



**ELECTRONIC SUBMITTAL (NPDES.GeneralPermits@epa.gov)
AND
OVERNIGHT DELIVERY**

October 24, 2005

US Environmental Protection Agency
RGP-NOI Processing
Municipal Assistance Unit (CMU)
1 Congress Street, Suite 1100
Boston, MA 02114-2023

RE: NPDES REMEDIATION GENERAL PERMIT – NOI Submittal
Shell-Branded Service Station
130 Central Street
Stoughton, Norfolk County, MA

To Whom It May Concern:

On September 9, 2005, the USEPA published the NPDES Remediation General Permit ("RGP") in the Federal Register. It stated the deadline for submittal of Notice of Intent ("NOI") or individual NPDES applications for those facilities currently discharging under USEPA Permit Exclusions was October 10, 2005. On September 19, 2005, NewFields requested, in writing, a 60-day extension to the October 10, 2005 deadline. On October 6, 2005, George Papadopoulos granted an extension until October 24, 2005 via electronic mail. The electronic mail stated that in cases where the permittee was unable to submit all the required information by October 24, 2005, the application should be submitted with as much information as possible and supplemental data provided when it becomes available. Thus NewFields Princeton LLC, on behalf of Motiva Enterprises LLC, is submitting an incomplete NOI application package for the above referenced facility that has not been certified by the operator. Upon receipt of the remaining data as specified below, a complete application package and certification will be forwarded to your office.

Motiva Enterprises LLC is currently operating a Shell-branded gasoline service station at the above referenced facility. Remediation of the facility is conducted under the Massachusetts Contingency Plan ("MCP"), 310 CMR 40.0000. A groundwater remediation system currently operates in accordance with an EPA Permit Exclusion. The discharge is to a stormwater catch basin which discharges to an unnamed wetlands, then a second unnamed wetlands, to Beaver Brook and finally to Brockton Reservoir. Pursuant to 314 CMR 4, Brockton Reservoir is classified as a Class A waterbody.

Prior to discharge under the current EPA Permit Exclusion, an Order of Conditions was obtained from the Town of Stoughton Conservation Commission and permission was granted from Jim Kinney, former MADEP case manager for this facility. Upon review of the files, written confirmation of a variance or exemption pursuant to 314 CMR 4.04 could not be located. Newfields Princeton LLC contacted Kathleen Keohane of the MADEP-Surface Water Permits Program to obtain written verification of a variance or exemption. Once received, it will be forwarded to your office. In addition, in a conversation with Don Maggioli of Envirotrac Ltd., Michael O'Brien stated the NOI should be submitted and the EPA/ MADEP will perform an evaluation.

NEWFIELDS
22 West Street
Red Bank, New Jersey 07701
732.224.7066 tel ~ 732.224.7633 fax
www.newfields.com

Pursuant to the NPDES RGP requirements, samples of the influent to the remediation system were collected and analyzed by State of Massachusetts certified laboratories. The final data packages and associated quality control/quality assurance ("QA/QC") documents received to date are enclosed herein. The results of the Ethylene Dibromide sampling will be forwarded upon receipt.

The results of the influent sampling indicate the presence of metals (i.e. Cadmium, Copper and Lead) above the Appendix III limitations. It should be noted that these metals are naturally occurring in the groundwater, are not associated with the gasoline service station remediation project. A dilution factor could not be calculated using the USGS Stream Stats Program since the discharge is to unnamed wetlands. Thus the dilution range is assumed at this time to be 0-5.

A comparison of the influent metal results, to the proposed NPDES RGP Appendix IV 0-5 dilution range limitations, showed they were above 0.2 ug/l for Cadmium, 5.2 ug/l for Copper and 1.3 ug/l for Lead. Consequently, the permittee is taking hardness samples from the receiving stream, and effluent of the remediation system, in order to calculate site-specific metal limitations. If the site specific metal limitations calculated are higher than the Appendix IV 0-5 dilution range limitations, which were calculated by the EPA using a statewide average hardness of 50 mg/l CaCO₃, the permittee reserves the right to submit an individual NPDES application as specified in the *Response to Comments on the October 2004 Proposed Remediation General Permit* ("*Response to Comments*") document posted on the EPA website.

The NPDES Remediation General Permit and associated *Response to Comments* document, allow the permittee to request revisions to the permit conditions based upon site-specific conditions. The following is a list of the requested revisions for this facility.

TEMPERATURE

In the *Response to Comments* document, the EPA agreed that "temperature limits should only apply if the water treatment contains a heating process that can alter the temperature of the discharge and therefore impact the receiving water body"....Therefore the EPA will review each NOI and determine whether the discharge has the potential to affect the temperature sufficiently enough to require monitoring". Since the existing groundwater treatment system does not, and will not, alter the temperature of the receiving waterbody, we are requesting that the EPA not impose monitoring and sampling requirements for temperature at the above referenced location.

PH

In the *Response to Comments* document, the EPA recognized that "in many cases, the pH will not be altered by the operation of the water treatment system." Thus Part I.C.2. of the RGP allows permittees in Massachusetts to request the pH range be widened to within 6.0 - 9.0 standard units (SU) or another range due to naturally occurring conditions in the receiving water. Similarly, permittees may request such a change if the naturally occurring source water is unaltered by the permittee's operation. The current pH limitation for Class A waters in Massachusetts in 6.5 - 8.3 SU. Since the permittee's operation will not alter the pH, we are requesting the pH range be widened to 6.0 - 9.0 SU for this facility.

EXEMPTION FROM INITIAL START-UP SAMPLING REQUIREMENTS

In the *Response to Comments* document, the EPA agreed that "treatment systems operating under the EPA Permit Exclusion that have been discharging for several years, unless the system has been down for 45 days or more as of the date that the final RGP becomes effective, can be exempted from the initial start-up sampling requirements." Since the referenced remediation system has been discharging under an EPA Permit Exclusion, and has not been down for greater than 45 days as of the date the RGP became effective (September 9, 2005), we are requesting exemption from the initial start-up sampling requirements listed in the RGP.

COMPLIANCE PERIOD

In the *Response to Comments* document, the EPA stated they "will make every effort to provide existing dischargers with sufficient transition time to make any necessary changes to the treatment system in order to comply with the RGP." Based on the influent sampling results enclosed herein, the EPA may impose sampling for parameters not previously required (e.g. Zinc), or lower limitations on parameters currently required. In order to avoid ceasing operation of the groundwater remediation system due to the risk of Notice of Violations (NOVs) and monetary penalties, the EPA should permit a compliance period of 30 months. During this compliance period the EPA should waive the limitations on those parameters not previously required and maintain the existing limit on those parameters currently required to be sampled on a monthly basis under the EPA Permit Exclusion for a period of 30 months from the effective date of the permit. Regulation 40 CFR Part 122.47 allows a maximum compliance period of three years.

A compliance period of 30 months is requested for the following reasons:

- The permittee needs to collect additional influent, midpoint and effluent data from the existing remediation system over a period of 12 months in order to determine if a system modification is warranted; one year is needed to account for the temperature changes and groundwater table fluctuations.
- If the sampling results indicate a system modification is warranted, an additional 18 months is needed in order for the following activities to be performed: redesign of the treatment system by a professional engineer, research of various treatment options, obtain local permits, obtain access agreements, obtain capital dollars for equipment purchase, purchase equipment, install equipment, power drop modifications, existing treatment shed expansions and pilot testing the new treatment equipment.

APPROVAL OF ALTERNATE METHODOLOGIES

HEXAVALENT CHROMIUM

In the *Response to Comments* document, the EPA agreed that "Method 7196A is a possible substitute" for the hexavalent chromium methods 218.6 and 1636. To use this method, permittees were instructed to request it individually as an alternative test procedure. The permittee was unable to locate any labs able to run hexavalent chromium by method 218.6 or 1636 since they are considered outdated methods. Method 7196A is currently utilized. The required ML of 10 ug/l is achievable by this method. Thus we are requesting the EPA approve method 7196A for hexavalent chromium for this facility.

TOTAL CYANIDE

Appendix VI of the NPDES RGP specifies the test method for Total Cyanide is 335.4. This method has not been approved for use to date, therefore method 335.3 was utilized.

APPROVAL OF ALTERNATE MLs

TOTAL ZINC

The ML listed for Total Zinc using an ICP test method is 10 ug/l. A survey of laboratories showed that the lowest ML obtainable was 20 ug/l. Thus we are requesting the USEPA accept this alternate ML. The laboratory QA/QC data deliverable package has been enclosed for your convenience.

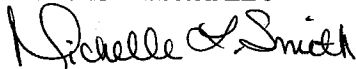
TOTAL COPPER

The ML listed for Total Copper using an ICP test method is 5 ug/l. A survey of laboratories showed that the lowest ML obtainable was 20-25 ug/l. Thus we are requesting the USEPA accept this alternate ML. The laboratory QA/QC data deliverable package has been enclosed for your convenience.

US Environmental Protection Agency
RGP-NOI Processing
Shell-Branded Service Station, 130 Central Street, Stoughton, MA
October 24, 2005
Page 4 of 4

If you have any questions, or require any additional information, I may be contacted at (732) 224-7066 extension 17.

Respectfully,
NewFields Princeton LLC


Michelle L. Smith
Project Scientist

Enclosures: Notice of Intent Form
 Figures
 Dilution Factor Calculations
 Natural Heritage & Endangered Species Program – MA Div of Fisheries & Wildlife – Rare
 Species by Town
 Approved Massachusetts Year 2002 Integrated List of Waters, September 2003 (303(d) list)
 Laboratory Analytical-System Influent

C: Massachusetts Department of Environmental Protection
 Division of Watershed Management
 627 Main Street, 2nd Floor
 Worcester, MA 01608
 (w/ enclosures)

Town of Stoughton Municipal Offices
10 Pearl Street
Stoughton, MA 02072
(w/ enclosures)

David Weeks, Shell OPUS
(w/ enclosures) via electronic mail

Eric Simpson, Envirotrac Ltd.
(w/ enclosures) via electronic mail

NewFields File
(w/ enclosures)

NOI FORM

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 : Shell-Branded Service Station		Facility/site address:	
Location of facility/site : longitude: 71°04' 17" latitude: 42° 07' 32"	Facility SIC code (s): 5541	Street: 130 Central Street	
b) Name of facility/site owner : Motiva Enterprises LLC		Town: Stoughton	
Email address of owner: David.Weeks@Shell.com		State: MA	Zip: 02702
Telephone no. of facility/site owner : 845-462-5225		County: Norfolk	
Fax no. of facility/site owner : 845-462-4999		Owner is (check one) 1. Federal ☐ 2. State/Tribal ☐ 3. Private ☐ 4. other, ☒ if so, describe: Corporation	
Address of owner (if different from site):			
Street: 1830 South Road, Unit 24, PMB 301			
Town: Wappingers Falls	State: NY	Zip: 12590	County: Dutchess
c.) Legal name of operator : Motiva Enterprises LLC	Operator telephone no.: 845-462-5225		
	Operator fax no.: 845-462-4999		Operator email: David.Weeks@Shell.com
Operator contact name and title: David Weeks, Senior Environmental Engineer			
Address of operator (if different from owner): Same as owner	Street: Same as owner		
Town: Same as owner	State: Same as owner	Zip: Same as owner	County: Same as owner
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: Permit number not listed, effective 9-09-02			
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes ☐ No ☒ , if "yes," date and tracking #:			
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Yes ☐ No ☒			
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes ☒ No ☐			

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage: Groundwater remediation project at retail gasoline service station		
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, W/s)? Max. flow <u>0.0891 ft³/sec</u> Average flow <u>0.0668 ft³/sec</u> Is maximum flow a design value? Yes ☐ No ☒. For average flow, include the units and appropriate notation if this value is a design value or estimate if not available. Average flow 0.0668 ft³/sec (based on historical operations)
3) Latitude and longitude of each discharge within 100 feet: pt.1 :long. <u>71°04' 43"</u> lat. <u>42° 07' 36"</u> ; pt.2: long. ____ lat. ____ ; pt.3: long. ____ lat. ____ ; pt.4:long. ____ lat. ____ ; pt.5: long. ____ lat. ____ ; pt.6:long. ____ lat. ____ ; pt.7: long. ____ lat. ____ ; pt.8:long. ____ lat. ____ ; etc.		

4) If hydrostatic testing, total volume of the discharge (gals): N/A	5) Is the discharge intermittent ☒ Or seasonal ☐ ? Is discharge ongoing Yes ☒ No ☐,?
c) Expected dates of discharge (mm/dd/yy): start <u>06/27/03</u> end <u>unknown</u>	
d) Please attach a line drawing or flow schematic showing water flow through the facility including: <u>See attached.</u> 1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).	

