 %	25%
100-25-4	1,4-Dinitrobenzene	50	36	71 %	50	32	64 %	10 %	40 - 140 %	25%
131-11-3	Dimethyl phthalate	50	44	88 %	50	40	79 %	11 %	40 - 140 %	25%
99-65-0	1,3-Dinitrobenzene	50	38	75 %	50	34	69 %	9 %	40 - 140 %	25%
208-96-8	Acenaphthylene	50	40	81 %	50	37	74 %	9 %	40 - 140 %	25%
606-20-2	2,6-Dinitrotoluene	50	43	86 %	50	39	78 %	10 %	40 - 140 %	25%
528-29-0	1,2-Dinitrobenzene	50	42	84 %	50	38	76 %	9 %	40 - 140 %	25%
99-09-2	3-Nitroaniline	50	40	80 %	50	37	74 %	7 %	40 - 140 %	25%
83-32-9	Acenaphthene	50	44	88 %	50	40	80 %	10 %	40 - 140 %	25%
51-28-5	2,4-Dinitrophenol	50	40	81 %	50	38	75 %	7 %	30 - 130 %	25%
100-02-7	4-Nitrophenol	50	24	48 %	50	24	48 %	0 %	30 - 130 %	25%
132-64-9	Dibenzofuran	50	42	83 %	50	38	76 %	10 %	40 - 140 %	25%
121-14-2	2,4-Dinitrotoluene	50	44	87 %	50	40	79 %	10 %	40 - 140 %	25%
84-66-2	Diethyl phthalate	50	45	89 %	50	40	80 %	11 %	40 - 140 %	25%
7005-72-3	4-Chlorophenyl phenyl ether	50	44	88 %	50	39	78 %	11 %	40 - 140 %	25%
86-73-7	Fluorene	50	41	82 %	50	37	74 %	10 %	40 - 140 %	25%

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8270C	Instrument ID:	MS-3 HP 5890	Instrument ID:	MS-3 HP 5890
QC Batch ID:	SV-1771-F	Extracted:	11-01-05 15:00	Extracted:	11-01-05 15:00
Matrix:	Aqueous	Analyzed:	11-03-05 16:26	Analyzed:	11-03-05 17:07
Units:	ug/L	Analyst:	CMM	Analyst:	CMM

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
100-01-6	4-Nitroaniline	50	40	81 %	50	36	73 %	10 %	40 - 140 %	25%
534-52-1	4,6-Dinitro-2-methylphenol	50	41	81 %	50	37	74 %	9 %	30 - 130 %	25%
86-30-6	N-Nitrosodiphenylamine †	50	43	87 %	50	40	80 %	8 %	40 - 140 %	25%
122-66-7	1,2-Diphenylhydrazine à	50	40	80 %	50	37	74 %	8 %	40 - 140 %	25%
101-55-3	4-Bromophenyl phenyl ether	50	47	94 %	50	43	87 %	8 %	40 - 140 %	25%
118-74-1	Hexachlorobenzene	50	41	83 %	50	38	75 %	10 %	40 - 140 %	25%
87-86-5	Pentachlorophenol	50	37	73 %	50	34	69 %	6 %	30 - 130 %	25%
85-01-8	Phenanthrene	50	43	85 %	50	39	78 %	8 %	40 - 140 %	25%
120-12-7	Anthracene	50	44	88 %	50	41	81 %	8 %	40 - 140 %	25%
86-74-8	Carbazole	50	42	83 %	50	40	79 %	5 %	40 - 140 %	25%
84-74-2	Di-*n*-butyl phthalate	50	46	93 %	50	44	88 %	5 %	40 - 140 %	25%
206-44-0	Fluoranthene	50	43	87 %	50	41	83 %	5 %	40 - 140 %	25%
129-00-0	Pyrene	50	43	87 %	50	41	83 %	4 %	40 - 140 %	25%
85-68-7	Butyl benzyl phthalate	50	44	87 %	50	42	84 %	4 %	40 - 140 %	25%
91-94-1	3,3'-Dichlorobenzidine	50	42	85 %	50	42	83 %	2 %	40 - 140 %	25%
56-55-3	Benzo[a]anthracene	50	45	89 %	50	43	86 %	4 %	40 - 140 %	25%
218-01-9	Chrysene	50	44	89 %	50	42	84 %	6 %	40 - 140 %	25%
117-81-7	Bis(2-ethylhexyl) phthalate	50	46	91 %	50	43	85 %	7 %	40 - 140 %	25%
117-84-0	Di-*n*-octyl phthalate	50	47	95 %	50	46	91 %	4 %	40 - 140 %	25%
205-99-2	Benzo[b]fluoranthene	50	45	89 %	50	42	84 %	6 %	40 - 140 %	25%
207-08-9	Benzo[k]fluoranthene	50	45	90 %	50	43	87 %	3 %	40 - 140 %	25%
50-32-8	Benzo[a]pyrene	50	46	91 %	50	43	86 %	5 %	40 - 140 %	25%
193-39-5	Indeno[1,2,3-c,d]pyrene	50	44	89 %	50	41	83 %	7 %	40 - 140 %	25%
53-70-3	Dibenzo[a,h]anthracene	50	39	79 %	50	37	75 %	5 %	40 - 140 %	25%
191-24-2	Benzo[g,h,i]perylene	50	42	85 %	50	40	80 %	5 %	40 - 140 %	25%

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery		QC Limits
2-Fluorophenol	200	99	50 %	200	100	50 %		15 - 110 %
Phenol-d5	200	77	39 %	200	80	40 %		15 - 110 %
Nitrobenzene-d5	100	68	68 %	100	65	65 %		30 - 130 %
2-Fluorobiphenyl	100	75	75 %	100	68	68 %		30 - 130 %
2,4,6-Tribromophenol	200	180	91 %	200	160	81 %		15 - 110 %
Terphenyl-d14	100	84	84 %	100	79	79 %		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: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

† Reported as sum of N-Nitrosodiphenylamine and Diphenylamine.

◊ Analyzed as Azobenzene.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category: EPA Method 8270C
QC Batch ID: SV-1771-F
Matrix: Aqueous

Instrument ID: MS-3 HP 5890
Extracted: 11-01-05 15:00
Analyzed: 11-03-05 17:48
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
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

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

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8270C	Instrument ID:	MS-3 HP 5890
QC Batch ID:	SV-1771-F	Extracted:	11-01-05 15:00
Matrix:	Aqueous	Analyzed:	11-03-05 17:48
		Analyst:	CMM

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
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	100	**50 %**	15 - 110 %
Phenol-d5	200	75	**38 %**	15 - 110 %
Nitrobenzene-d5	100	64	**64 %**	30 - 130 %
2-Fluorobiphenyl	100	67	**67 %**	30 - 130 %
2,4,6-Tribromophenol	200	170	**84 %**	15 - 110 %
Terphenyl-d14	100	84	**84 %**	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.

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8260B	Instrument ID:	MS-7 Agilent 6890	Instrument ID:	MS-7 Agilent 6890
QC Batch ID:	VM7-1911-WL	Analyzed:	10-21-05 17:26	Analyzed:	10-21-05 17:56
Matrix:	Aqueous	Analyst:	EMC	Analyst:	EMC
Units:	ug/L				

