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WHERE BUSINESS AND THE ENVIRONMENT CONVERGE
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8/5/09 received
MA6-910429

Mr. Victor Alvarez
United States Environmental
Protection Agency, Region 1
RPG-NOC Processing
1 Congress Street, Suite 1100
Boston, MA 02114-2023

August 4, 2009
Project No. 91-010824.04
Document No. 38012

RE: Pride Convenience, Inc.
1730 Longmeadow Street
Longmeadow, Massachusetts
MassDEP RTN 1-00770

Dear Mr. Alvarez:

Environmental Compliance Services, Inc. (ECS) is pleased to provide supporting documentation for the Notice of Intent (NOI) for the Remediation General Permit (RGP) on behalf of Pride Convenience, Inc. (Pride). This NOI is submitted in order to obtain a permit for the operation of a groundwater recovery and treatment system (GWTS) to be located at 1730 Longmeadow Street, Longmeadow, Massachusetts (the Site). The GWTS will be operated during construction activities at the Site in order to allow for the removal of petroleum-impacted soil, collection of soil samples, and upgrade of the underground storage tank (UST) system. A Site Locus is provided as Figure 1. A copy of the NOI form is provided as Attachment I.

System Design

A proposed schematic is attached. The groundwater treatment system located on the Site will be composed of submersible pneumatic pumps that collect groundwater from the excavation area. Recovered groundwater will be pumped to a frac tank and subsequently through two liquid phase granular activated carbon units (plumbed in series) prior to discharge to the Town of Longmeadow storm water line located in South Avenue. The storm water line outfalls to a wetland area located west of the Site.

A Site plan detailing the location of the groundwater treatment system, the catch basin for the storm water line, and the planned excavation area is provided as Figure 2. A line diagram of the groundwater treatment system is provided as Figure 3. The outfall location of the storm water line and surface water bodies adjacent to the outfall location are indicated on the Site Locus, Figure 1.

Average flow rate of discharge of treated groundwater from the system to the storm water line is expected to be approximately 5 gallons per minute (gpm). The design capacity of the groundwater treatment system is 75 gpm based upon a design capacity of each of the three proposed submersible pumps of 25 gpm. As a conservative estimate, a maximum flow capacity for the groundwater treatment system was estimated at 75 gpm.

Influent Sample Analysis

A groundwater sample was collected at monitoring well ECS-3, located in the area of planned excavation, on July 17, 2009. The sample was submitted to Spectrum Analytical, Inc. of Agawam, Massachusetts under standard chain of custody protocol for analysis of semivolatile organic compounds (SVOCs) by USEPA Method 625, volatile organic compounds (VOCs) by USEPA Method 8260B, polychlorinated biphenyls (PCBs) by USEPA Method 608, total petroleum hydrocarbons (TPH) by USEPA Method 1664, ethylene dibromide (EDB) by USEPA Method 504.1, total metals (silver, arsenic, cadmium, chromium, copper, iron, nickel, lead, antimony, selenium, and zinc) by USEPA Method 200.7, mercury by USEPA Method 245.1/7470A, cyanide by USEPA Method 9012A, total residual chloride by Hach 8167, and total suspended solids by SM2540D. A copy of the laboratory report and chain of custody record are provided as Attachment II.

Methyl tert butyl ether (MtBE), tert-amyl methylether (TAME), tert-butyl alcohol (TBA), and total suspended solids (TSS) were also detected in the sample collected at ECS-3 on July 17, 2009. Comparison of the concentrations of these compounds to the Appendix III effluent limitations (http://www.epa.gov/region1/ npdes/remediation/Appendix-III.pdf, accessed August 4, 2009) indicates that the concentrations were below the effluent limitations.

Receiving Waters Information

The receiving water for the treated groundwater discharge is a wetland located approximately one mile west-northwest of the Site that discharges to Raspberry Brook. Raspberry Brook flows in a westerly direction and confluences with the Connecticut River at a point approximately three miles west-northwest of the Site.