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

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

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

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

PARAMETER	Believe Absent	Believe Present	#of Samples (1 min- imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
1. Total Suspended Solids	√		1	GRAB	160.2	1000	<1000	<0.2729		
2. Total Residual Chlorine	√		1	GRAB	330.5	20	<20	<0.0055		
3. Total Petroleum Hydrocarbons	√		1	GRAB	1664	2000	<2000	<0.5459		
4. Cyanide	√		1	GRAB	335.3	10	<10	<0.0027		
5. Benzene		√	1	GRAB	8260B	0.5	<0.5	<0.0001		
6. Toluene		√	1	GRAB	8260B	1.0	2.7	7.37 E-4		
7. Ethylbenzene		√	1	GRAB	8260B	1.0	2.6	7.10 E-4		
8. (m,p,o) Xylenes		√	1	GRAB	8260B	1.0	9.2	2.51 E-3		
9. Total BTEX ⁴		√	1	GRAB	8260B	-----	14.5	3.96 E-3		

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
10. Ethylene Dibromide (1,2- Dibromo-methane)	√		1	GRAB	504.1					
11. Methyl-tert-Butyl Ether (MtBE)		√	1	GRAB	8260B	1.0	92.6	2.53 E-2		
12. tert-Butyl Alcohol (TBA)	√		1	GRAB	8260B	100	<100	<2.73 E-2		
13. tert-Amyl Methyl Ether (TAME)	√		1	GRAB	8260B	2.0	<2.0	<5.46 E-4		
14. Naphthalene		√	1	GRAB	8270C	0.1	0.86	2.35 E-4		
15. Carbon Tetra-chloride	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
16. 1,4 Dichlorobenzene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
17. 1,2 Dichlorobenzene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
18. 1,3 Dichlorobenzene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
19. 1,1 Dichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
20. 1,2 Dichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
21. 1,1 Dichloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
22. cis-1,2 Dichloro-ethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
23. Dichloromethane (Methylene Chloride)	√		1	GRAB	8260B	2.0	<2.0	<5.46 E-4		
24. Tetrachloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		

PARAMETER	Believe Absent	Believe Present	# of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
25. 1,1,1 Trichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
26. 1,1,2 Trichloroethane	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
27. Trichloroethylene	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
28. Vinyl Chloride	√		1	GRAB	8260B	1.0	<1.0	<2.73 E-4		
29. Acetone	√		1	GRAB	8260B	5.0	<5.0	<1.36 E-3		
30. 1,4 Dioxane	√		1	GRAB	8260B	25	<25	<6.82 E-3		
31. Total Phenols	√		1	GRAB	8270C SIM	See lab data	See lab data (Not Detected)	-----		
32. Pentachlorophenol	√		1	GRAB	8270C SIM	1.0	<1.0	<2.73 E-4		
33. Total Phthalates ⁶ (phthalate esters)	√		1	GRAB	8270C	See lab data	See lab data (Not Detected)	-----		
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	√		1	GRAB	8270C	5.0	<5.0	<1.36 E-3		
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	√		1	GRAB	8270C	See lab data	See lab data (Not Detected)	-----		
a. Benzo(a) Anthracene	√		1	GRAB	8270C	0.050	<0.050	<1.36 E-5		
b. Benzo(a) Pyrene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
c. Benzo(b)Fluoranthene	√		1	GRAB	8270C	0.050	<0.050	<1.36 E-5		
d. Benzo(k) Fluoranthene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
e. Chrysene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		

⁶ The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	#of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
f. Dibenzo(a,h) anthracene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
g. Indeno(1,2,3-cd) Pyrene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
36. Total Group II Polycyclic Aromatic Hydrocarbons (pAR)	√		1	GRAB	8270C	0.10	0.86	2.35 E-4		
h. Acenaphthene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
i. Acenaphthylene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
j. Anthracene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
k. Benzo(ghi) Perylene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
l. Fluoranthene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
m. Fluorene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
n. Naphthalene-		√	1	GRAB	8270C	0.10	0.86	2.35 E-4		
o. Phenanthrene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
p. Pyrene	√		1	GRAB	8270C	0.10	<0.10	<2.73 E-5		
37. Total Polychlorinated Biphenyls (PCBs)	√		1	GRAB	608	0.2 – 0.4	<0.2 - <0.4	<5.46E-5 – <1.09 E-4		
38. Antimony		√	1	GRAB	3113B	2.0	3.0	8.19 E-4		
39. Arsenic	√		1	GRAB	3010A-6010B	5.0	<5.0	<1.36 E-5		
40. Cadmium		√	1	GRAB	3113B	0.5	0.6	1.64 E-4		
41. Chromium III (1)	√		1	GRAB	Calculated	----	See lab data (ND)	----		
42. Chromium VI	√		1	GRAB	7196A	10	<10	<2.73 E-3		

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

PARAMETER	Believe Absent	Believe Present	#of Samples (1 minimum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method (ug/l)	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg) (kg/day)	concentration (ug/l)	mass (kg) (kg/day)
43. Copper		√	1	GRAB	3010A-6010B	20	30	8.19 E-3		
44. Lead		√	1	GRAB	3113B	2	4	1.09 E-3		
45. Mercury	√		1	GRAB	245.1	0.20	<0.02	<5.46 E-5		
46. Nickel		√	1	GRAB	200.7	5	8	2.18 E-3		
47. Selenium	√		1	GRAB	3113B	5	<5	<1.36 E-3		
48. Silver	√		1	GRAB	3113B	0.5	<0.5	<1.36 E-4		
49. Zinc		√	1	GRAB	200.7	20	60	1.64 E-2		
50. Iron		√	1	GRAB	200.7	100	240	6.55 E-2		
Other (describe):	----	----	----	----	----	----	----	----	----	----

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

<i>Step 1:</i> Do any of the metals in the influent have a reasonable potential to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y ☒ N ☐	If yes, which metals? <u>Cd, Cu, Pb</u>
<i>Step 2:</i> For any metals which have reasonable potential to exceed the Appendix III limits, calculate the dilution factor (DF) using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: <u>Cd, Cu, Pb</u> DF: <u>0-5 Range</u>	Look up the limit calculated at the corresponding dilution factor in Appendix IV. Do any of the metals in the influent have the potential to exceed the corresponding effluent limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ☒ N ☐ If "Yes," list which metals: <u>Cd, Cu, Pb</u>

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system: Groundwater is extracted from multiple recovery wells and treated by one equalization tank, two-four bag filters, one low profile air stripper and two granular activated carbon units. See Figure 6.						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank ☐	Air stripper ☒	Oil/water separator ☐	Equalization tanks ☒	Bag filter ☒	GAC filter ☒
	Chlorination ☐	Dechlorination ☐	Other (please describe):			
c) Proposed average and maximum flow rates (gallons per minute) for the discharge and the design flow rate(s) (gallons per minute) of the treatment system: Average flow rate of discharge <u>30 GPM</u> Maximum flow rate of treatment system <u>40 GPM</u> Design flow rate of treatment system <u>50 GPM</u>						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): Not Applicable						

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

a) Identify the discharge pathway:	Direct ☐	Within facility ☐	Storm drain ☒	River/brook ☐	Wetlands ☐	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Discharge to a stormwater catch basin to unnamed wetlands (approx 70 acres, unclassified) to another unnamed wetlands (approx 110 acres, unclassified) to Beaver Brook (unclassified) to Brockton Reservoir (Class A). Taunton River Basin.						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas. <u>See attached.</u>						
d) Provide the state water quality classification of the receiving water <u>Class A (freshwater, see cover letter).</u>						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water _____ cfs Please attach any calculation sheets used to support stream flow and dilution calculations. <u>See attached.</u>						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes ☐ No ☒ If yes, for which pollutant(s)? Is there a TMDL? Yes ☐ No ☒ If yes, for which pollutant(s)?						

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

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

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

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

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

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

7. Supplemental information. :

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

See cover letter.

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

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

Facility/Site Name: Shell-Branded Service Station, 130 Central Street, Stoughton, MA.

Operator signature: _____.

Title: David Weeks, Senior Environmental Engineer.

Date: _____.

FIGURES



NOTES:
 RINGS REPRESENT
 500' AND 1000' RADIUS

WELL SYMBOLS DENOTE WELL
 ON LOT NOT ACTUAL LOCATION

SOURCE:
 PORTIONS OF TOWN OF
 STOUGHTON ASSESSOR'S
 MAPS 71, 72, 83 & 84

LEGEND:

IRRIGATION WELL

PRIVATE WATER
 SUPPLY WELL

28 STREET ADDRESS NUMBER

LIMITS OF DISPOSAL SITE

EnviroTrac
 1400 PROVIDENCE HIGHWAY, SUITE 2100
 NORWOOD, MASSACHUSETTS 02062
 PHONE: (781)789-5005 FAX: (781)789-9345

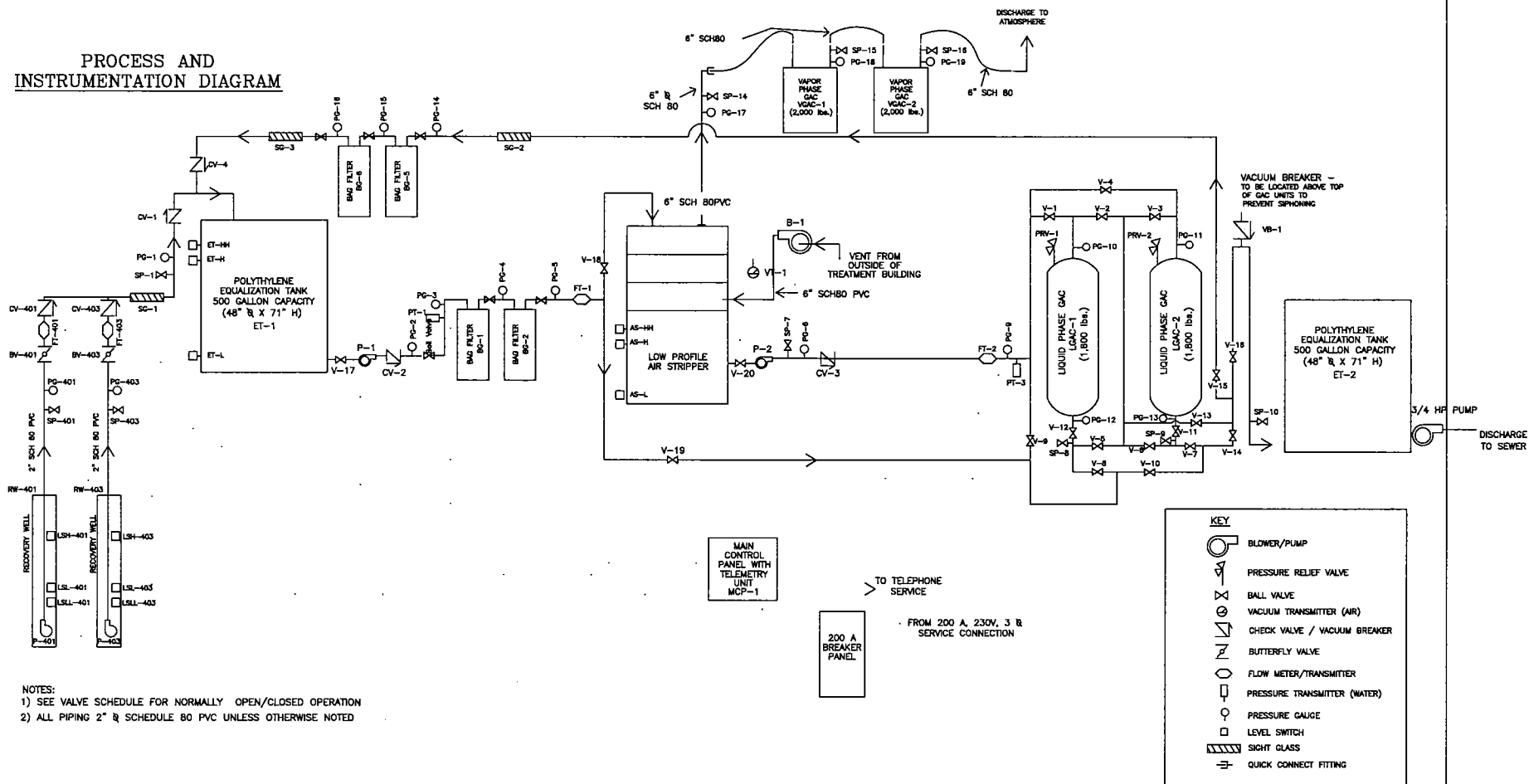
0 125 250
 SCALE IN FEET

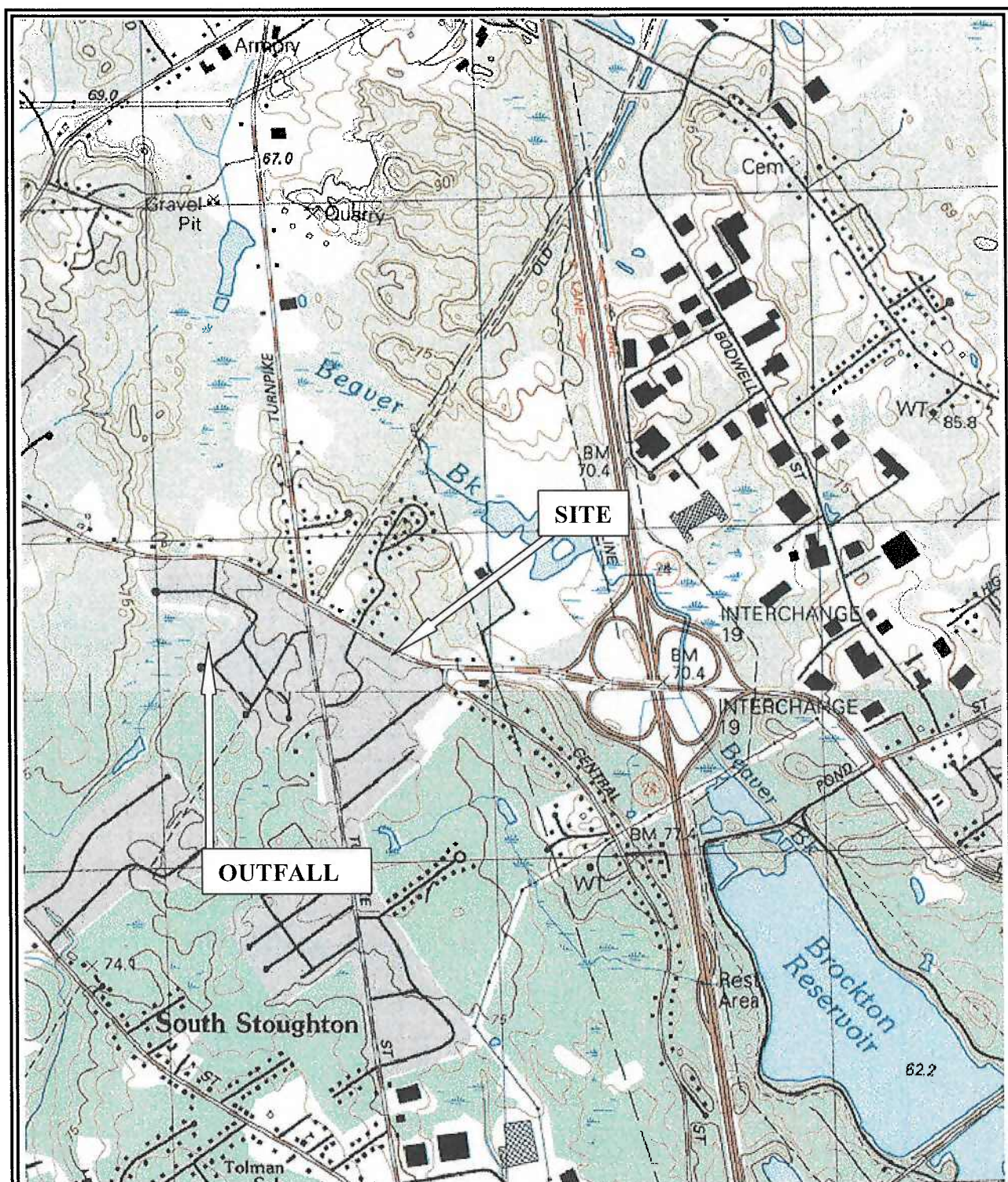
SHELL SERVICE STATION
 130 CENTRAL STREET
 STOUGHTON, MASSACHUSETTS

AREA MAP AND DISPOSAL SITE MAP

FIGURE #
 3

PROCESS AND INSTRUMENTATION DIAGRAM





Printed from TOPOI ©1998 Wildflower Productions (www.topo.com)

Shell Service Station
130 Central Street
Stoughton, Massachusetts

Contour Interval 3 Meters

Long: 71°04'17"
Lat: 42°07'32"



FIGURE 1
SITE LOCUS MAP
UNITED STATES GEOLOGICAL SURVEY
BROCKTON
MASSACHUSETTS
7.5 MINUTE SERIES

EnviroTrac

DILUTION FACTOR CALCULATIONS

**DILUTION FACTOR CALCULATION WORKSHEET
NPDES REMEDIATION GENERAL PERMIT - NOTICE OF INTENT FORM**

Site: Shell Service Station
Address: 130 Central Avenue, Stoughton, MA
Receiving Stream: Unnamed Wetlands (Class A)

$Q_d = \underline{\quad 40 \quad} =$ Maximum flow rate of the discharge (gpm)

$Q_d = \underline{\quad 0.0892 \quad} =$ Maximum flow rate of the discharge in cubic feet per second (cfs), 1.0 gpm = 0.00223 cfs

$Q_s = \underline{\hspace{2cm}} =$ Receiving water 7Q10 flow (cfs) where,

$7Q_{10} =$ The minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

$DF = (Q_d + Q_s) / Q_d$

$DF =$ Dilution Factor $=$

NOTE:

Source: USGS, Streamflow Statistics Report, <http://ststdmamrl.er.usgs.gov/streamstats/expert.htm>

**ENDANGERED SPECIES ACT
TOWN SPECIES LIST**

In accordance with Appendix VII of the NPDES Remediation General Permit, it was determined that the four species of concern (**shortnose sturgeon**, **dwarf wedge mussel**, **bog turtle** and the **northern redbelly cooter**) are not present at the facility pursuant to USEPA Endangered Species Act Review Procedures website (<http://cfpub.epa.gov.npdes/stormwater/esa.cfm>). See attached list.

Town		Taxonomic Group	Scientific Name	Common Name	State Rank	Federal Rank	Most Recent Obs
STOUGHTON		Fish	Notropis bifrenatus	Bridle Shiner	SC		1951
STOUGHTON	*	Reptile	Clemmys guttata	Spotted Turtle	SC		1999
STOUGHTON	*	Reptile	Terrapene carolina	Eastern Box Turtle	SC		1984
STOUGHTON		Beetle	Cicindela purpurea	Purple Tiger Beetle	SC		1923
STOUGHTON		Vascular Plant	Carex polymorpha	Variable Sedge	E		1930
STOUGHTON		Vascular Plant	Cyperus houghtonii	Houghton's Flatsedge	E		1928
STOUGHTON		Vascular Plant	Panicum philadelphicum	Philadelphia Panic-Grass	SC		1931
STOUGHTON		Vascular Plant	Rotala ramosior	Toothcup	E		1929

**MASSACHUSETTS YEAR 2002
INTEGRATED LIST OF WATERS
(303 (d) LIST)**

Massachusetts Year 2002 Integrated List of Waters

Part 2 – Final Listing of Individual Categories of Waters

CN: 125.2

Commonwealth of Massachusetts
Executive Office of Environmental Affairs
Ellen Roy Herzfelder, Secretary
Massachusetts Department of Environmental Protection
Robert W. Gollidge Jr., Commissioner
Bureau of Resource Protection
Cynthia Giles, Assistant Commissioner
Division of Watershed Management
Glenn Haas, Director

September, 2003

Appendix 2

Waterbody Segments and Integrated List Categories by Major Watershed

NAME	SEGMENT ID	DESCRIPTION	ASSESS DATE	CATEGORY
Torrey Pond (94157)	MA94157_2002	Norwell	Oct-97	5
Triangle Pond (94160)	MA94160_2002	Plymouth	Oct-97	2
Upper Chandler Pond (94165)	MA94165_2002	Duxbury/Pembroke	Oct-97	4c
Wampatuck Pond (94168)	MA94168_2002	Hanson	Oct-97	5
West Chandler Pond (94170)	MA94170_2002	Pembroke	Oct-97	2
Winslow Cemetary Pond (94172)	MA94172_2002	Marshfield	Oct-97	3
Wright Pond (94174)	MA94174_2002	Duxbury	Oct-97	3
Taunton				
Ames Long Pond (62001)	MA62001_2002	Stoughton/Easton	Aug-97	5
Assawompset Pond (62003)	MA62003_2002	Lakeville/Middleborough	Aug-97	2
Assonet River (6235100)	MA62-19_2002	Confluence of Cedar Swamp River and unnamed tributary just northeast of Lakeville/Berkley/Freetown boundary, Lakeville to Route 24 Bridge, Freetown.	Dec-97	3
Assonet River (6235100)	MA62-20_2002	Route 24 bridge, Freetown to confluence with Taunton River, Freetown.	Dec-97	5
Barrowsville Pond (62007)	MA62007_2002	Norton	Dec-93	3
Beaumont Pond (62009)	MA62009_2002	Foxborough	Aug-97	3
Beaver Brook (6237350)	MA62-09_2002	Groveland Street, Brockton to confluence with Beaver Brook and Salisbury Plain River, East Bridgewater.	Dec-91	3
Beaver Brook (6235800)	MA62-30_2002	Source just west of Bay Road to inlet Old Pond, Easton. Miles 1.4-0.0	Mar-94	3
Big Bearhole Pond (62011)	MA62011_2002	Taunton	Aug-97	5
Blakes Pond (62221)	MA62221_2002	Mansfield	Sep-96	3
Briggs Pond (62021)	MA62021_2002	Sharon	Aug-97	2
Broad Cove (62022)	MA62022_2002	Dighton/Somerset	Aug-97	2
Brockton Reservoir (62023)	MA62023_2002	Avon	Aug-97	4c
Cabot Pond (62029)	MA62029_2002	Mansfield	Sep-02	5
Cain Pond (62030)	MA62030_2002	Taunton	Dec-93	5
Canoe River (6235850)	MA62-27_2002	Headwaters in wetland east of Cow Hill, Sharon to inlet Winnecunnet Pond, Norton. Miles 14.8-0.0	Dec-97	2
Carpenter Pond (62032)	MA62032_2002	Foxborough	Aug-97	3
Carver Pond (62033)	MA62033_2002	Bridgewater	Aug-97	4c
Chaffin Reservoir (62035)	MA62035_2002	Pembroke	Aug-97	3
Chartley Pond (62038)	MA62038_2002	Norton/Attleboro	Aug-97	3
Cleveland Pond (62042)	MA62042_2002	Abington	Aug-97	4c
Cocasset Lake (62043)	MA62043_2002	Foxborough	Aug-97	5
Cooper Pond (62046)	MA62046_2002	Carver	Aug-97	2
Coweaset Brook (6237500)	MA62-22_2002	Source southwest of Route24/Belmont Street interchange, Brockton to confluence Hockomock River, West Bridgewater. Miles 3.9-0.0	Dec-91	3
Crocker Pond (62051)	MA62051_2002	Wrentham	Aug-97	4c
Cross Pond (62052)	MA62052_2002	Brockton	Nov-97	3
Cross Street Pond (62053)	MA62053_2002	Bridgewater	Aug-97	3
Cushing Pond (62056)	MA62056_2002	Abington	Aug-97	4c
East Freetown Pond (62063)	MA62063_2002	Freetown	Aug-97	4c
Elm Street Pond (62066)	MA62066_2002	Halifax/Hanson	Aug-97	3
Forge Pond (62072)	MA62072_2002	Freetown	Aug-97	3

United States
Environmental Protection Agency

EnviroMapper

for Water

[Feedback](#)

DISPLAY

LABEL ALL

ACTIVE

MAP FEATURES

☐

▶ Facilities

☐

▶ Clean Watersheds Needs

☐

▶ Community Landmarks

☐

▶ Nutrient Stations

☐

▶ Water Quality Stations

☒

▶ Streets

☐

▶ Railroads

☐

▶ ZIP Codes

☐

▶ National Estuary Programs

☐

▶ Congressional Districts

☐

▶ Federal Lands

☐

▶ Watersheds

☐

▶ Tribal Lands

☐

▶ Aggregate Ecoregions

☐

▶ Level III Ecoregions

☒

▶ Counties

☒

▶ States

☒

▶ Surface Waters

☒

▶ Impaired Waters

☐

▶ Water Quality Standards

☐

▶ Assessed Waters

☐

▶ Beaches

☐

▶ Sewage No Discharge Zones

☐

▶ Nonpoint Source Projects

Update Map

Update Map

3 Miles Wide (Local)

Help

NOT IMPAIRED-303(d)