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
75-71-8	Dichlorodifluoromethane	10	9.6	96 %	10	10	102 %	6 %	70 - 130 %	25%
74-87-3	Chloromethane	10	10	102 %	10	11	106 %	4 %	70 - 130 %	25%
75-01-4	Vinyl Chloride	10	9.7	97 %	10	10	103 %	6 %	70 - 130 %	25%
74-83-9	Bromomethane	10	9.5	95 %	10	9.5	95 %	1 %	70 - 130 %	25%
75-00-3	Chloroethane	10	10	100 %	10	10	100 %	0 %	70 - 130 %	25%
75-69-4	Trichlorofluoromethane	10	11	109 %	10	11	110 %	1 %	70 - 130 %	25%
60-29-7	Diethyl Ether	20	24	122 %	20	24	118 %	3 %	70 - 130 %	25%
75-35-4	1,1-Dichloroethene	10	9.9	99 %	10	9.4	94 %	5 %	70 - 130 %	25%
76-13-1	1,1,2-Trichlorotrifluoroethane	20	22	111 %	20	22	112 %	0 %	70 - 130 %	25%
67-64-1	Acetone	20	47	234 % q	20	46	230 % q	2 %	70 - 130 %	25%
75-15-0	Carbon Disulfide	20	20	98 %	20	19	97 %	1 %	70 - 130 %	25%
75-09-2	Methylene Chloride	10	11	108 %	10	10	104 %	4 %	70 - 130 %	25%
156-60-5	*trans*-1,2-Dichloroethene	10	9.8	98 %	10	9.5	95 %	3 %	70 - 130 %	25%
1634-04-4	Methyl *tert*-butyl Ether (MTBE)	10	13	128 %	10	13	127 %	1 %	70 - 130 %	25%
75-34-3	1,1-Dichloroethane	10	10	104 %	10	10	104 %	0 %	70 - 130 %	25%
594-20-7	2,2-Dichloropropane	10	11	108 %	10	11	111 %	2 %	70 - 130 %	25%
156-59-2	*cis*-1,2-Dichloroethene	10	9.9	99 %	10	9.9	99 %	1 %	70 - 130 %	25%
78-93-3	2-Butanone (MEK)	20	20	98 %	20	19	93 %	5 %	70 - 130 %	25%
74-97-5	Bromochloromethane	10	10	104 %	10	11	109 %	4 %	70 - 130 %	25%
109-99-9	Tetrahydrofuran (THF)	20	25	125 %	20	25	127 %	1 %	70 - 130 %	25%
67-66-3	Chloroform	10	10	100 %	10	10	102 %	2 %	70 - 130 %	25%
71-55-6	1,1,1-Trichloroethane	10	8	80 %	10	8.3	83 %	3 %	70 - 130 %	25%
56-23-5	Carbon Tetrachloride	10	8.2	82 %	10	8.7	87 %	6 %	70 - 130 %	25%
563-58-6	1,1-Dichloropropene	10	8.5	85 %	10	8.9	89 %	4 %	70 - 130 %	25%
71-43-2	Benzene	10	8.8	88 %	10	9.1	91 %	3 %	70 - 130 %	25%
107-06-2	1,2-Dichloroethane	10	10	102 %	10	9.1	91 %	11 %	70 - 130 %	25%
79-01-6	Trichloroethene	10	8.8	88 %	10	9.2	92 %	4 %	70 - 130 %	25%
78-87-5	1,2-Dichloropropane	10	9.9	99 %	10	10	103 %	3 %	70 - 130 %	25%
74-95-3	Dibromomethane	10	10	103 %	10	10	103 %	0 %	70 - 130 %	25%
75-27-4	Bromodichloromethane	10	9.9	99 %	10	10	103 %	4 %	70 - 130 %	25%
123-91-1	1,4-Dioxane	200	200	100 %	200	220	111 %	10 %	70 - 130 %	25%
10061-01-5	*cis*-1,3-Dichloropropene	10	11	109 %	10	11	110 %	1 %	70 - 130 %	25%
108-10-1	4-Methyl-2-Pentanone (MIBK)	20	26	128 %	20	27	135 % q	5 %	70 - 130 %	25%
108-88-3	Toluene	10	9.3	93 %	10	9.7	97 %	4 %	70 - 130 %	25%
10061-02-6	*trans*-1,3-Dichloropropene	10	10	103 %	10	9.9	99 %	4 %	70 - 130 %	25%
79-00-5	1,1,2-Trichloroethane	10	10	103 %	10	10	104 %	1 %	70 - 130 %	25%
127-18-4	Tetrachloroethene	10	8.2	82 %	10	8.2	82 %	0 %	70 - 130 %	25%
142-28-9	1,3-Dichloropropane	10	11	107 %	10	11	108 %	1 %	70 - 130 %	25%
591-78-6	2-Hexanone	20	28	142 % q	20	29	146 % q	3 %	70 - 130 %	25%
124-48-1	Dibromochloromethane	10	9.4	94 %	10	9.4	94 %	0 %	70 - 130 %	25%
106-93-4	1,2-Dibromoethane (EDB)	10	10	101 %	10	10	101 %	0 %	70 - 130 %	25%
108-90-7	Chlorobenzene	10	8.7	87 %	10	8.8	88 %	1 %	70 - 130 %	25%
630-20-6	1,1,1,2-Tetrachloroethane	10	9.1	91 %	10	9.1	91 %	0 %	70 - 130 %	25%
100-41-4	Ethylbenzene	10	9.3	93 %	10	9.4	94 %	1 %	70 - 130 %	25%
108-38-3/106-42-3	*meta*-Xylene and *para*-Xylene	20	18	88 %	20	18	89 %	1 %	70 - 130 %	25%
95-47-6	*ortho*-Xylene	10	8.9	89 %	10	9	90 %	1 %	70 - 130 %	25%
100-42-5	Styrene	10	9.7	97 %	10	9.7	97 %	1 %	70 - 130 %	25%
75-25-2	Bromoform	10	8.1	81 %	10	8.1	81 %	0 %	70 - 130 %	25%
98-82-8	Isopropylbenzene	10	9.3	93 %	10	9.7	97 %	4 %	70 - 130 %	25%

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

		LCS		LCSD	
Category:	EPA Method 8260B	Instrument ID:	MS-7 Agilent 6890	Instrument ID:	MS-7 Agilent 6890
QC Batch ID:	VM7-1911-WL	Analyzed:	10-21-05 17:26	Analyzed:	10-21-05 17:56
Matrix:	Aqueous	Analyst:	EMC	Analyst:	EMC
Units:	ug/L				

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits	
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	Spike	RPD
108-86-1	Bromobenzene	10	9.8	98 %	10	9.8	98 %	1 %	70 - 130 %	25%
79-34-5	1,1,2,2-Tetrachloroethane	10	11	115 %	10	12	118 %	3 %	70 - 130 %	25%
96-18-4	1,2,3-Trichloropropane	10	11	109 %	10	11	113 %	4 %	70 - 130 %	25%
103-65-1	*n*-Propylbenzene	10	10	101 %	10	10	104 %	3 %	70 - 130 %	25%
95-49-8	2-Chlorotoluene	10	9.6	96 %	10	9.7	97 %	1 %	70 - 130 %	25%
108-67-8	1,3,5-Trimethylbenzene	10	9.7	97 %	10	10	101 %	3 %	70 - 130 %	25%
106-43-4	4-Chlorotoluene	10	9.7	97 %	10	9.7	97 %	1 %	70 - 130 %	25%
98-06-6	*tert*-Butylbenzene	10	9.4	94 %	10	9.7	97 %	3 %	70 - 130 %	25%
95-63-6	1,2,4-Trimethylbenzene	10	10	102 %	10	10	103 %	2 %	70 - 130 %	25%
135-98-8	*sec*-Butylbenzene	10	9.4	94 %	10	9.8	98 %	3 %	70 - 130 %	25%
541-73-1	1,3-Dichlorobenzene	10	9.1	91 %	10	9.3	93 %	2 %	70 - 130 %	25%
99-87-6	4-Isopropyltoluene	10	9.4	94 %	10	9.9	99 %	5 %	70 - 130 %	25%
106-46-7	1,4-Dichlorobenzene	10	9.3	93 %	10	9.4	94 %	1 %	70 - 130 %	25%
95-50-1	1,2-Dichlorobenzene	10	9.3	93 %	10	9.7	97 %	4 %	70 - 130 %	25%
104-51-8	*n*-Butylbenzene	10	9.8	98 %	10	10	102 %	4 %	70 - 130 %	25%
96-12-8	1,2-Dibromo-3-chloropropane	10	12	115 %	10	12	118 %	2 %	70 - 130 %	25%
120-82-1	1,2,4-Trichlorobenzene	10	9.3	93 %	10	9.5	95 %	2 %	70 - 130 %	25%
87-68-3	Hexachlorobutadiene	10	8.2	82 %	10	8.5	85 %	3 %	70 - 130 %	25%
91-20-3	Naphthalene	10	11	110 %	10	11	111 %	2 %	70 - 130 %	25%
87-61-6	1,2,3-Trichlorobenzene	10	9.6	96 %	10	9.9	99 %	2 %	70 - 130 %	25%
75-65-0	*tert*-Butyl Alcohol (TBA)	200	240	122 %	200	240	119 %	2 %	70 - 130 %	25%
108-20-3	Di-isopropyl Ether (DIPE)	10	11	112 %	10	11	111 %	0 %	70 - 130 %	25%
637-92-3	Ethyl *tert*-butyl Ether (ETBE)	10	12	117 %	10	12	118 %	1 %	70 - 130 %	25%
994-05-8	*tert*-Amyl Methyl Ether (TAME)	10	10	104 %	10	11	110 %	6 %	70 - 130 %	25%

QC Surrogate Compound	Spiked	Measured	Recovery	Spiked	Measured	Recovery		QC Limits
Dibromofluoromethane	10	11	111 %	10	11	107 %		70 - 130 %
1,2-Dichloroethane-d_4	10	11	114 %	10	8.7	87 %		70 - 130 %
Toluene-d_8	10	11	108 %	10	11	109 %		70 - 130 %
4-Bromofluorobenzene	10	11	108 %	10	11	105 %		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: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

q Recovery outside recommended limits.