ECS consulted the online United States Geological Survey (USGS) Streamstats program to determine the 7Q10 flow rate at the discharge location (http://ma.water.usgs.gov, accessed August 4, 2009). Data obtained from the online resource indicated that the calculated 7Q10 flow rate for this basin is 0.0253 cubic feet per second (cfs). A copy of the Streamstats map and ungauged site report is provided as Attachment III

Based upon an estimated maximum flow rate of the discharge from the groundwater treatment system of 75 gpm, the dilution factor was calculated as:

Equation 1: $DF = (Qd + Qs)/Qd$

Where:
DF = DilutionFactor
Qd = Maximum flow rate of the discharge in cfs
Qs = Receiving water 7Q10 flow (cfs), where,
7Q10 = The minimum flow (cfs) for 7 consecutive days with a recurrence interval of 10 years

Qd = 75 gpm x 0.00223 cfs/gpm = 0.1672 cfs

DF = (0.1672 + 0.0253)/(0.1672)
DF = 1.15

The concentrations of zinc and iron reported present in the untreated sample (48 and 438 micrograms per liter (µg/L), respectively) were compared to the column corresponding to a dilution factor of 1.15 (between 0 and 5) in Appendix IV table. The discharge limits listed in the Appendix IV table are 66.6 µg/L for zinc and 1,000 µg/L for iron. Therefore, zinc and iron should not be subject to permit limitations or monitoring requirements for this discharge.

Receiving Water Classification

ECS consulted the Massachusetts Department of Environmental Protection (MassDEP) Division of Water Pollution Control (http://www.mass.gov/dep/water/laws/tblfig.pdf) to determine the classification for the receiving waters. The list indicates that Raspberry Brook and section of the Connecticut River from the Holyoke Dam to the Connecticut state line in Longmeadow and Agawam are classified as Class B water due to warm water and combined sewer overflow. The category of Raspberry Brook is Category 3, "No Uses Assessed". A Total Maximum Daily Load (TMDL) is not listed for Raspberry Brook.

Evaluation of Threatened or Endangered Species or Critical Habitat Located within Receiving Waters

According to Massachusetts Geographic Information Systems (MassGIS) online maps for the Natural Heritage Endangered Species Program (NHESP) (2008), a Priority Habitat of Rare Species and an Estimated Habitat of Rare Wildlife are located within a ½-mile radius of the proposed discharge area. A copy of the NHESP Map is provided as Attachment IV. The area is designated as Priority Habitat (PH) 1337. Information regarding this Priority Habitat has been requested from the Massachusetts Division of Fisheries and Wildlife. According Appendix I and II of the RGP, there are no Areas of Critical Environmental Concern or Endangered Species known to exist within ½-mile of proposed discharge area.

Review of National Register of Historic Places

A listing of all Historic Places within the town of Longmeadow was obtained from the online database at www.nr.nps.gov/nrloc1.htm (accessed August 4, 2009). No historic places were located in close proximity to the discharge location.

Copies of this letter and supporting documentation have been forwarded to Mr. Baffour Kyei at the Western Regional Office of the MassDEP and to Mr. Thom Martens, Engineer at the Town of Longmeadow Department of Public Works. Should you have any questions or concerns regarding the contents of this letter or the NOI for the RGP, please do not hesitate to contact the undersigned at (413) 789-3530.

Sincerely,
ENVIRONMENTAL COMPLIANCE SERVICES, INC.

Lori A. McCarthy
Project Manager

Bruce E. Tease, Ph.D., PE, LSP
Senior Environmental Scientist

LAG/BET/dlm
Attachments

Cc: B. Kyei, MassDEP, WERO
T. Martens, Town of Longmeadow
R. Bolduc, Pride Convenience, Inc.