Click on map

☒ Zoom In

By 2X

☐ Zoom to View

Local

☐ Recenter Map

☐ Show Location

☐ Identify Active

☐ Add

Multi

Zoom

Multi-color Menu

Display in Multi-color Mode:

- ☐ Impaired Waters

☐ Water Quality Standards

Update Map

LABORATORY ANALYTICAL
(SYSTEM INFLUENT)

REPORT OF ANALYTICAL RESULTS

NETLAB Case Number Q0927-19

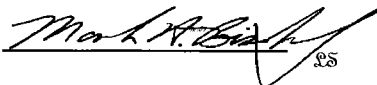
REVISED

Prepared for:

Attn: Eric Simpson
Envirotrac Ltd.
1400 Providence Hwy, Suite 2100
Norwood, MA 02062

Report Date: October 7, 2005

Lab # RI010

ANALYTICAL METHOD REPORT CERTIFICATION FORM					
Laboratory Name: New England Testing Laboratory, Inc.			Project #:		
Project Location: Stoughton 130			RTN ¹ :		
This form provides certifications for the following data set: Q0927-19					
Sample Matrices: Groundwater (X) Soil/Sediment () Drinking Water () Other:					
SW-846 Methods Used	8260B ()	8151A ()	8330 ()	6010B ()	7470A/1A ()
	8270C ()	8081A ()	VPH ()	6020 ()	9014M ² ()
	8082 ()	8021B ()	EPH ()	7000 S ³ ()	Other: (X)
	1 List Release Tracking Number (RTN), if known 2 M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method 3 S – SW-846 Methods 7000 Series List individual method and analyte				
An affirmative response to questions A, B, and C 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 (X) No ¹ ()
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 (X) No ¹ ()
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				Yes (X) No ¹ () Not Applicable ()
D	<u>VPH and EPH Methods only:</u> Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)				Yes () No ¹ ()
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 (X) No ¹ ()
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?				Yes (X) No ¹ ()
¹ All NO answers must be addressed in an attached Environmental Laboratory case narrative.					
<i>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.</i>					
Signature: 		Position: <u>Laboratory Director</u>			
Printed Name: <u>Mark H. Bishop</u>		Date: <u>10/7/2005</u>			

ANALYTICAL METHOD REPORT CERTIFICATION FORM					
Laboratory Name: New England Testing Laboratory, Inc.			Project #:		
Project Location: Stoughton 130			RTN ¹ :		
This form provides certifications for the following data set: Q0927-19					
Sample Matrices: Groundwater (X) Soil/Sediment () Drinking Water () Other:					
SW-846 Methods Used	8260B ()	8151A ()	8330 ()	6010B ()	7470A/1A ()
	8270C ()	8081A ()	VPH ()	6020 ()	9014M ² ()
	8082 ()	8021B ()	EPH ()	7000 S ³ ()	Other: (X)
	¹ List Release Tracking Number (RTN), if known ² M – SW-846 Method 9014 or MADEP Physiologically Available Cyanide (PAC) Method ³ S – SW-846 Methods 7000 Series List individual method and analyte				
An affirmative response to questions A, B, and C 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 (X) No ¹ ()
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 (X) No ¹ ()
C	Does the analytical data included in this report meet all the requirements for "Presumptive Certainty", as described in Section 2.0 of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?				Yes (X) No ¹ () Not Applicable ()
D	<u>VPH and EPH Methods only:</u> Was the VPH and EPH Method conducted without significant modifications (see Section 11.3 of respective Methods)				Yes () No ¹ ()
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 (X) No ¹ ()
F	Were results for all analyte-list compounds/elements for the specified method(s) reported?				Yes (X) No ¹ ()
¹ All NO answers must be addressed in an attached Environmental Laboratory case narrative.					
<i>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.</i>					
Signature: <u>Jodi Lyons</u>		Position: <u>Director, Inorganics</u>			
Printed Name: <u>Jodi Lyons</u>		Date: <u>11/6/2005</u>			

**STATEMENTS/CERTIFICATIONS REQUIRED BY THE NATIONAL
ENVIRONMENTAL LABORATORY APPROVAL CONFERENCE (NELAC)**

New England Testing Laboratory is certified under the National Environmental Laboratory Approval Program (NELAP). This certification requires the following statements and certifications be included in our report.

This report shall not be reproduced, except in full, without written approval of the laboratory.

New England Testing certifies that the test results contained within this report meet all NELAC requirements except as detailed in the Case Narrative section of this report.



New England Testing Laboratory, Inc.

SAMPLES SUBMITTED and REQUEST FOR ANALYSIS:

The samples listed in Table I were submitted to New England Testing Laboratory on September 27, 2005. The group of samples appearing in this report was assigned an internal identification number (case number) for laboratory information management purposes. The client's designations for the individual samples, along with our case numbers, are used to identify the samples in this report. The case number for this sample submission is Q0927-19.

Custody records are included in this report.

Site: Stoughton 130

TABLE I, Samples Submitted

Sample ID	Date Sampled	Matrix	Analysis Requested
System Inf	9/26/05	Water	Table II



New England Testing Laboratory, Inc.

TABLE II, Analysis and Methods

ANALYSIS	DETERMINATIVE METHOD
Total Petroleum Hydrocarbons	1664A
PCBs	608
Total Metals	
Antimony	3113B
Cadmium	3113B
Chromium	200.7
Copper	200.7
Iron	200.7
Lead	3113B
Mercury	245.1
Nickel	200.7
Selenium	3113B
Silver	3113B
Zinc	200.7
Total Suspended Solids	160.2
Residual Chlorine	330.5
Hexavalent Chromium	7196A

These methods are documented in:

40 CFR 136, Guidelines Establishing Test Procedures for the Analysis of Pollutants Under the Clean Water Act, Office of Federal Register National Archives and Records Administration.



New England Testing Laboratory, Inc.

CASE NARRATIVE:

Sample Receipt:

No sample for ms/msd/duplicate analysis was supplied. No field blank was supplied. (This does not qualify the analytical results but does prevent conducting these SW-846 {Chapter 1, Section 3.4} QA Audits.)

The samples were all appropriately cooled and preserved upon receipt.

The samples were received in the appropriate containers.

The chain of custody was adequately completed and corresponded to the samples submitted.

Metals:

All analyses were performed according to NETLAB's documented Standard Operating Procedures, within all required holding times, and with appropriate quality control measures. All QC was within laboratory established acceptance criteria. The samples were received, processed, and reported with no anomalies.

PCBs:

All samples were extracted and analyzed within method specified holding times and according to NETLAB's documented standard operating procedures. The results for the associated calibration, method blank and laboratory control sample (LCS) were within method specified quality control criteria.

General Chemistry:

Total Suspended Solids: No anomalies or excursions from QC limits

Total Residual Chlorine: No anomalies or excursions from QC limits

Hexavalent Chromium: No anomalies or excursions from QC limits

Sample Results

System Inf

Parameter	Result, mg/l	Reporting Limit	Date Analyzed
Total Suspended Solids	N.D.	1	9/29/05
Residual Chlorine	N.D.	0.02	9/27/05
Hexavalent Chromium	N.D.	0.01	9/27/05 @ 18:40
Total Petroleum Hydrocarbons	N.D.	2	10/4/05

N.D. = Not Detected

METALS RESULTS

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Metals Analysis Department certifies that the results included in this section have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

METALS RESULTS



Case Number: Q0927-19
 Sample ID: System Inf
 Date collected: 09/26/05
 Matrix: WATER
 Sample Type: TOTAL

Analyst CC/RM

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	NA	3113B	0.003	0.002	0.002	mg/l	9/29/05	10/6/05
Cadmium	7440-43-9	NA	3113B	0.0006	0.0005	0.0005	mg/l	9/29/05	9/30/05
Chromium	7440-47-3	NA	200.7	ND	0.005	0.005	mg/l	9/28/05	9/30/05
Copper	7440-50-8	NA	200.7	0.03	0.02	0.02	mg/l	9/28/05	9/30/05
Iron	7439-89-6	NA	200.7	0.24	0.05	0.05	mg/l	9/28/05	9/30/05
Lead	7439-92-1	NA	3113B	0.004	0.002	0.002	mg/l	9/29/05	10/3/05
Mercury	7439-97-6	NA	245.1	ND	0.0002	0.0002	mg/l	9/29/05	9/29/05
Nickel	7440-02-0	NA	200.7	0.008	0.005	0.005	mg/l	9/28/05	9/30/05
Selenium	7782-49-2	NA	3113B	ND	0.005	0.005	mg/l	9/29/05	10/6/05
Silver	7440-22-4	NA	3113B	ND	0.0005	0.0005	mg/l	9/29/05	10/4/05
Zinc	7440-66-6	NA	200.7	0.06	0.02	0.02	mg/l	9/28/05	9/30/05

ND indicates not Detected

METALS RESULTS



Sample ID: METHOD BLANK

Matrix WATER

Analyst CC/RM

Sample Type: Preparation Blank

Parameter	CAS Number	Preparative Method	Analytical Method	Result	Reporting Limit	Detection Limit	Units	Date of Preparation	Date Analyzed
Antimony	7440-36-0	NA	3113B	ND	0.005	0.005	mg/l	9/29/05	10/6/05
Cadmium	7440-43-9	NA	3113B	ND	0.0005	0.0005	mg/l	9/29/05	9/30/05
Chromium	7440-47-3	NA	200.7	ND	0.005	0.005	mg/l	9/28/05	9/29/05
Copper	7440-50-8	NA	200.7	ND	0.02	0.02	mg/l	9/28/05	9/29/05
Iron	7439-89-6	NA	200.7	ND	0.05	0.05	mg/l	9/28/05	9/29/05
Lead	7439-92-1	NA	3113B	ND	0.002	0.002	mg/l	9/29/05	10/3/05
Mercury	7439-97-6	NA	245.1	ND	0.0002	0.0002	mg/l	9/29/05	9/29/05
Nickel	7440-02-0	NA	200.7	ND	0.005	0.005	mg/l	9/28/05	9/29/05
Selenium	7782-49-2	NA	3113B	ND	0.005	0.005	mg/l	9/29/05	10/6/05
Silver	7440-22-4	NA	3113B	ND	0.0005	0.0005	mg/l	9/29/05	10/4/05
Zinc	7440-66-6	NA	200.7	ND	0.02	0.02	mg/l	9/28/05	9/29/05

ND indicates not Detected

LABORATORY CONTROL SAMPLE RECOVERY

Parameter	True Value	Result	Units	Recovery, %	LCL, %	UCL, %	Date Analyzed
Antimony	0.0200	0.0209	mg/l	105	81	123	10/6/05
Cadmium	0.00500	0.00475	mg/l	95.0	80	122	9/30/05
Chromium	1.000	0.985	mg/l	98.5	89	110	9/29/05
Copper	1.000	1.05	mg/l	105	87	113	9/29/05
Iron	1.000	1.09	mg/l	109	74	122	9/29/05
Lead	0.0200	0.0183	mg/l	91.7	86	119	10/3/05
Mercury	0.00100	0.000999	mg/l	99.9	89	114	9/29/05
Nickel	1.000	1.00	mg/l	100	89	109	9/29/05
Selenium	0.0200	0.0198	mg/l	99	88	113	10/6/05
Silver	0.00500	0.00514	mg/l	102.8	71	118	10/4/05
Zinc	1.000	1.00	mg/l	100	91	110	9/29/05

RESULTS: PCBs

The presence of the NETLAB LOGO in the top right corner of each page in this section indicates:

The Technical Manager of the Organics Analysis Department certifies that the samples included in this section have been prepared and analyzed using the procedures cited and that the results have been reviewed and approved. Any exceptions or qualifications of substance have been reported in the case narrative.