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category: **EPA Method 8260B**
QC Batch ID: **VM7-1911-WB**
Matrix: **Aqueous**

Instrument ID: **MS-7 Agilent 6890**
Analyzed: **10-21-05 19:00**
Analyst: **EMC**

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)	BRL		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
100-42-5	Styrene	BRL		ug/L	0.5
75-25-2	Bromoform	BRL		ug/L	0.5
98-82-8	Isopropylbenzene	BRL		ug/L	0.5

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 8260B	Instrument ID:	MS-7 Agilent 6890
QC Batch ID:	VM7-1911-WB	Analyzed:	10-21-05 19:00
Matrix:	Aqueous	Analyst:	EMC

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
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	BRL		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	BRL		ug/L	0.5
95-63-6	1,2,4-Trimethylbenzene	BRL		ug/L	0.5
135-98-8	*sec*-Butylbenzene	BRL		ug/L	0.5
541-73-1	1,3-Dichlorobenzene	BRL		ug/L	0.5
99-87-6	4-Isopropyltoluene	BRL		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	11	**113 %**	70 - 130 %
1,2-Dichloroethane-d_4	10	13	**126 %**	70 - 130 %
Toluene-d_8	10	11	**106 %**	70 - 130 %
4-Bromofluorobenzene	10	10	**104 %**	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

Quality Control Report
Laboratory Control Sample

Category:	EPA Method 608 PCBs	Instrument ID:	GC-6 HP 5890
QC Batch ID:	PB-1170-F	Extracted:	10-26-05 08:00
Matrix:	Aqueous	Cleaned Up:	10-26-05 10:00
Units:	ug/L	Analyzed:	10-26-05 14:51
		Analyst:	CRL

CAS Number	Analyte	Spiked	Measured		Recovery		QC Limits
			1st Column	2nd Column	1st Column	2nd Column	
12674-11-2	Aroclor 1016	5.0	5.1	5.0	102 %	101 %	40 - 140 %
11096-82-5	Aroclor 1260	5.0	4.8	5.0	97 %	99 %	40 - 140 %

QC Surrogate Compound	Spiked	Measured		Recovery		QC Limits
Tetrachloro-*m*-xylene	0.20	0.19	0.18	93 %	88 %	30 - 150 %
Decachlorobiphenyl	0.20	0.18	0.18	90 %	91 %	30 - 150 %

Method Reference: Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, US EPA, 40 C.F.R. 136, Appendix A, (1986). Sample extraction performed by EPA Method 3510C. Cleanup performed by EPA Method 3660B and EPA Method 3665A.

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category:	EPA Method 608 PCBs	Instrument ID:	GC-6 HP 5890
QC Batch ID:	PB-1170-F	Extracted:	10-26-05 08:00
Matrix:	Aqueous	Cleaned Up:	10-26-05 10:00
		Analyzed:	10-26-05 13:41
		Analyst:	CRL

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit
12674-11-2	Aroclor 1016	BRL		ug/L	0.20
11104-28-2	Aroclor 1221	BRL		ug/L	0.20
11141-16-5	Aroclor 1232	BRL		ug/L	0.20
53469-21-9	Aroclor 1242	BRL		ug/L	0.20
12672-29-6	Aroclor 1248	BRL		ug/L	0.20
11097-69-1	Aroclor 1254	BRL		ug/L	0.20
11096-82-5	Aroclor 1260	BRL		ug/L	0.20

QC Surrogate Compound		Spiked	Measured	Recovery	QC Limits
First Column	Tetrachloro-*m*-xylene	0.20	0.19	**93 %**	30 - 150 %
	Decachlorobiphenyl	0.20	0.17	**84 %**	30 - 150 %
Second Column	Tetrachloro-*m*-xylene	0.20	0.18	**88 %**	30 - 150 %
	Decachlorobiphenyl	0.20	0.18	**91 %**	30 - 150 %

Method Reference: Methods for Organic Chemical Analysis of Municipal and Industrial Wastewater, US EPA, 40 C.F.R. 136, Appendix A, (1986). 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.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

Category: **Inorganics**
Matrix: **Aqueous**
Units: **mg/L**

Sample Type	Method	QC Batch ID	Prep Method	Prepared	Analyzed	Instrument ID	Analyst
LCS	EPA 7196A	CR-0233-W	EPA 7196A	10/20/2005 21:00	10/20/2005 21:26	Lachat 8000 Autoanalyzer	DDW
LCSD	EPA 7196A	CR-0233-W	EPA 7196A	10/20/2005 21:00	10/20/2005 21:27	Lachat 8000 Autoanalyzer	DDW

Analyte	LCS			LCS Duplicate				QC Limits		Method
	Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	LCS	RPD	
Chromium, Hexavalent	0.10	0.10	103%	0.10	0.10	103%	0 %	80-120%	30 %	EPA 7196A

Method Reference: Test Methods for Evaluating Solid Waste, US EPA, SW-846, Third Edition, Update III (1996). Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised (1983), and Methods for the Determination of Metals in Environmental Samples, Supplement I, EPA-600/R-94-111, (1994), and 40 C.F.R. 136, Appendix C (1990).

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Sample

Category: **Inorganic Chemistry**
Matrix: **Aqueous**

Analyte	Units	Spiked	Measured	Recovery	QC Limits	Analyzed	QC Batch	Method	Inst	Analyst
Solids, Total Suspended	mg/L	93	98	**105 %**	80 - 120 %	10-24-05 10:35	TSS-1148-W	SM 2540 D	4	MW
Chlorine, Total Residual	mg/L	1.0	0.91	**91 %**	80 - 120 %	10-20-05 20:45	TRC-0368-W	SM 4500-Cl G	2	LJD
pH	pH	7.0	7.0	**100 %**	80 - 120 %	10-20-05 20:03	PH-1996-W	SM 4500-H+ B	3	EB
Oil and Grease, Total	mg/L	40	40	**100 %**	78 - 114 %	10-24-05 09:00	HO-0195-W	EPA 1664	4	DEB
Cyanide, Total	mg/L	0.45	0.49	**108 %**	80 - 120 %	10-25-05 09:19	TCN-1117-W	Lachat 10-204-00-1-A (EPA 335.3)	1	AVB

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: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

1 Instrument ID: Lachat 8000 Autoanalyzer
2 Instrument ID: Milton Roy Spectronic 401
3 Instrument ID: Accumet AR50
4 Instrument ID: Mettler AT 200 Balance

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

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category: **Inorganic Chemistry**
Matrix: **Aqueous**

Analyte	Result	Units	RL	Analyzed	QC Batch	Method	Inst	Analyst
Solids, Total Suspended	BRL	mg/L	10	10-24-05 10:35	TSS-1148-W	SM 2540 D	3	MW
Chlorine, Total Residual	BRL	mg/L	0.2	10-20-05 20:45	TRC-0368-W	SM 4500-Cl G	2	LJD
Chromium, Hexavalent	BRL	mg/L	0.01	10-20-05 21:27	HC-0233-W	SM 3500-Cr D	1	DDW
Oil and Grease, Total	BRL	mg/L	5	10-24-05 09:00	HO-0195-W	EPA 1664	3	DEB
Cyanide, Total	BRL	mg/L	0.01	10-25-05 09:19	TCN-1117-W	Lachat 10-204-00-1-A (EPA 335.3)	1	AVB

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.