FIGURES

Environmental Compliance Services, Inc.
588 Silver Street
Agawam, MA 01001
Phone 413.789.3530 Fax 413.789.2776
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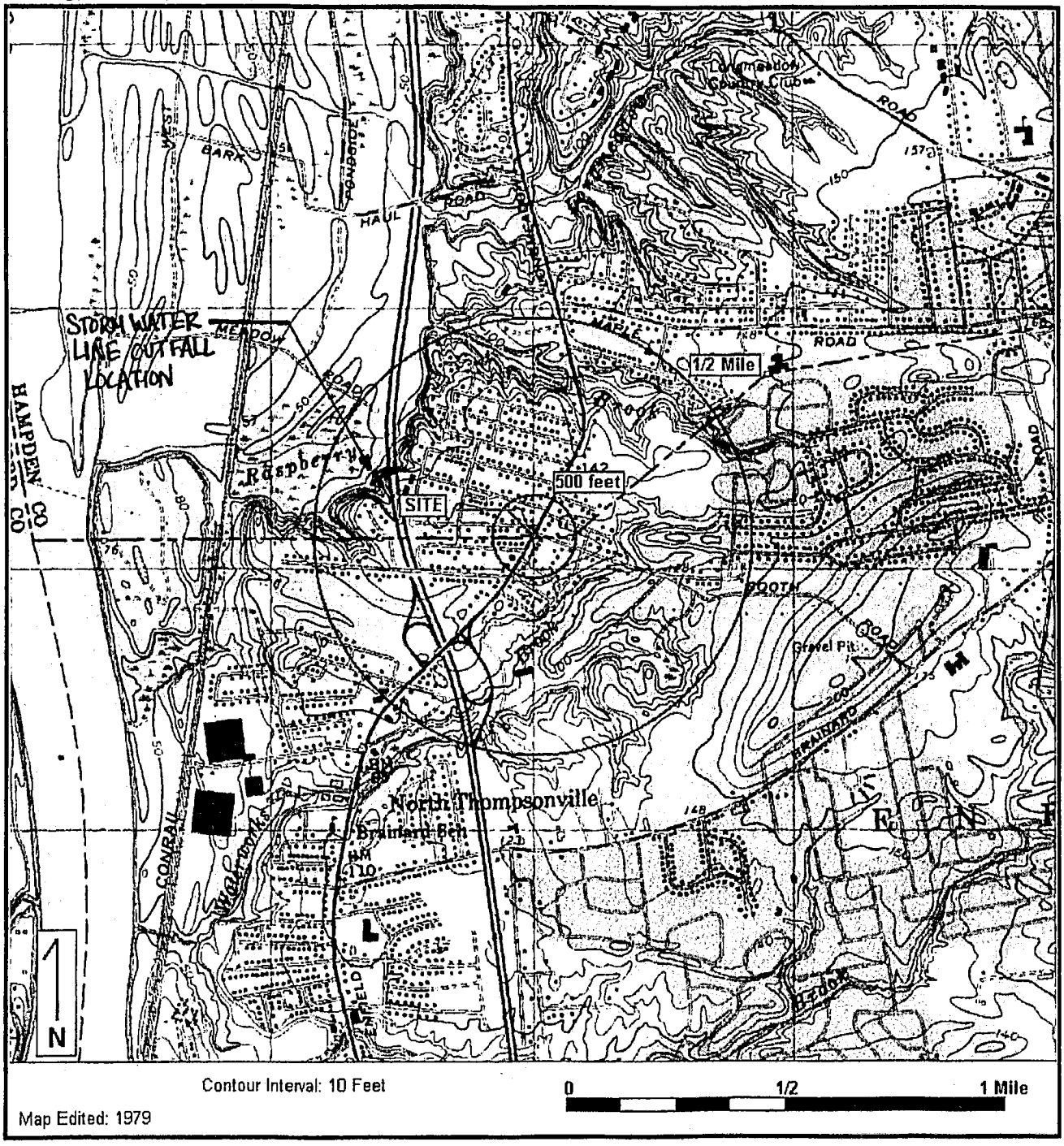
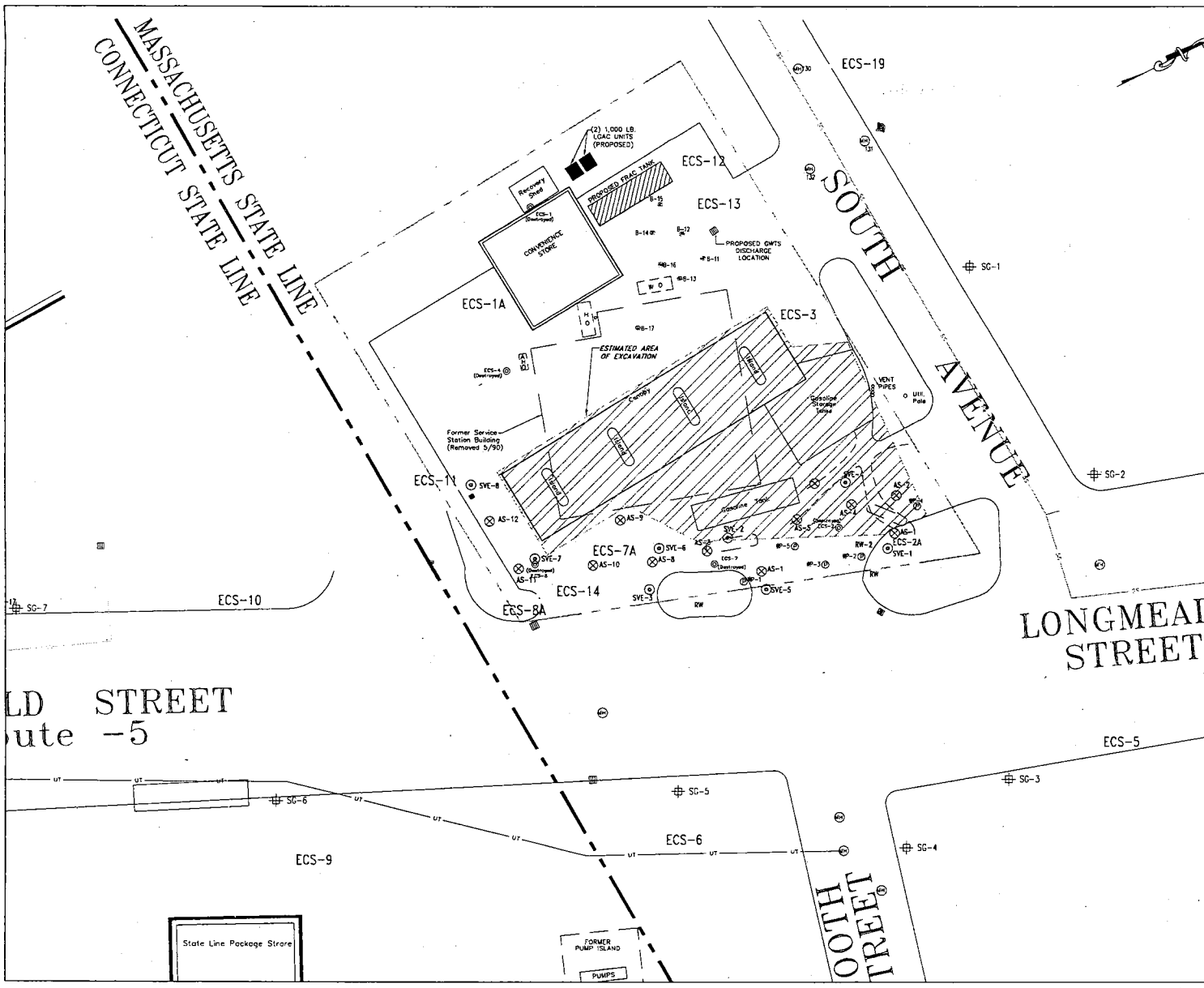