Sample: System Inf

Case No. Q0927-19
Date Extracted: 10/3/05
Date Analyzed: 10/5/05

Subject: PCBs
Method: EPA 608

<u>Compound</u>	<u>Concentration</u> <u>ug/l (ppb)</u>	<u>Reporting</u> <u>Limit</u>
PCB-1016	N.D.	0.2
PCB-1221	N.D.	0.4
PCB-1232	N.D.	0.2
PCB-1242	N.D.	0.2
PCB-1248	N.D.	0.2
PCB-1254	N.D.	0.2
PCB-1260	N.D.	0.2

Surrogates:

<u>Compound</u>	<u>% Recovery</u>	<u>Limits</u>
TCMX	68	25-141
DCBP	70	41-156

Sample: Method Blank

Case No. Q0927-19
Date Extracted: 10/3/05
Date Analyzed: 10/5/05

Subject: PCBs
Method: EPA 608

<u>Compound</u>	<u>Concentration ug/l (ppb)</u>	<u>Reporting Limit</u>
PCB-1016	N.D.	0.2
PCB-1221	N.D.	0.4
PCB-1232	N.D.	0.2
PCB-1242	N.D.	0.2
PCB-1248	N.D.	0.2
PCB-1254	N.D.	0.2
PCB-1260	N.D.	0.2

Surrogates:

<u>Compound</u>	<u>% Recovery</u>	<u>Limits</u>
TCMX	68	25-141
DCBP	73	41-156

PCB Laboratory Control Spike

Date Collected: NA			Analyst:	DC
Sample Matrix: Water				
Subject: PCB	Date Extracted			Date Analyzed
Prep Method: EPA 3510C	10/3/05			10/5/05
Analytical Method: EPA 8082				
Compound	Amount Spiked ug/l	Result ug/l	Recovery %	Recovery Limits
1254-1	0.50	0.50	99	40-140
Surrogates:	% Recovery	Limits		
TCMX	65	19-139		
DCBP	65	29-155		

Custody Records

NEW ENGLAND TESTING LABORATORY, INC.
1254 Douglas Avenue
North Providence, RI 02904

CHAIN OF CUSTODY RECORD

[illegible]



10/20/05

Technical Report for

Shell Oil

ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

ECI

Accutest Job Number: M51179

Sampling Date: 09/26/05

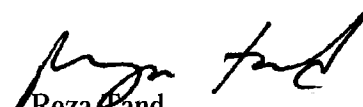
Report to:

msmith@newfields.com

Total number of pages in report: 45



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.


Reza Fand
Lab Director

Certifications: MA (M-MA136) CT (PH-0109) NH (250204) RI (00071) ME (MA136) FL (E87579)
NY (23346) NJ (MA926) NAVY USACE

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Table of Contents

-1-

Section 1: Sample Summary	3
Section 2: Sample Results	4
2.1: M51179-1: SYSTEM 1NF	4
2.2: M51179-1A: SYSTEM 1NF	8
2.3: M51179-1B: SYSTEM 1NF	9
Section 3: Misc. Forms	10
3.1: Chain of Custody	11
Section 4: GC/MS Volatiles - QC Data Summaries	20
4.1: Method Blank Summary	21
4.2: Blank Spike Summary	23
4.3: Blank Spike/Blank Spike Duplicate Summary	24
4.4: Matrix Spike/Matrix Spike Duplicate Summary	25
4.5: Surrogate Recovery Summaries	27
Section 5: GC/MS Semi-volatiles - QC Data Summaries	28
5.1: Method Blank Summary	29
5.2: Blank Spike/Blank Spike Duplicate Summary	31
5.3: Matrix Spike/Matrix Spike Duplicate Summary	33
5.4: Surrogate Recovery Summaries	35
Section 6: Metals Analysis - QC Data Summaries	37
6.1: Prep QC MP7699: As	38
Section 7: General Chemistry - QC Data Summaries	42
7.1: Method Blank and Spike Results Summary	43
7.2: Duplicate Results Summary	44
7.3: Matrix Spike Results Summary	45

Sample Summary

Shell Oil

Job No: M51179

ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA
Project No: ECI

Sample Number	Collected Date	Time By	Received	Matrix Code Type	Client Sample ID
M51179-1	09/26/05	13:50 JS	09/28/05	AQ Ground Water	SYSTEM INF
M51179-1A	09/26/05	13:50 JS	09/28/05	AQ Ground Water	SYSTEM INF
M51179-1B	09/26/05	13:50 JS	09/28/05	AQ Ground Water	SYSTEM INF

Report of Analysis

Page 1 of 1

Client Sample ID: SYSTEM 1NF

Lab Sample ID: M51179-1

Date Sampled: 09/26/05

Matrix: AQ - Ground Water

Date Received: 09/28/05

Method: SW846 8260B

Percent Solids: n/a

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N4322.D	1	10/06/05	ZW	n/a	n/a	MSN154
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
100-41-4	Ethylbenzene	2.6	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	92.6	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	2.7	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	9.2	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		82-127%
2037-26-5	Toluene-D8	106%		88-112%
460-00-4	4-Bromofluorobenzene	109%		80-118%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SYSTEM 1NF		Date Sampled:	09/26/05
Lab Sample ID:	M51179-1		Date Received:	09/28/05
Matrix:	AQ - Ground Water		Percent Solids:	n/a
Method:	SW846 8270C SW846 3510C			
Project:	ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	E24570.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN PPL List

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	ug/l	
100-02-7	4-Nitrophenol	ND	5.0	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	10	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	47%		10-120%
4165-62-2	Phenol-d5	34%		10-120%
118-79-6	2,4,6-Tribromophenol	80%		31-123%
4165-60-0	Nitrobenzene-d5	68%		32-120%
321-60-8	2-Fluorobiphenyl	69%		32-120%
1718-51-0	Terphenyl-d14	69%		33-123%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	SYSTEM 1NF	Date Sampled:	09/26/05
Lab Sample ID:	M51179-1	Date Received:	09/28/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA		

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 5.0	5.0	ug/l	1	10/03/05	10/05/05 AC	SW846 6010B ¹	SW846 3010A ²

(1) Instrument QC Batch: MA6310

(2) Prep QC Batch: MP7699

RL = Reporting Limit

Report of Analysis

Page 1 of 1

2.1
2

Client Sample ID:	SYSTEM 1NF	Date Sampled:	09/26/05
Lab Sample ID:	M51179-1	Date Received:	09/28/05
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Project:	ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Cyanide	< 0.010	0.010	mg/l	1	10/01/05 12:13	MA	EPA 335.3

RL = Reporting Limit

Report of Analysis

Page 1 of 1

2.2
2

Client Sample ID:	SYSTEM 1NF		
Lab Sample ID:	M51179-1A	Date Sampled:	09/26/05
Matrix:	AQ - Ground Water	Date Received:	09/28/05
Method:	SW846 8260B	Percent Solids:	n/a
Project:	ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	G53341.D	1	10/04/05	AA	n/a	n/a	MSG2127
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Oxygenates

CAS No.	Compound	Result	RL	Units	Q
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
75-65-0	Tert Butyl Alcohol	ND	100	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		82-127%
2037-26-5	Toluene-D8	102%		88-112%
460-00-4	4-Bromofluorobenzene	101%		80-118%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SYSTEM 1NF
 Lab Sample ID: M51179-1B
 Matrix: AQ - Ground Water
 Method: SW846 8270C BY SIM SW846 3510C
 Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Date Sampled: 09/26/05
 Date Received: 09/28/05
 Percent Solids: n/a

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F16118.D	1	10/04/05	PB	09/29/05	OP9727	MSF879
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

ABN Special List

CAS No.	Compound	Result	RL	Units	Q
87-86-5	Pentachlorophenol	ND	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.0	ug/l	
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	0.33	0.20	ug/l	
91-20-3	Naphthalene	0.86	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.10	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
367-12-4	2-Fluorophenol	46%		10-120%
4165-62-2	Phenol-d5	32%		10-120%
118-79-6	2,4,6-Tribromophenol	73%		23-135%
4165-60-0	Nitrobenzene-d5	59%		30-120%
321-60-8	2-Fluorobiphenyl	68%		25-120%
1718-51-0	Terphenyl-d14	62%		24-132%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

495 TECHNOLOGY CENTER WEST • BUILDING ONE
MARLBOROUGH, MA 01752
TEL: 508-481-6200 • FAX: 508-481-7753

ACCUTEST JOB #: M51170

ACCUTEST QUOTE

[illegible]

M51179: Chain of Custody

Page 1 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS
PART 1 of 2

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML	
MISCELLANEOUS COMPOUNDS			
Total Suspended Solids	150.2	5 mg/l	30 mg/l
Total Petroleum Hydrocarbons	166.1	5 mg/l	5.0 mg/l
PCBs			
Total Polychlorinated Biphenyls (PCBs)	603	0.5 ug/l	0.000064 ug/l (compliance limit = ML of test method used)
	4683a ⁴⁴	0.00035-ug/l	
INORGANIC PARAMETERS			
Total Chromium	Flame-AA (213.4)	none specified	Chromium III: MA = FW = 48.8 ug/l, MA = SW = 100 ug/l, NH = FW = 27.7 ug/l, NH = SW = 100 ug/l
	ICP (200.7 ¹¹)	10 ug/l	
	ICP (200.8)	10 ug/l	
	ICP (200.19)	10 ug/l	
	ICP (4620)	10 ug/l	
	Furnace-AA (200.9)	5 ug/l	
	Other	60 ug/l	
Total Copper (Cu)	Flame-AA	20 ug/l	MA = FW = 5.2 ug/l, MA = SW = 3.7 ug/l, NH = FW = 2.9 ug/l, NH = SW = 3.7 ug/l
	ICP	5 ug/l	
	Furnace-AA	3 ug/l	
Total Mercury (Hg)	Other	0.2 ug/l	MA & NH = FW = 0.9 ug/l, MA & NH = SW = 1.1 ug/l
Total Iron (Fe)	6040b	see footnote	MA & NH = 1,000 ug/l
	200.7 ¹²	see footnote	

Prepared by NewFields

9/20/2005

Part 1 of 2 - Page 1 of 2

M51179: Chain of Custody
Page 2 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS PART 1 of 2

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML	

LEGEND:

RGP = Remediation General Permit
 Flame AA = Flame Atomic Absorption
 ICP = Inductively Coupled Plasma
 Furnace AA = Furnace Atomic Absorption
 FW = Freshwater
 SW = Saltwater
 MA = State of Massachusetts
 NH = State of New Hampshire

FOOTNOTES:

1. Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B). Where a minimum level (ML) is listed but a test method is not specified, permittees may use any of the available methods approved for use under 40 CFR 136, including alternatives approved by this permit. That meets ML. See EPA's "Methods and Guidance for the Analysis of Water" at www.epa.gov/water/owwcatalog.nsf. Where a test method is specified but ML is not listed for that Method, the lowest ML for listed methods must be used before concentration can be considered as "in detection".
2. For measuring volatile organic compounds, Method 8260C (or the latest version) may be used as a substitute for CWA Methods 524.2, 602, 624, or 1624. Method 8260C must be preceded by Method 5030 as the preparation method. However, any method changes must be accompanied by documented quality assurance quality control (QA/QC) test to prove that the analytical process can achieve the lower detection limits of Method 8260C. For TBA and TAME the EPA advises no acid as a preservative.
3. For measuring semi-volatile organic compounds, Method 8270D may be used as a substitute for Methods 610, 625, or 1625. Method 8270D must be preceded by Method 3520C as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). Any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8270D.
4. GC - gas chromatography.
5. GC/MS - gas chromatography/mass spectrometry
6. LC-High pressure liquid chromatography.
7. Flame Atomic Absorption.
8. For measuring fuel oxygenates, Method 802 must be modified to include a heated purge.
9. The sum of individual phthalate compounds.
10. In the November 2002 WQC, EPA has revised the definition of total PCBs for aquatic life as "total PCBs is the sum of all homologues, all isomer, all congener, or all Aroclor analyses.
11. Method 1668a (HRGC/HRMS) has been proposed by EPA and is currently being validated. When approval of the method is finalized, it will be approved for use with this general permit.
12. Methods 601.0b and 200.7 for metals may only be used when sample prepared with SW-546 digestion method, Method 3010.
13. Any value below the ML shall be reported as zero.
14. Analysis of the influant samples shall use the test methods with the MLs at or below limits where practicable.