1 Instrument ID: Lachat 8000 Autoanalyzer

2 Instrument ID: Milton Roy Spectronic 401

3 Instrument ID: Mettler AT 200 Balance

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

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Samples

Category: **Metals**
Matrix: **Aqueous**
Units: **mg/L**

Sample Type	Method	QC Batch ID	Prep Method	Prepared	Analyzed	Instrument ID	Analyst
LCS	EPA 6010B	MB-1742-WL	EPA 3010A	10-21-05 08:06	10-26-05 15:24	ICP-1 PE 3000	DRW
LCS	EPA 7470A	MP-1757-WL	EPA 7470A	10-24-05 13:30	10-24-05 16:30	CVAA-1 PE FIMS	MFP
LCSD	EPA 6010B	MB-1742-WL	EPA 3010A	10-21-05 08:06	10-26-05 15:27	ICP-1 PE 3000	DRW
LCSD	EPA 7470A	MP-1757-WL	EPA 7470A	10-24-05 13:30	10-24-05 16:33	CVAA-1 PE FIMS	MFP

CAS Number	Analyte	LCS			LCS Duplicate				QC Limits		Method
		Spiked	Measured	Recovery	Spiked	Measured	Recovery	RPD	LCS	RPD	
7440-36-0	Antimony	5.0	5.0	99%	5.0	5.1	102%	1 %	80-120 %	20 %	EPA 6010B
7440-38-2	Arsenic	5.0	5.1	102%	5.0	5.3	106%	2 %	80-120 %	20 %	EPA 6010B
7440-41-7	Beryllium	1.0	1.06	106%	1.0	1.06	106%	0 %	80-120 %	20 %	EPA 6010B
7440-43-9	Cadmium	1.0	1.0	101%	1.0	1.1	105%	2 %	80-120 %	20 %	EPA 6010B
7440-47-3	Chromium	1.0	1.0	100%	1.0	1.1	105%	2 %	80-120 %	20 %	EPA 6010B
7440-50-8	Copper	1.0	0.93	93%	1.0	0.99	99%	3 %	80-120 %	20 %	EPA 6010B
7439-92-1	Lead	5.0	4.9	98%	5.0	5.1	102%	2 %	80-120 %	20 %	EPA 6010B
7439-97-6	Mercury	0.0010	0.0010	102%	0.0010	0.0010	101%	0 %	80-120 %	20 %	EPA 7470A
7440-02-0	Nickel	1.0	1.0	100%	1.0	1.0	103%	1 %	80-120 %	20 %	EPA 6010B
7782-49-2	Selenium	5.0	5.0	100%	5.0	5.2	103%	1 %	80-120 %	20 %	EPA 6010B
7440-22-4	Silver	1.0	1.0	101%	1.0	1.1	106%	2 %	80-120 %	20 %	EPA 6010B
7440-28-0	Thallium	5.0	4.8	96%	5.0	4.9	98%	1 %	80-120 %	20 %	EPA 6010B
7440-66-6	Zinc	1.0	1.0	100%	1.0	1.1	106%	3 %	80-120 %	20 %	EPA 6010B

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

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category: **Metals**
Matrix: **Aqueous**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 6010B	MB-1742-WB	EPA 3010A	10-21-05 08:06	50 mL	ICP-1 PE 3000	DRW
EPA 7470A	MP-1757-WB	EPA 7470A	10-24-05 13:30	25 mL	CVAA-1 PE FIMS	MFP

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-36-0	Antimony	BRL		mg/L	0.06	1	10-26-05 15:21	EPA 6010B
7440-38-2	Arsenic	BRL		mg/L	0.01	1	10-26-05 15:21	EPA 6010B
7440-41-7	Beryllium	BRL		mg/L	0.004	1	10-26-05 15:21	EPA 6010B
7440-43-9	Cadmium	BRL		mg/L	0.005	1	10-26-05 15:21	EPA 6010B
7440-47-3	Chromium	BRL		mg/L	0.01	1	10-26-05 15:21	EPA 6010B
7440-50-8	Copper	BRL		mg/L	0.025	1	10-26-05 15:21	EPA 6010B
7439-92-1	Lead	BRL		mg/L	0.005	1	10-26-05 15:21	EPA 6010B
7439-97-6	Mercury	BRL		mg/L	0.0002	1	10-24-05 16:30	EPA 7470A
7440-02-0	Nickel	BRL		mg/L	0.04	1	10-26-05 15:21	EPA 6010B
7782-49-2	Selenium	BRL		mg/L	0.05	1	10-26-05 15:21	EPA 6010B
7440-22-4	Silver	BRL		mg/L	0.007	1	10-26-05 15:21	EPA 6010B
7440-28-0	Thallium	BRL		mg/L	0.02	1	10-26-05 15:21	EPA 6010B
7440-66-6	Zinc	BRL		mg/L	0.2	1	10-26-05 15:21	EPA 6010B

Method Reference: 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.
DF Dilution Factor.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Laboratory Control Sample

Category: **Metals**
Matrix: **Aqueous**
Units: **mg/L**

Analysis Method	QC Batch ID	Prep Method	Prepared	Instrument ID	Analyst
EPA 200.7	MB-1742-WL	EPA 200.7	10-21-05 08:06	ICP-1 PE 3000	DRW
EPA 245.1	MP-1757-WL	EPA 245.1	10-24-05 13:30	CVAA-1 PE FIMS	MFP
EPA 200.9	MB-1742-WL	EPA 200.9	10-21-05 08:06	GFAA-1 PE 5100 Zeeman	DRW

CAS Number	Analyte	Spiked	Measured	Recovery	QC Limits	Analyzed	Method
7440-36-0	Antimony	5.0	5.0	**99 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-38-2	Arsenic	5.0	5.1	**102 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-41-7	Beryllium	1.0	1.06	**106 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-43-9	Cadmium	1.0	1.0	**101 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-47-3	Chromium	1.0	1.0	**100 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-50-8	Copper	1.0	0.9	**93 %**	85-115 %	10-26-05 15:24	EPA 200.7
7439-89-6	Iron	5.0	4.9	**99 %**	85-115 %	10-26-05 15:24	EPA 200.7
7439-92-1	Lead	5.0	4.9	**98 %**	85-115 %	10-26-05 15:24	EPA 200.7
7439-97-6	Mercury	0.0010	0.0010	**102 %**	85-115 %	10-24-05 16:30	EPA 245.1
7440-02-0	Nickel	1.0	1.0	**100 %**	85-115 %	10-26-05 15:24	EPA 200.7
7782-49-2	Selenium	5.0	5.0	**100 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-22-4	Silver	1.0	1.0	**101 %**	85-115 %	10-26-05 15:24	EPA 200.7
7440-28-0	Thallium	0.050	0.049	**99 %**	85-115 %	10-28-05 12:55	EPA 200.9
7440-66-6	Zinc	1.0	1.0	**100 %**	85-115 %	10-26-05 15:24	EPA 200.7

Method Reference: Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised (1983), and Methods for the Determination of Metals in Environmental Samples, Supplement I, EPA-600/R-94-111, (1994), and 40 C.F.R. 136, Appendix C (1990).

Report Notations: All calculations performed prior to rounding. Quality Control Limits are defined by the methodology, or alternatively based upon the historical average recovery plus or minus three standard deviation units.

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

GROUNDWATER ANALYTICAL

Quality Control Report
Method Blank

Category: **Metals**
Matrix: **Aqueous**

Analysis Method	QC Batch ID	Prep Method	Prepared	Sample Volume	Instrument ID	Analyst
EPA 200.7	MB-1742-WB	EPA 200.7	10-21-05 08:06	50 mL	ICP-1 PE 3000	DRW
EPA 245.1	MP-1757-WB	EPA 245.1	10-24-05 13:30	25 mL	CVAA-1 PE FIMS	MFP
EPA 200.9	MB-1742-WB	EPA 200.9	10-21-05 08:06	50 mL	GFAA-1 PE 5100 Zeeman	DRW

CAS Number	Analyte	Concentration	Notes	Units	Reporting Limit	DF	Analyzed	Method
7440-36-0	Antimony	BRL		mg/L	0.06	1	10-26-05 15:21	EPA 200.7
7440-38-2	Arsenic	BRL		mg/L	0.01	1	10-26-05 15:21	EPA 200.7
7440-41-7	Beryllium	BRL		mg/L	0.004	1	10-26-05 15:21	EPA 200.7
7440-43-9	Cadmium	BRL		mg/L	0.005	1	10-26-05 15:21	EPA 200.7
7440-47-3	Chromium	BRL		mg/L	0.01	1	10-26-05 15:21	EPA 200.7
7440-50-8	Copper	BRL		mg/L	0.025	1	10-26-05 15:21	EPA 200.7
7439-89-6	Iron	BRL		mg/L	0.1	1	10-26-05 15:21	EPA 200.7
7439-92-1	Lead	BRL		mg/L	0.005	1	10-26-05 15:21	EPA 200.7
7439-97-6	Mercury	BRL		mg/L	0.0002	1	10-24-05 16:30	EPA 245.1
7440-02-0	Nickel	BRL		mg/L	0.04	1	10-26-05 15:21	EPA 200.7
7782-49-2	Selenium	BRL		mg/L	0.05	1	10-26-05 15:21	EPA 200.7
7440-22-4	Silver	BRL		mg/L	0.007	1	10-26-05 15:21	EPA 200.7
7440-28-0	Thallium	BRL		mg/L	0.001	1	10-28-05 12:55	EPA 200.9
7440-66-6	Zinc	BRL		mg/L	0.2	1	10-26-05 15:21	EPA 200.7

Method Reference: Methods for Chemical Analysis of Water and Wastes, EPA-600/4-79-020, Revised (1983), and Methods for the Determination of Metals in Environmental Samples, Supplement I, EPA-600/R-94-111, (1994), and 40 C.F.R. 136, Appendix C (1990).

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.
DF Dilution Factor.

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

GROUNDWATER ANALYTICAL

Certifications and Approvals

Groundwater Analytical maintains environmental laboratory certification in a variety of states. Copies of our current certificates may be obtained from our website:

http://www.groundwateranalytical.com/qualifications.htm

CONNECTICUT, Department of Health Services, PH-0586

Categories: Potable Water, Wastewater, Solid Waste and Soil
http://www.dph.state.ct.us/BRS/Environmental_Lab/OutStateLabList.htm

FLORIDA, Department of Health, Bureau of Laboratories, E87643

Categories: SDWA, CWA, RCRA/CERCLA
http://www.floridadep.org/labs/qa/dohforms.htm

MAINE, Department of Human Services, MA103

Categories: Drinking Water and Wastewater
http://www.state.me.us/dhs/eng/water/Compliance.htm

MASSACHUSETTS, Department of Environmental Protection, M-MA-103

Categories: Potable Water and Non-Potable Water
http://www.state.ma.us/dep/bspt/wes/files/certlabs.pdf

NEW HAMPSHIRE, Department of Environmental Services, 202703

Categories: Drinking Water and Wastewater
http://www.des.state.nh.us/asp/NHELAP/labsview.asp

NEW YORK, Department of Health, 11754

Categories: Potable Water, Non-Potable Water and Solid Waste
http://www.wadsworth.org/labcert/elap/comm.html

PENNSYLVANIA, Department of Environmental Protection, 68-665

Environmental Laboratory Registration (Non-drinking water and Non-wastewater)
http://www.dep.state.pa.us/Labs/Registered/

RHODE ISLAND, Department of Health, 54

Categories: Surface Water, Air, Wastewater, Potable Water, Sewage
http://www.healthri.org/labs/labsCT_MA.htm

U.S. Department of Agriculture, Soil Permit, S-53921

Foreign soil import permit

VERMONT, Department of Environmental Conservation, Water Supply Division

Category: Drinking Water
http://www.vermontdrinkingwater.org/wsops/labtable.PDF

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

ATTACHMENT C

Correspondence

FILE COPY

RESOURCE CONTROLS

The proven solution to your environmental needs.

October 24, 2005

Michael Amaral
Section Chief, Endangered Species Section
US Fish & Wildlife Service
70 Commercial Street, Suite 300
Concord, New Hampshire 03301-5087

Subject: Shaw's Plaza Site
700-800 South Main Street
Sharon, Massachusetts

Dear Mr. Amaral,

On behalf of Sharon Retail Partners, LLC, Resource Control Associates, Inc. (Resource Controls) is seeking coverage under the US Environmental Protection Agency's newly promulgated National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for wastewater discharge the Shaw's Plaza Site located at 700-800 South Main Street in Sharon Massachusetts (the "Site"). As required under Part I.B.5 of the RGP, all applicants must comply with Appendix VII, Section I, regarding consultation with federal services on endangered species issues. The purpose of this letter is to request an informal consultation with the US Fish and Wildlife Service (Fish & Wildlife) under Section 7 of the Endangered Species Act.

The US Environmental Protection Agency (USEPA) is seeking to ensure that wastewater discharges under the RGP do not adversely affect endangered and threatened species, critical habitat, and/or essential fish habitat. As such, Resource Controls requests any available information regarding the presence of endangered or threatened species, critical habitat, and/or essential fish habitat in the proximity of the Site and a determination as to whether the Site discharge and related activities are likely to adversely affect these species and/or habitats

The scope of the project is summarized in the paragraphs below, and a locus map illustrating the location of the Site relative to regional features is enclosed.

Background

Extensive environmental investigations and remedial activities have been conducted at the Site since 1986 under Massachusetts Department of Environmental Protection (MADEP) Release Tracking Number (RTN) 4-000414. Volatile organic compounds (VOC) have been detected in groundwater at concentrations exceeding the applicable Massachusetts Contingency Plan (MCP) Method 1 standards and USEPA Maximum Contaminant Levels (MCLs) for drinking water quality. The primary contaminant of concern is tetrachloroethene (PCE), a common solvent used in dry cleaning and other industrial applications. The source of PCE in groundwater is believed to be a septic leach field formerly located east of the plaza building. Reportedly, wastewater from a dry cleaning facility formerly located in the plaza complex was discharged to the leach field.

474 Broadway
Pawtucket, RI 02860-1377
401 728-6860
Fax 401 727-1849

www.resourcecontrols.com

A municipal water supply well, Sharon Well #5, is located approximately 1,400 feet south of the plaza building. The Site property is located within the mapped drinking water source area (Zone II) for Sharon Well #5. During the period from May 1993 through April 1996, PCE was detected in Sharon Well #5 at concentrations ranging from 0.6 to 3.6 parts per billion (ppb). PCE has not been detected in Sharon Well #5 since April 1996.

In December 1991, three groundwater recovery wells were installed at the Site, and the remaining components of the groundwater extraction and treatment system were installed in April 1992 under a Short Term Measure Work Plan. The system was started in June 1992, and was operated continuously until September 28, 2000, when it was shut down in accordance with the Class C Response Action Outcome (RAO) schedule. The system was restarted on May 14, 2001, and again on August 28, 2003 after PCE was detected in a sentinel monitoring well at concentrations greater than 200 ppb. A concentration of 200 ppb of PCE has been set as an action level to restart the groundwater treatment system.

Operation, Maintenance and Monitoring Program

Resource Controls conducts bi-weekly operation and maintenance (O&M) of the groundwater extraction and treatment system at the Site. Groundwater from two overburden recovery wells is pumped through an air stripper where dissolved VOC are volatilized and released to the atmosphere. The treated groundwater effluent is discharged to a drainage catch basin and ultimately to Billings Brook, a tributary of the Rumford River, located at the western edge of the Site. Historically, the average flow rate from the system has ranged from 30 to 40 gallons per minute. Treatment system samples have been collected on a monthly basis from the influent and effluent of the system pursuant to an updated NPDES Permit Exclusion letter issued by the USEPA on December 4, 2003. Monthly discharge monitoring reports were submitted to the USEPA, the MADEP and the Town of Sharon. Coverage under the RGP will replace the NPDES Permit Exclusion Letter.

The groundwater extraction and treatment system is currently not operational due to failure of the system controller. As such, there is currently no discharge from the system; upon completion of system repairs, Resource Controls anticipates that future discharge will be covered under the RGP.

If you have any questions or require additional information, please contact the undersigned at (401) 728-6860.