Prepared by NewFields

5/20/2005

Part 1 of 2 - Page 2 of 2

M51179: Chain of Custody
Page 3 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS
PART 2 of 2 (ACCUTEST)

PARAMETER	Minimum Levels and Test Methods	ML*	Discharge Effluent Limit
MISCELLANEOUS COMPOUNDS			
Cyanide (total)	335.4	10 ug/l	MA & NH = SW = 1.0 ug/l, MA & NH = FW = 5.2 ug/l (compliance limit = ML = 10 ug/l)
VOLEATLE ORGANIC COMPOUNDS			
Benzene	602	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
Toluene	8250C ²	see footnote	Limited as Total BTEX
	602	0.5 ug/l	
Ethylbenzene	624	2 ug/l	Limited as Total BTEX
	8250C ²	see footnote	
Xylenes (total)	602	0.5 ug/l	Limited as Total BTEX
	4824	40 ug/l	
Total BTEX	8250C ²	see footnote	100 ug/l
	602	0.5 ug/l	
Ethylene Dibromide (EDB), 1,2-Dibromomethane	618	4.0 ug/l	0.05 ug/l (must use method 504.1 for sites certifying this compound is not present)
	504.1	0.01 ug/l	
	524.2	0.1 ug/l	
	8250C ²	see footnote	
Methyl tert-butyl ether (MTBE)	602 ⁴	0.5 ug/l	70 ug/l
	524.2	5.0 ug/l	
tert-Butyl Alcohol (TBA)	602 ⁴	0.5 ug/l	Monitor Only
	8250C ²	see footnote	
tert-Amyl Methyl Ether (TAME)	602 ⁴	0.5 ug/l	Monitor Only
	8250C ²	see footnote	
Naphthalene	613 (GC/MS)	40 ug/l	20 ug/l
	625	2 ug/l	
	524.2	5 ug/l	
	610 HPLC	0.2 ug/l	
Carbon Tetrachloride	8270D ³	see footnote	4.4 ug/l
	601	0.5 ug/l	
	624	2 ug/l	
	4824	2 ug/l	
	8250C ²	see footnote	
	601	0.5 ug/l	

Prepared by NewFields

9/20/2005

Part 2 of 2 - Page 1 of 6

M51179: Chain of Custody
Page 4 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS
PART 2 of 2 (ACCUTEST)

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML	
1,4-Dichlorobenzene (o-DCB)	602	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	625	2 ug/l	
	8260C ²	see footnote	
1,2-Dichlorobenzene (o-DCB)	604	0.5 ug/l	800 ug/l
	602	0.5 ug/l	
	624	2 ug/l	
	8260C ²	see footnote	
1,3-Dichlorobenzene (m-DCB)	604	0.5 ug/l	320 ug/l
	602	0.5 ug/l	
	624	2 ug/l	
	8260C ²	see footnote	
1,1 Dichloroethane (DCA)	604	0.5 ug/l	70 ug/l
	624	1 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
1,2 Dichloroethane (DCA)	604	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
1,1 Dichloroethene (DCE)	604	0.5 ug/l	3.2 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
cis-1,2 Dichloro-ethylene (DCE)	604	0.5 ug/l	70 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
Dichloromethane (Methylene Chloride)	604	0.5 ug/l	4.5 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
Tetrachloroethylene (PCE)	604	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
1,1,1 Trichloro-ethane (TCA)	604	0.5 ug/l	200 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	
1,1,2 Trichloro-ethane (TCA)	604	0.5 ug/l	5.0 ug/l
	624	2 ug/l	
	8260C ²	see footnote	
	8260C ²	see footnote	

M51179: Chain of Custody
Page 5 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS
PART 2 of 2 (ACCUTEST)

PARAMETER	Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML	
Trichloroethylene (TCE)	604	0.5-ug/l	5.0 ug/l
	824	2-ug/l	
	8260C ²	see footnote	
Vinyl Chloride (chloroethene)	604	0.5-ug/l	2.0 ug/l
	824	2-ug/l	
	8260C ²	see footnote	
Acetone	824-2	1.0-ug/l	Monitor Only
	4624	50-ug/l	
	8260C ²	see footnote	
	4624	50-ug/l	
1,4 Dioxane	8290C ²	see footnote	Monitor Only
PHENOL COMPOUNDS			
Total Phenols	624	1.0-ug/l	300 ug/l
	8260 ²	see footnote	
	626	1.0-ug/l	
	4626	1.0-ug/l	
	8260C ²	see footnote	
BASE NEUTRALIZABLE EXTRACTABLE COMPOUNDS			
Pentachlorophenol (PCP)	604-(GC/FID)	1.0-ug/l	1.0 ug/l
	626	6-ug/l	
	4626	6-ug/l	
Total Phthalates ⁸ (Phthalate esters)	8270D ² (SIM, ML=1.0)	see footnote	3.0 ug/l
	625	6-ug/l	
Bis (2-Ethylhexyl) Phthalate	8270D ² (SIM, ML=3.0)	see footnote	6.0 ug/l
	606	10-ug/l	
	625	6-ug/l	
	8270D ²	see footnote	

M51179: Chain of Custody
Page 6 of 9

Prepared by NewFields

9/20/2005

Part 2 of 2 - Page 3 of 6

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS
PART 2 of 2 (ACCUTEST)

PARAMETER	Minimum Levels and Test Methods METHOD	ML*	Discharge Effluent Limit
POLYNUCLEAR AROMATIC (PNA) HYDROCARBON COMPOUNDS			
Total Group I Polynuclear Aromatic Hydrocarbons (PAH)	8270D ³	see footnote	10.0 ug/l
Benzo (a) Anthracene	610-GC	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	625	5-ug/l	
	610-HP/LC	0-35-ug/l	
	8270D ³	see footnote	
Benzo (a) pyrene	625	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	610-HP/LC	2-ug/l	
	8270D ³	see footnote	
Benzo (b) fluoranthene	625	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	610-HP/LC	0-4-ug/l	
	8270D ³	see footnote	
Benzo (k) fluoranthene	625	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	610-HP/LC	2-ug/l	
	8270D ³	see footnote	
Chrysene	625	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	610-HP/LC	5-ug/l	
	8270D ³	see footnote	
Dibenz (a,h) anthracene	625	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	610-HP/LC	0-4-ug/l	
	8270D ³	see footnote	
Indeno (1,2,3-cd) pyrene	625	10-ug/l	0.0038 ug/l (compliance limit = ML of test method used)
	610-HP/LC	0-15-ug/l	
	8270D ³	see footnote	

Prepared by NewFields

9/20/2005

Part 2 of 2 - Page 4 of 6

M51179: Chain of Custody
Page 7 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS
PART 2 of 2 (ACCUTEST)

PARAMETER		Minimum Levels and Test Methods		Discharge Effluent Limit
	METHOD	ML		
Total Group II Polynuclear Aromatic Hydrocarbons	8270D ³	see footnote		100 ug/l
	640-GC/FID	4-ug/l	Limited as Total Group II PAHs	
	635	1-ug/l		
	640-HPLC	0.5-ug/l		
	8270D ³	see footnote		
Acenaphthylene	635	10-ug/l	Limited as Total Group II PAHs	
	640-HPLC	0.2-ug/l		
	8270D ³	see footnote		
	825	10-ug/l		
Anthracene	640-HPLC	2-ug/l	Limited as Total Group II PAHs	
	8270D ³	see footnote		
	825	5-ug/l		
	640-HPLC	0.1-ug/l		
Benzo(a,h)perylene	8270D ³	see footnote	Limited as Total Group II PAHs	
	640-GC/FID	40-ug/l		
	635	4-ug/l		
	640-HPLC	0.6-ug/l		
Fluoranthene	8270D ³	see footnote	Limited as Total Group II PAHs	
	635	10-ug/l		
	640-HPLC	0.1-ug/l		
		8270D ³		see footnote
Fluorene	635	10-ug/l	Limited as Total Group II PAHs	
	640-HPLC	0.1-ug/l		
	8270D ³	see footnote		
	825	6-ug/l		
Phenanthrene	640-HPLC	0.05-ug/l	Limited as Total Group II PAHs	
	8270D ³	see footnote		
	635	10-ug/l		
	640-HPLC	0.05-ug/l		
Pyrene	8270D ³	see footnote	Limited as Total Group II PAHs	
	635	10-ug/l		
	640-HPLC	0.05-ug/l		
	8270D ³	see footnote		
INORGANIC PARAMETERS				
Total Arsenic (As)	ICP	5 ug/l	MA & NH = FW = 10 ug/l, MA & NH = SW = 35 ug/l	
	Furnace-AA	2 ug/l		

M51179: Chain of Custody
Page 8 of 9

CHAIN OF CUSTODY ATTACHMENT - EPA NPDES RGP REQUIREMENTS PART 2 of 2 (ACCUTEST)

PARAMETER	Minimum Levels and Test Methods	Discharge Effluent Limit
	METHOD	ML

LEGEND:

RGP = Remediation General Permit
Flame AA = Flame Atomic Absorption
ICP = Inductively Coupled Plasma
Furnace AA = Furnace Atomic Absorption
FW = Freshwater
SW = Saltwater
MA = State of Massachusetts
NH = State of New Hampshire

FOOTNOTES:

1. Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B) where a minimum level (ML) is listed but a test method is not specified, permittee may use any of the available methods approved for use under 40 CFR 136, including alternatives approved by this permit, that meets ML. See EPA's "Methods and Guidance for the Analysis of Water" at www.epa.gov/water/owrcatalog.nsf. Where a test method is specified but ML is not listed for that Method, the lowest ML for listed methods must be used before concentration can be considered as "non-detect".
2. For measuring volatile organic compounds, Method 8260C (or the latest version) may be used as a substitute for CWA Methods 524.2, 502, 524, or 1524. Method 8260C must be preceded by Method 5030 as the preparation method. However, any method changes must be accompanied by documented quality assurance quality control (QA/QC) test to prove that the analytical process can achieve the lower detection limits of Method 8260C. For TBA and TAME the EPA advises no acid as a preservative.
3. For measuring semi-volatile organic compounds, Method 8270D may be used as a substitute for Methods 610, 625, or 1625. Method 8270D must be preceded by Method 3520C as the sample preparation method. In either case, the quality control requirements of Method 3500B must be taken into account. The sample preparation method must be specified with data analysis records. Method 8270D may be modified to provide lower detection and quantitation limits using Selected Ion Monitoring (SIM). Any method changes must be accompanied by documented quality assurance quality control (QA/QC) test results to prove that the analytical process can achieve the lower detection limits of Method 8270D.
4. GC - gas chromatography.
5. GC/MS - gas chromatography/mass spectrometry
6. LC-high pressure liquid chromatography.
7. Flame Atomic Absorption.
8. For measuring total organohalides, Method 802 must be modified to include a heated purge.
9. The sum of individual particulate compounds.
10. In the November 2002 WQC, EPA has revised the definition of total PCBs for aquatic life as "total PCBs is the sum of all homologues, all isomers, all congeners, or all Aroclor analyses."
11. Method 1661a (HRGC/HRMS) has been proposed by EPA and is currently being validated. When approval of the method is finalized, it will be approved for use with this general permit.
12. Methods 6010b and 200.7 for metals may only be used when sample prepared with SW-846 digestion method, Method 3010.
13. Any value below the ML shall be reported as zero.
14. Analysis of the influent samples shall use the test methods with the MLs at or below limits where practicable.

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9/20/2005

Part 2 of 2 - Page 6 of 6

M51179: Chain of Custody
Page 9 of 9

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG2127-MB	G53324.D	1	10/04/05	AA	n/a	n/a	MSG2127

The QC reported here applies to the following samples:

Method: SW846 8260B

M51179-1A

CAS No.	Compound	Result	RL	Units	Q
994-05-8	tert-Amyl Methyl Ether	ND	2.0	ug/l	
75-65-0	Tert Butyl Alcohol	ND	100	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	107% 82-127%
2037-26-5	Toluene-D8	101% 88-112%
460-00-4	4-Bromofluorobenzene	101% 80-118%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Method Blank Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN154-MB	N4319.D	1	10/06/05	ZW	n/a	n/a	MSN154

The QC reported here applies to the following samples:

Method: SW846 8260B

M51179-1

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
123-91-1	1,4-Dioxane	ND	25	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	114% 82-127%
2037-26-5	Toluene-D8	105% 88-112%
460-00-4	4-Bromofluorobenzene	112% 80-118%

Blank Spike Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSG2127-BS	G53321.D	1	10/04/05	AA	n/a	n/a	MSG2127

The QC reported here applies to the following samples:

Method: SW846 8260B

M51179-1A

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
994-05-8	tert-Amyl Methyl Ether	50	56.4	113	61-139
75-65-0	Tert Butyl Alcohol	500	536	107	42-161

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	82-127%
2037-26-5	Toluene-D8	100%	88-112%
460-00-4	4-Bromofluorobenzene	98%	80-118%

4.2

4

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSN154-BS	N4316.D	1	10/06/05	ZW	n/a	n/a	MSN154
MSN154-BSD	N4317.D	1	10/06/05	ZW	n/a	n/a	MSN154

The QC reported here applies to the following samples:

Method: SW846 8260B

M51179-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	34.5	69	30.5	61	12	31-150/25
71-43-2	Benzene	50	49.1	98	46.3	93	6	73-127/25
56-23-5	Carbon tetrachloride	50	71.1	142* a	68.9	138	3	70-141/25
95-50-1	1,2-Dichlorobenzene	50	45.6	91	44.2	88	3	75-125/25
541-73-1	1,3-Dichlorobenzene	50	42.2	84	43.3	87	3	76-124/25
106-46-7	1,4-Dichlorobenzene	50	44.6	89	44.7	89	0	76-127/25
75-34-3	1,1-Dichloroethane	50	50.6	101	49.9	100	1	70-136/25
107-06-2	1,2-Dichloroethane	50	58.8	118	58.7	117	0	68-137/25
75-35-4	1,1-Dichloroethene	50	48.4	97	48.6	97	0	65-142/25
156-59-2	cis-1,2-Dichloroethene	50	55.5	111	52.4	105	6	72-130/25
123-91-1	1,4-Dioxane	250	263	105	246	98	7	50-140/25
100-41-4	Ethylbenzene	50	49.2	98	48.2	96	2	77-126/25
1634-04-4	Methyl Tert Butyl Ether	50	55.4	111	53.4	107	4	65-135/25
75-09-2	Methylene chloride	50	49.8	100	48.4	97	3	67-136/25
127-18-4	Tetrachloroethene	50	48.2	96	45.3	91	6	66-142/25
108-88-3	Toluene	50	49.7	99	46.3	93	7	76-124/25
71-55-6	1,1,1-Trichloroethane	50	55.8	112	52.9	106	5	71-137/25
79-00-5	1,1,2-Trichloroethane	50	54.2	108	52.2	104	4	68-134/25
79-01-6	Trichloroethene	50	48.2	96	45.7	91	5	71-130/25
75-01-4	Vinyl chloride	50	58.1	116	53.8	108	8	46-151/25
1330-20-7	Xylene (total)	150	146	97	148	99	1	78-129/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	110%	110%	82-127%
2037-26-5	Toluene-D8	106%	104%	88-112%
460-00-4	4-Bromofluorobenzene	97%	101%	80-118%

(a) Outside control limits. Associated samples are non-detect for this compound.