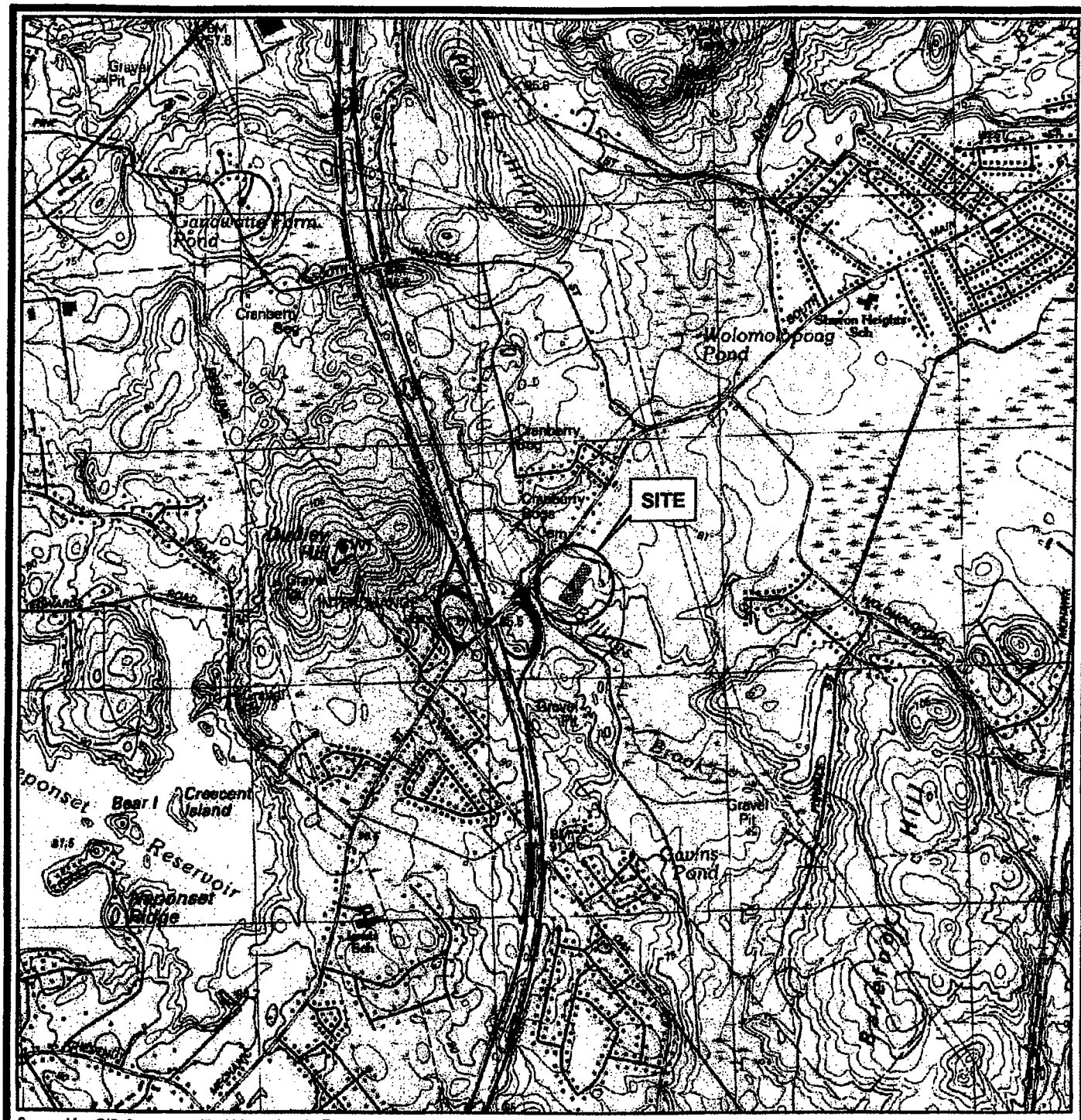
Very truly yours,

RESOURCE CONTROL ASSOCIATES, INC.

Barrett L. Smith
Project Hydrogeologist

Robert H. Bird
Vice President
Principal Hydrogeologist

Enclosures



Source: MassGIS, Commonwealth of Massachusetts Executive Office of Environmental Affairs

0 625 1,250 2,500 Feet

SCALE: 1:24,000

N W E S

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LOCUS MAP

SHAW'S PLAZA SITE
700-800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

PROJECT NO.	FILE NAME	DATE	FIGURE
A6525	A6525LOCUS.PDF	10/22/03	1

FILE COPY

RESOURCE CONTROLS

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October 24, 2005

Mary Colligan
Assistant Regional Administrator – Protected Resources
National Marine Fisheries Service
Northeast Region, Protected Resource Division
One Blackburn Drive
Gloucester, Massachusetts 01930

Subject: Shaw's Plaza Site
700-800 South Main Street
Sharon, Massachusetts

Dear Ms. Colligan,

On behalf of Sharon Retail Partners, LLC, Resource Control Associates, Inc. (Resource Controls) is seeking coverage under the US Environmental Protection Agency's newly promulgated National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for wastewater discharge the Shaw's Plaza Site located at 700-800 South Main Street in Sharon Massachusetts (the "Site"). As required under Part I.B.5 of the RGP, all applicants must comply with Appendix VII, Section I, regarding consultation with federal services on endangered species issues. The purpose of this letter is to request an informal consultation with the National Marine Fisheries Service under Section 7 of the Endangered Species Act.

The US Environmental Protection Agency (USEPA) is seeking to ensure that wastewater discharges under the RGP do not adversely affect endangered and threatened species, critical habitat, and/or essential fish habitat. As such, Resource Controls requests any available information regarding the presence of endangered or threatened species, critical habitat, and/or essential fish habitat in the proximity of the Site and a determination as to whether the Site discharge and related activities are likely to adversely affect these species and/or habitats

The scope of the project is summarized in the paragraphs below, and a locus map illustrating the location of the Site relative to regional features is enclosed.

Background

Extensive environmental investigations and remedial activities have been conducted at the Site since 1986 under Massachusetts Department of Environmental Protection (MADEP) Release Tracking Number (RTN) 4-000414. Volatile organic compounds (VOC) have been detected in groundwater at concentrations exceeding the applicable Massachusetts Contingency Plan (MCP) Method 1 standards and USEPA Maximum Contaminant Levels (MCLs) for drinking water quality. The primary contaminant of concern is tetrachloroethene (PCE), a common solvent used in dry cleaning and other industrial applications. The source of PCE in groundwater is believed to be a septic leach field formerly located east of the plaza building. Reportedly, wastewater from a dry cleaning facility formerly located in the plaza complex was discharged to the leach field.

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A municipal water supply well, Sharon Well #5, is located approximately 1,400 feet south of the plaza building. The Site property is located within the mapped drinking water source area (Zone II) for Sharon Well #5. During the period from May 1993 through April 1996, PCE was detected in Sharon Well #5 at concentrations ranging from 0.6 to 3.6 parts per billion (ppb). PCE has not been detected in Sharon Well #5 since April 1996.

In December 1991, three groundwater recovery wells were installed at the Site, and the remaining components of the groundwater extraction and treatment system were installed in April 1992 under a Short Term Measure Work Plan. The system was started in June 1992, and was operated continuously until September 28, 2000, when it was shut down in accordance with the Class C Response Action Outcome (RAO) schedule. The system was restarted on May 14, 2001, and again on August 28, 2003 after PCE was detected in a sentinel monitoring well at concentrations greater than 200 ppb. A concentration of 200 ppb of PCE has been set as an action level to restart the groundwater treatment system.

Operation, Maintenance and Monitoring Program

Resource Controls conducts bi-weekly operation and maintenance (O&M) of the groundwater extraction and treatment system at the Site. Groundwater from two overburden recovery wells is pumped through an air stripper where dissolved VOC are volatilized and released to the atmosphere. The treated groundwater effluent is discharged to a drainage catch basin and ultimately to Billings Brook, a tributary of the Rumford River, located at the western edge of the Site. Historically, the average flow rate from the system has ranged from 30 to 40 gallons per minute. Treatment system samples have been collected on a monthly basis from the influent and effluent of the system pursuant to an updated NPDES Permit Exclusion letter issued by the USEPA on December 4, 2003. Monthly discharge monitoring reports were submitted to the USEPA, the MADEP and the Town of Sharon. Coverage under the RGP will replace the NPDES Permit Exclusion Letter.

If you have any questions or require additional information, please contact the undersigned at (401) 728-6860.

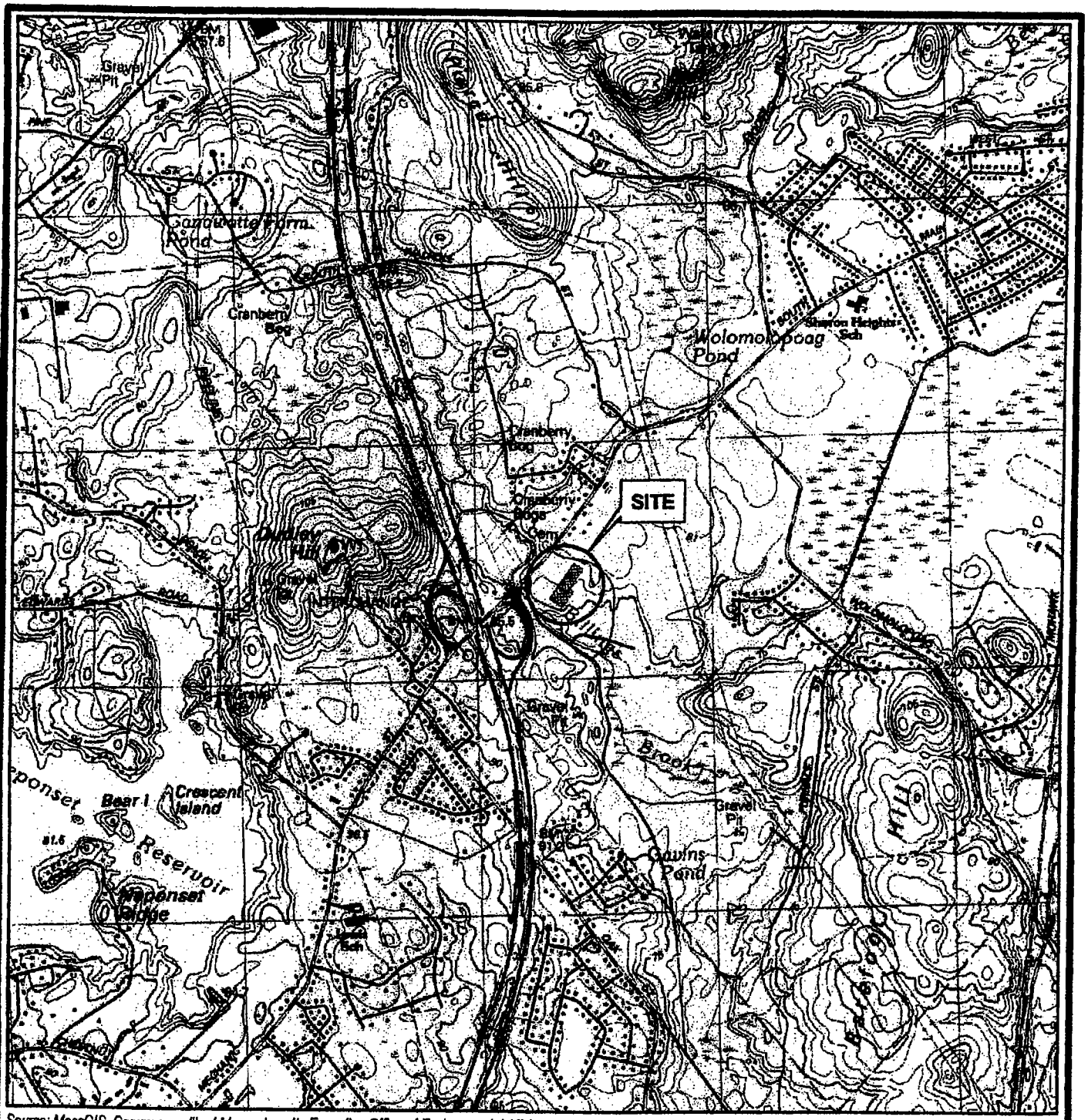
Very truly yours,

RESOURCE CONTROL ASSOCIATES, INC.

Barrett L. Smith
Project Hydrogeologist

Robert H. Bird
Vice President
Principal Hydrogeologist

Enclosures



Source: MassGIS, Commonwealth of Massachusetts Executive Office of Environmental Affairs

0 625 1,250 2,500 Feet

SCALE: 1:24,000

N W E S

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LOCUS MAP

SHAW'S PLAZA SITE
700-800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

PROJECT NO.	FILE NAME	DATE	FIGURE
A6525	A6525LOCUS.PDF	10/22/03	1

FILE COPY

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November 8, 2005

Paul Hogan, NPDES Program Chief
Division of Watershed Management
Massachusetts Department of Environmental Protection
627 Main Street, 2nd Floor
Worcester, Massachusetts 01608

Subject: Shaw's Plaza Site
700-800 South Main Street
Sharon, Massachusetts
RTN 4-0414

Dear Mr. Hogan:

On behalf of Sharon Retail Partners, LLC, Resource Control Associates, Inc. (Resource Controls) is seeking coverage under the US Environmental Protection Agency's newly promulgated National Pollutant Discharge Elimination System (NPDES) Remediation General Permit (RGP) for wastewater discharge the Shaw's Plaza Site located at 700-800 South Main Street in Sharon Massachusetts (the "Site"). Extensive environmental investigations and remedial activities have been conducted at the Site since 1986 under Massachusetts Department of Environmental Protection (MADEP) Release Tracking Number (RTN) 4-000414. Discharge remedial wastewater at the Site was formerly conducted under NPDES permit exclusion letter #MA 03I-142 (Update) issued on December 4, 2003. A locus map illustrating the location of the Site relative to regional features is enclosed.

Pursuant to Part I.B.2 of the RGP, facilities with on-going discharges associated with state-approved remediation projects are eligible for coverage under the RGP. The Notice of Intent (NOI) is being submitted to the US Environmental Protection Agency (USEPA) under a separate cover. Contaminant information and recent laboratory analytical results for all parameters listed in Appendix III of the RGP are included in Section 3 of the NOI. A groundwater sample was collected from recovery well RW-2 on October 20, 2005 as a surrogate for the system influent. Influent sampling was not possible at present because of failure of the system controller.

Based on the recent analytical results, the pH measured in a sample collected from recovery well RW-2 was 6.1 standard pH units (s.u.). This level is below the range acceptable for Class B surface waters in Massachusetts. In accordance with Part I.C.2 of the RGP, Resource Controls requests approval from the MADEP to expand the allowable pH range to 6 to 9 s.u. for this discharge. Upon approval from the MADEP, a Notice of Change will be submitted to the USEPA.

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Fax 401 727-1849

www.resourcecontrols.com

Treatment system information is included in Section 4 of the NOI, and can be summarized as follows: groundwater from two (2) overburden recovery wells is pumped through an air stripper where dissolved-phase volatile organic compounds are volatilized and released to the atmosphere. The treated effluent is discharged through a 4-inch drain line to a catch basin located southeast of the Shaw's Plaza building; the effluent then flows southwest to Billings Brook, a tributary of the Rumford River, located at the western edge of the Site. The pH of the extracted groundwater is not adjusted as part of the treatment process.

Historically, the average flow rate from the system has ranged from 30 to 40 gallons per minute. Treatment system samples have been collected on a monthly basis from the influent and effluent of the system pursuant to the updated NPDES Permit Exclusion letter, and monthly discharge monitoring reports have been submitted to the USEPA, the MADEP and the Town of Sharon.

If you have any questions or require additional information, please contact the undersigned at (401) 728-6860.

Very truly yours,

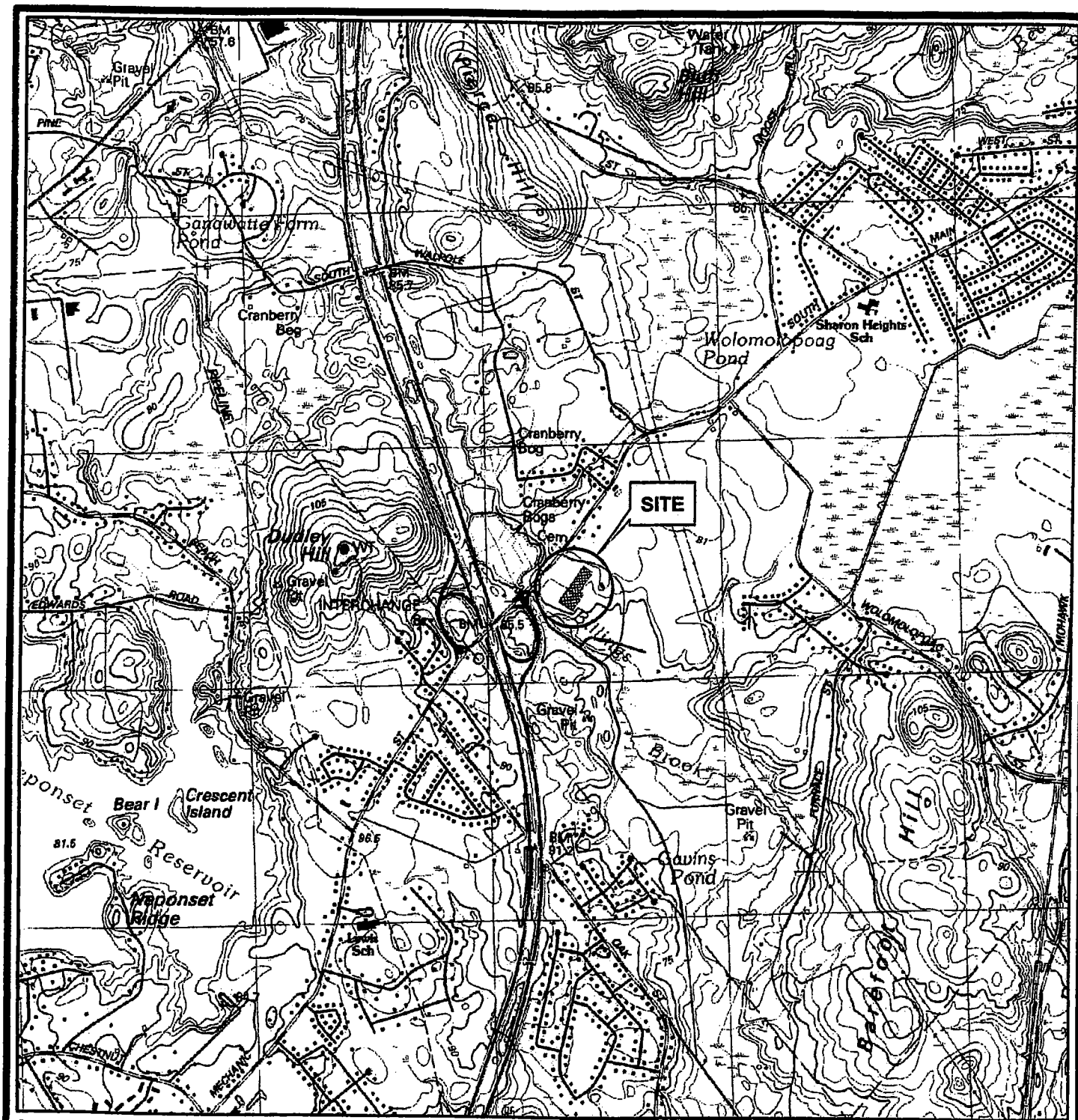
RESOURCE CONTROL ASSOCIATES, INC.