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M51079-8MS	G53332.D	5	10/04/05	AA	n/a	n/a	MSG2127
M51079-8MSD	G53333.D	5	10/04/05	AA	n/a	n/a	MSG2127
M51079-8	G53325.D	1	10/04/05	AA	n/a	n/a	MSG2127

The QC reported here applies to the following samples:

Method: SW846 8260B

M51179-1A

CAS No.	Compound	M51079-8 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
994-05-8	tert-Amyl Methyl Ether	ND	250	298	119	293	117	2	54-144/20
75-65-0	Tert Butyl Alcohol	ND	2500	2820	113	2780	111	1	31-170/29

CAS No.	Surrogate Recoveries	MS	MSD	M51079-8	Limits
1868-53-7	Dibromofluoromethane	115%	113%	112%	82-127%
2037-26-5	Toluene-D8	101%	101%	101%	88-112%
460-00-4	4-Bromofluorobenzene	99%	100%	101%	80-118%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
M51120-8MS	N4335.D	5	10/06/05	ZW	n/a	n/a	MSN154
M51120-8MSD	N4336.D	5	10/07/05	ZW	n/a	n/a	MSN154
M51120-8	N4373.D	1	10/07/05	ZW	n/a	n/a	MSN154

The QC reported here applies to the following samples:

Method: SW846 8260B

M51179-1

CAS No.	Compound	M51120-8 ug/l	Spike Q	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND	250	154	62	152	61	1	30-150/35
71-43-2	Benzene	ND	250	248	99	234	94	6	67-132/20
56-23-5	Carbon tetrachloride	ND	250	400	160* a	378	151* a	6	63-144/20
95-50-1	1,2-Dichlorobenzene	ND	250	244	98	223	89	9	75-123/20
541-73-1	1,3-Dichlorobenzene	ND	250	234	94	209	84	11	75-122/20
106-46-7	1,4-Dichlorobenzene	ND	250	233	93	209	84	11	77-125/20
75-34-3	1,1-Dichloroethane	ND	250	262	105	247	99	6	66-141/20
107-06-2	1,2-Dichloroethane	ND	250	390	156* b	334	133	15	61-144/20
75-35-4	1,1-Dichloroethene	ND	250	238	95	209	84	13	57-150/20
156-59-2	cis-1,2-Dichloroethene	ND	250	268	107	252	101	6	69-133/20
123-91-1	1,4-Dioxane	ND	1250	1170	94	1090	87	7	43-141/32
100-41-4	Ethylbenzene	ND	250	217	87	229	92	5	72-129/20
1634-04-4	Methyl Tert Butyl Ether	ND	250	294	118	278	111	6	61-137/20
75-09-2	Methylene chloride	ND	250	271	108	243	97	11	64-143/20
127-18-4	Tetrachloroethene	ND	250	203	81	197	79	3	57-145/20
108-88-3	Toluene	ND	250	238	95	228	91	4	69-129/20
71-55-6	1,1,1-Trichloroethane	0.60	250	333	133	281	112	17	65-144/20
79-00-5	1,1,2-Trichloroethane	ND	250	293	117	265	106	10	63-138/20
79-01-6	Trichloroethene	8.9	250	265	100	251	95	5	67-132/20
75-01-4	Vinyl chloride	ND	250	259	104	277	111	7	39-150/23
1330-20-7	Xylene (total)	ND	750	679	91	688	92	1	72-133/20

CAS No.	Surrogate Recoveries	MS	MSD	M51120-8	Limits
1868-53-7	Dibromofluoromethane	116%	115%	115%	82-127%
2037-26-5	Toluene-D8	107%	106%	109%	88-112%
460-00-4	4-Bromofluorobenzene	110%	104%	112%	80-118%

(a) Outside control limits. Associated samples are non-detect for this compound.

(b) Outside control limits due to possible matrix interference. Refer to Blank Spike.

Volatile Surrogate Recovery Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Method: SW846 8260B

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
M51179-1	N4322.D	114.0	106.0	109.0
M51179-1A	G53341.D	115.0	102.0	101.0
M51079-8MS	G53332.D	115.0	101.0	99.0
M51079-8MSD	G53333.D	113.0	101.0	100.0
M51120-8MS	N4335.D	116.0	107.0	110.0
M51120-8MSD	N4336.D	115.0	106.0	104.0
MSG2127-BS	G53321.D	101.0	100.0	98.0
MSG2127-MB	G53324.D	107.0	101.0	101.0
MSN154-BS	N4316.D	110.0	106.0	97.0
MSN154-BSD	N4317.D	110.0	104.0	101.0
MSN154-MB	N4319.D	114.0	105.0	112.0

Surrogate
Compounds

Recovery
Limits

S1 = Dibromofluoromethane

82-127%

S2 = Toluene-D8

88-112%

S3 = 4-Bromofluorobenzene

80-118%

4.5

4

GC/MS Semi-volatiles

5

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9725-MB	E24561.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285

The QC reported here applies to the following samples:

Method: SW846 8270C

M51179-1

CAS No.	Compound	Result	RL	Units	Q
95-57-8	2-Chlorophenol	ND	5.0	ug/l	
59-50-7	4-Chloro-3-methyl phenol	ND	5.0	ug/l	
120-83-2	2,4-Dichlorophenol	ND	5.0	ug/l	
105-67-9	2,4-Dimethylphenol	ND	5.0	ug/l	
51-28-5	2,4-Dinitrophenol	ND	20	ug/l	
534-52-1	4,6-Dinitro-o-cresol	ND	5.0	ug/l	
88-75-5	2-Nitrophenol	ND	5.0	ug/l	
100-02-7	4-Nitrophenol	ND	5.0	ug/l	
108-95-2	Phenol	ND	5.0	ug/l	
88-06-2	2,4,6-Trichlorophenol	ND	5.0	ug/l	
85-68-7	Butyl benzyl phthalate	ND	10	ug/l	
84-74-2	Di-n-butyl phthalate	ND	5.0	ug/l	
117-84-0	Di-n-octyl phthalate	ND	5.0	ug/l	
84-66-2	Diethyl phthalate	ND	5.0	ug/l	
131-11-3	Dimethyl phthalate	ND	5.0	ug/l	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	5.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	45% 10-120%
4165-62-2	Phenol-d5	31% 10-120%
118-79-6	2,4,6-Tribromophenol	82% 31-123%
4165-60-0	Nitrobenzene-d5	65% 32-120%
321-60-8	2-Fluorobiphenyl	69% 32-120%
1718-51-0	Terphenyl-d14	77% 33-123%

Method Blank Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9727-MB	F16108.D	1	10/04/05	PB	09/29/05	OP9727	MSF879

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

M51179-1B

CAS No.	Compound	Result	RL	Units	Q
87-86-5	Pentachlorophenol	ND	1.0	ug/l	
95-95-4	2,4,5-Trichlorophenol	ND	1.0	ug/l	
83-32-9	Acenaphthene	ND	0.10	ug/l	
208-96-8	Acenaphthylene	ND	0.10	ug/l	
120-12-7	Anthracene	ND	0.10	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.050	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	ug/l	
218-01-9	Chrysene	ND	0.10	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	ug/l	
206-44-0	Fluoranthene	ND	0.10	ug/l	
86-73-7	Fluorene	ND	0.10	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.20	ug/l	
91-20-3	Naphthalene	ND	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.10	ug/l	
129-00-0	Pyrene	ND	0.10	ug/l	

CAS No.	Surrogate Recoveries	Limits
367-12-4	2-Fluorophenol	47% 10-120%
4165-62-2	Phenol-d5	32% 10-120%
118-79-6	2,4,6-Tribromophenol	83% 23-135%
4165-60-0	Nitrobenzene-d5	58% 30-120%
321-60-8	2-Fluorobiphenyl	70% 25-120%
1718-51-0	Terphenyl-d14	74% 24-132%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9725-BS	E24562.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285
OP9725-BSD	E24563.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285

The QC reported here applies to the following samples:

Method: SW846 8270C

M51179-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	100	73.0	73	76.8	77	5	50-120/20
59-50-7	4-Chloro-3-methyl phenol	100	71.3	71	78.3	78	9	56-120/20
120-83-2	2,4-Dichlorophenol	100	77.0	77	88.0	88	13	56-120/20
105-67-9	2,4-Dimethylphenol	100	72.6	73	68.7	69	6	37-120/20
51-28-5	2,4-Dinitrophenol	100	56.3	56	66.6	67	17	27-120/20
534-52-1	4,6-Dinitro-o-cresol	100	78.1	78	91.5	92	16	36-125/20
88-75-5	2-Nitrophenol	100	74.6	75	77.5	78	4	54-120/20
100-02-7	4-Nitrophenol	100	43.3	43	46.2	46	6	7-120/20
108-95-2	Phenol	100	39.6	40	38.1	38	4	17-120/20
88-06-2	2,4,6-Trichlorophenol	100	77.9	78	90.2	90	15	53-120/20
85-68-7	Butyl benzyl phthalate	50	36.3	73	36.9	74	2	27-120/20
84-74-2	Di-n-butyl phthalate	50	41.6	83	41.6	83	0	47-120/20
117-84-0	Di-n-octyl phthalate	50	38.5	77	39.4	79	2	60-123/20
84-66-2	Diethyl phthalate	50	33.1	66	32.2	64	3	8-120/20
131-11-3	Dimethyl phthalate	50	18.4	37	17.6	35	4	1-120/20
117-81-7	bis(2-Ethylhexyl)phthalate	50	41.1	82	42.0	84	2	61-120/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	54%	59%	10-120%
4165-62-2	Phenol-d5	39%	40%	10-120%
118-79-6	2,4,6-Tribromophenol	92%	99%	31-123%
4165-60-0	Nitrobenzene-d5	74%	78%	32-120%
321-60-8	2-Fluorobiphenyl	86%	83%	32-120%
1718-51-0	Terphenyl-d14	87%	89%	33-123%

Blank Spike/Blank Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9727-BS	F16109.D	1	10/04/05	PB	09/29/05	OP9727	MSF879
OP9727-BSD	F16110.D	1	10/04/05	PB	09/29/05	OP9727	MSF879