Barrett L. Smith
Project Hydrogeologist

Robert H. Bird
Vice President
Principal Hydrogeologist

Enclosure

BLS:lap



Source: MassGIS, Commonwealth of Massachusetts Executive Office of Environmental Affairs

0 625 1,250 2,500 Feet

SCALE: 1:24,000

N W E S

RESOURCE CONTROLS
474 Broadway • Pawtucket, RI 02860

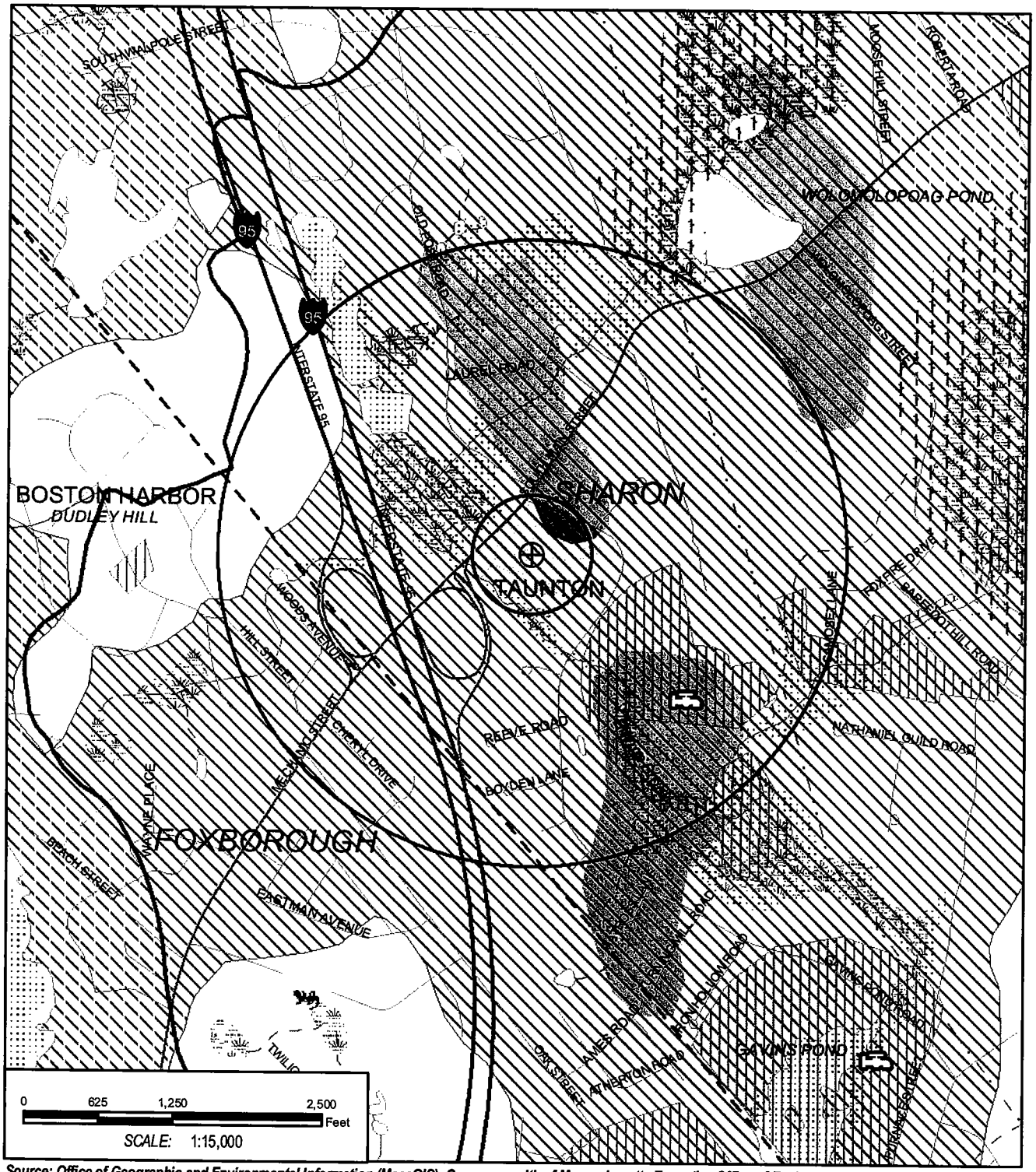
LOCUS MAP

SHAW'S PLAZA SITE
700-800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

PROJECT NO.	FILE NAME	DATE	FIGURE
A6525	A6525LOCUS.PDF	10/22/03	1

ATTACHMENT D

MCP Site Scoring Map



Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs
Note: Black circles represent 500 ft and 1/2 mile radii

RESOURCE CONTROLS
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MCP SITE SCORING MAP

700–800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

DRAWN BY	PROJECT	PRINT DATE	ATTACHMENT
JVF	A6525A	10/28/2005	D1

C:\GIS Projects JV\A6525A\A6525A MCP Site Scoring Map.mxd

DEP MCP 21e Map Legend

- Zone IIs
- IWPAs
- Zone A
- Sole Source Aquifers
- Solid Waste Sites
- Protected Openspace
- ACECs
- NHESP Estimated Habitat of Rare Wildlife in Wetland Areas
- Certified Vernal Pools 2003 NHESP
- Subbasins
- Mass Major Basins
- DEP Region
- Town Arcs
- County Boundaries

Public Water Supplies

- COMMUNITY PUBLIC WATER SUPPLY - GROUNDWATER
- COMMUNITY PUBLIC WATER SUPPLY - SURFACE WATER
- NON COMMUNITY PUBLIC WATER SUPPLY

Aquifers, By Yield

- HIGH YIELD
- MEDIUM YIELD

Non Potential Drinking Water Source Area

- HIGH YIELD
- MEDIUM YIELD

FEMA Floodplains

- 100 YEAR FLOODPLAIN

Hydrography

- WATER
- RESERVOIR
- WETLANDS
- SALTWATER WETLANDS
- FLATS,SHOALS

Rivers and Streams

- PERENNIAL
- INTERMITTENT
- SHORELINE
- MAN MADE SHORE
- DAM
- AQUEDUCT

MHD Roads

- LIMITED ACCESS HIGHWAY
- MULTILANE HWY, NOT LIMITED ACCESS
- OTHER NUMBERED HWY
- MAJOR ROAD - COLLECTOR
- MINOR STREET OR ROAD, RAMP

Tracks and Trails MHD

- TRACK
- TRAIL

Transmission Lines

- PIPELINE
- POWERLINE
- TRAIN

Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs

RESOURCE CONTROLS
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MCP SITE SCORING MAP LEGEND

700–800 SOUTH MAIN STREET
SHARON, MASSACHUSETTS

DRAWN BY	PROJECT	PRINT DATE	ATTACHMENT
JVF	A6525A	10/28/2005	D2

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