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

M51179-1B

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
87-86-5	Pentachlorophenol	100	75.5	76	86.7	87	14	53-111/30
95-95-4	2,4,5-Trichlorophenol	100	76.3	76	84.7	85	10	53-120/30
83-32-9	Acenaphthene	50	37.5	75	38.9	78	4	47-120/30
208-96-8	Acenaphthylene	50	31.3	63	32.4	65	3	49-120/30
120-12-7	Anthracene	50	42.6	85	44.5	89	4	55-120/30
56-55-3	Benzo(a)anthracene	50	45.6	91	47.0	94	3	50-129/30
50-32-8	Benzo(a)pyrene	50	40.8	82	42.3	85	4	57-120/30
205-99-2	Benzo(b)fluoranthene	50	37.4	75	40.7	81	8	62-120/30
191-24-2	Benzo(g,h,i)perylene	50	40.9	82	42.2	84	3	57-127/30
207-08-9	Benzo(k)fluoranthene	50	40.1	80	39.3	79	2	51-120/30
218-01-9	Chrysene	50	48.5	97	50.0	100	3	54-120/30
53-70-3	Dibenzo(a,h)anthracene	50	49.0	98	51.1	102	4	45-144/30
206-44-0	Fluoranthene	50	43.5	87	45.7	91	5	51-121/30
86-73-7	Fluorene	50	38.1	76	39.2	78	3	56-120/30
193-39-5	Indeno(1,2,3-cd)pyrene	50	41.8	84	43.5	87	4	54-121/30
91-57-6	2-Methylnaphthalene	50	33.4	67	35.1	70	5	40-120/30
91-20-3	Naphthalene	50	32.5	65	34.6	69	6	37-120/30
85-01-8	Phenanthrene	50	41.1	82	42.8	86	4	51-120/30
129-00-0	Pyrene	50	40.8	82	41.3	83	1	45-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
367-12-4	2-Fluorophenol	52%	61%	10-120%
4165-62-2	Phenol-d5	38%	44%	10-120%
118-79-6	2,4,6-Tribromophenol	82%	94%	23-135%
4165-60-0	Nitrobenzene-d5	67%	71%	30-120%
321-60-8	2-Fluorobiphenyl	77%	80%	25-120%
1718-51-0	Terphenyl-d14	79%	81%	24-132%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9725-MS	E24564.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285
OP9725-MSD	E24565.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285
M51224-1	E24566.D	1	10/04/05	PB	09/29/05	OP9725	MSE1285

The QC reported here applies to the following samples:

Method: SW846 8270C

M51179-1

CAS No.	Compound	M51224-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
95-57-8	2-Chlorophenol	ND	100	75.0	75	75.7	76	1	43-120/24	
59-50-7	4-Chloro-3-methyl phenol	ND	100	76.3	76	76.9	77	1	52-120/20	
120-83-2	2,4-Dichlorophenol	ND	100	86.1	86	79.9	80	7	49-120/23	
105-67-9	2,4-Dimethylphenol	ND	100	53.8	54	50.1	50	7	1-120/33	
51-28-5	2,4-Dinitrophenol	ND	100	68.9	69	68.5	69	1	29-124/50	
534-52-1	4,6-Dinitro-o-cresol	ND	100	86.4	86	89.1	89	3	41-126/37	
88-75-5	2-Nitrophenol	ND	100	73.5	74	84.6	85	14	48-120/31	
100-02-7	4-Nitrophenol	ND	100	47.9	48	48.1	48	0	7-120/22	
108-95-2	Phenol	ND	100	38.7	39	40.7	41	5	13-120/25	
88-06-2	2,4,6-Trichlorophenol	ND	100	86.0	86	83.6	84	3	44-120/26	
85-68-7	Butyl benzyl phthalate	ND	50	33.8	68	34.9	70	3	28-120/29	
84-74-2	Di-n-butyl phthalate	ND	50	40.9	82	41.7	83	2	46-120/25	
117-84-0	Di-n-octyl phthalate	ND	50	40.0	80	39.8	80	1	57-124/26	
84-66-2	Diethyl phthalate	ND	50	32.5	65	33.1	66	2	12-120/39	
131-11-3	Dimethyl phthalate	ND	50	17.5	35	18.9	38	8	1-120/50	
117-81-7	bis(2-Ethylhexyl)phthalate	ND	50	41.0	82	42.1	84	3	53-125/25	

CAS No.	Surrogate Recoveries	MS	MSD	M51224-1	Limits
367-12-4	2-Fluorophenol	59%	59%	48%	10-120%
4165-62-2	Phenol-d5	39%	43%	29%	10-120%
118-79-6	2,4,6-Tribromophenol	98%	96%	86%	31-123%
4165-60-0	Nitrobenzene-d5	75%	79%	71%	32-120%
321-60-8	2-Fluorobiphenyl	85%	91%	80%	32-120%
1718-51-0	Terphenyl-d14	88%	89%	85%	33-123%

Matrix Spike/Matrix Spike Duplicate Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP9727-MS	F16111.D	1	10/04/05	PB	09/29/05	OP9727	MSF879
OP9727-MSD	F16112.D	1	10/04/05	PB	09/29/05	OP9727	MSF879
M51357-1	F16113.D	1	10/04/05	PB	09/29/05	OP9727	MSF879

The QC reported here applies to the following samples:

Method: SW846 8270C BY SIM

M51179-1B

CAS No.	Compound	M51357-1 ug/l	Spike Q	ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
87-86-5	Pentachlorophenol	ND	100		80.5	81	80.1	80	0	5-137/52
95-95-4	2,4,5-Trichlorophenol	ND	100		83.9	84	81.4	81	3	40-120/26
83-32-9	Acenaphthene	ND	50		40.9	82	41.9	84	2	49-120/20
208-96-8	Acenaphthylene	ND	50		33.2	66	34.0	68	2	50-120/22
120-12-7	Anthracene	ND	50		44.8	90	44.4	89	1	58-120/20
56-55-3	Benzo(a)anthracene	ND	50		46.0	92	45.9	92	0	50-132/20
50-32-8	Benzo(a)pyrene	ND	50		41.6	83	41.6	83	0	51-120/22
205-99-2	Benzo(b)fluoranthene	ND	50		38.2	76	40.2	80	5	67-120/20
191-24-2	Benzo(g,h,i)perylene	ND	50		41.7	83	41.9	84	0	63-121/20
207-08-9	Benzo(k)fluoranthene	ND	50		41.1	82	38.7	77	6	54-120/25
218-01-9	Chrysene	ND	50		49.3	99	49.5	99	0	59-120/20
53-70-3	Dibenzo(a,h)anthracene	ND	50		47.9	96	50.3	101	5	46-146/20
206-44-0	Fluoranthene	ND	50		45.1	90	45.5	91	1	58-120/20
86-73-7	Fluorene	ND	50		39.7	79	40.3	81	1	62-120/20
193-39-5	Indeno(1,2,3-cd)pyrene	ND	50		42.6	85	42.9	86	1	52-124/20
91-57-6	2-Methylnaphthalene	ND	50		37.5	75	38.4	77	2	44-120/20
91-20-3	Naphthalene	ND	50		36.3	73	37.3	75	3	41-120/20
85-01-8	Phenanthrene	ND	50		43.4	87	43.9	88	1	51-120/21
129-00-0	Pyrene	ND	50		40.7	81	40.8	82	0	48-121/20

CAS No.	Surrogate Recoveries	MS	MSD	M51357-1	Limits
367-12-4	2-Fluorophenol	60%	57%	45%	10-120%
4165-62-2	Phenol-d5	43%	42%	27%	10-120%
118-79-6	2,4,6-Tribromophenol	94%	91%	79%	23-135%
4165-60-0	Nitrobenzene-d5	70%	71%	60%	30-120%
321-60-8	2-Fluorobiphenyl	80%	81%	86%	25-120%
1718-51-0	Terphenyl-d14	80%	78%	80%	24-132%

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Method: SW846 8270C

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M51179-1	E24570.D	47.0	34.0	80.0	68.0	69.0	69.0
OP9725-BS	E24562.D	54.0	39.0	92.0	74.0	86.0	87.0
OP9725-BSD	E24563.D	59.0	40.0	99.0	78.0	83.0	89.0
OP9725-MB	E24561.D	45.0	31.0	82.0	65.0	69.0	77.0
OP9725-MS	E24564.D	59.0	39.0	98.0	75.0	85.0	88.0
OP9725-MSD	E24565.D	59.0	43.0	96.0	79.0	91.0	89.0

Surrogate
Compounds

Recovery
Limits

S1 = 2-Fluorophenol	10-120%
S2 = Phenol-d5	10-120%
S3 = 2,4,6-Tribromophenol	31-123%
S4 = Nitrobenzene-d5	32-120%
S5 = 2-Fluorobiphenyl	32-120%
S6 = Terphenyl-d14	33-123%

5.4

5

Semivolatile Surrogate Recovery Summary

Page 1 of 1

Job Number: M51179

Account: SHELLWIC Shell Oil

Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Method: SW846 8270C BY SIM

Matrix: AQ

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3	S4	S5	S6
M51179-1B	F16118.D	46.0	32.0	73.0	59.0	68.0	62.0
OP9727-BS	F16109.D	52.0	38.0	82.0	67.0	77.0	79.0
OP9727-BSD	F16110.D	61.0	44.0	94.0	71.0	80.0	81.0
OP9727-MB	F16108.D	47.0	32.0	83.0	58.0	70.0	74.0
OP9727-MS	F16111.D	60.0	43.0	94.0	70.0	80.0	80.0
OP9727-MSD	F16112.D	57.0	42.0	91.0	71.0	81.0	78.0

Surrogate
Compounds

Recovery
Limits

S1 = 2-Fluorophenol	10-120%
S2 = Phenol-d5	10-120%
S3 = 2,4,6-Tribromophenol	23-135%
S4 = Nitrobenzene-d5	30-120%
S5 = 2-Fluorobiphenyl	25-120%
S6 = Terphenyl-d14	24-132%

5.4

5

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: M51179
Account: SHELLWIC - Shell Oil
Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

QC Batch ID: MP7699
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/03/05

Metal	RL	IDL	MB raw	final
Aluminum	200	14		
Antimony	6.0	1.6	anr	
Arsenic	5.0	2.3	-2.2	<5.0
Barium	200	1.7	anr	
Beryllium	4.0	.18		
Boron	100	1.2		
Cadmium	4.0	.31	anr	
Calcium	5000	4.7		
Chromium	10	.53	anr	
Cobalt	50	.47		
Copper	25	2.8	anr	
Iron	100	14	anr	
Lead	5.0	1.9	anr	
Magnesium	5000	5.3		
Manganese	15	.17	anr	
Molybdenum	100	.92		
Nickel	40	.65	anr	
Potassium	5000	31		
Selenium	10	2.7	anr	
Silver	5.0	.53	anr	
Sodium	5000	110		
Strontium	10	.22		
Thallium	10	2.9		
Tin	100	9.4		
Titanium	50	1.3		
Vanadium	50	2.4		
Zinc	20	1.2	anr	

Associated samples MP7699: M51179-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.1.1

6

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: M51179
 Account: SHELLWIC - Shell Oil
 Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

QC Batch ID: MP7699
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date:

10/03/05

10/03/05

Metal	M51172-1 Original MS	Spike lot MPIRWS2	% Rec	QC Limits	M51172-1 Original DUP	RPD	QC Limits
Aluminum							
Antimony	anr						
Arsenic	30.8	532	500	100.2	75-125	30.8	32.8
Barium	anr					6.3	0-20
Beryllium							
Boron							
Cadmium	anr						
Calcium							
Chromium	anr						
Cobalt							
Copper	anr						
Iron	anr						
Lead	anr						
Magnesium							
Manganese	anr						
Molybdenum							
Nickel	anr						
Potassium							
Selenium	anr						
Silver	anr						
Sodium							
Strontium							
Thallium							
Tin							
Titanium							
Vanadium							
Zinc	anr						

Associated samples MP7699: M51179-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: M51179
Account: SHELLWIC - Shell Oil
Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

QC Batch ID: MP7699
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 10/03/05

Metal	BSP Result	Spike lot MPIRWS2	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	493	500	98.6	80-120
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP7699: M51179-1

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

6.13
6

SERIAL DILUTION RESULTS SUMMARY

Login Number: M51179
 Account: SHELLWIC - Shell Oil
 Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

QC Batch ID: MP7699
 Matrix Type: AQUEOUS

Methods: SW846 6010B
 Units: ug/l

Prep Date: 10/03/05

Metal	M51172-1 Original	SDL 1:5	RPD	QC Limits
Aluminum				
Antimony	anr			
Arsenic	30.8	17.0	44.9 (a)	0-10
Barium	anr			
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Magnesium				
Manganese	anr			
Molybdenum				
Nickel	anr			
Potassium				
Selenium	anr			
Silver	anr			
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP7699: M51179-1

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

6.1.4
6

General Chemistry

QC Data Summaries

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

7

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: M51179
Account: SHELLWIC - Shell Oil
Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Cyanide	GP6011/GN17989	0.010	<0.010	mg/l	0.1	0.102	102.0	90-110%
Cyanide	GP6011/GN17989			mg/l	0.2	0.206	103.0	90-110%

Associated Samples:
Batch GP6011: M51179-1

7.1

7

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: M51179
Account: SHELLWIC - Shell Oil
Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Cyanide	GP6011/GN17989	M51100-2	mg/l	<0.010	<0.010	0.0	0-20%

Associated Samples:
Batch GP6011: M51179-1

7.2

7

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: M51179
Account: SHELLWIC - Shell Oil
Project: ENVTRAC:98997864 (REIMBMA) 130 Central St., Stoughton, MA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Cyanide	GP6011/GN17989	M51100-2	mg/l	<0.010	0.1	0.10	100.0	75-125%

Associated Samples:
Batch GP6011: M51179-1

7.3

7