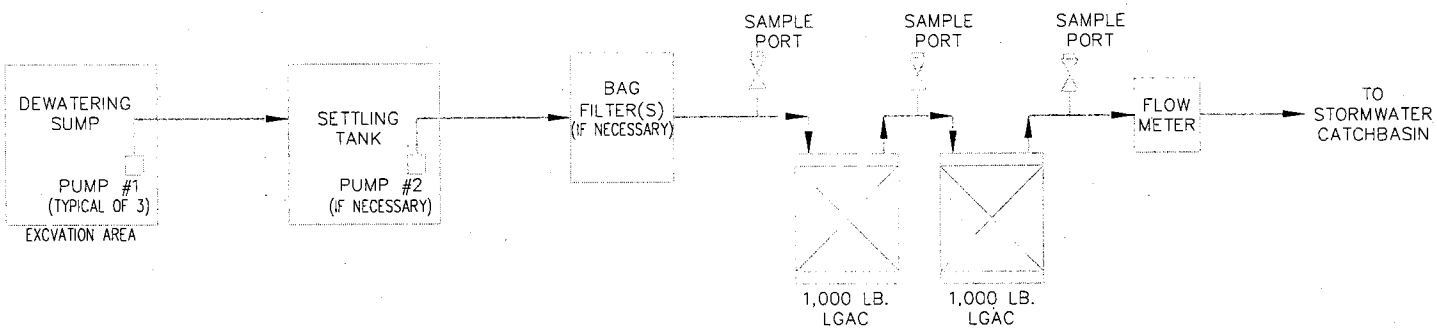
1730 Longmeadow Street, Longmeadow, MA
1730 Longmeadow Street
Longmeadow, MA 01106-2210

Figure 1: SITE LOCUS



Base Map: U.S. Geological Survey; Quadrangle Location: Springfiled South, CT
Lat/Lon: 42° 1' 29" NORTH, 72° 35' 1" WEST - UTM Coordinates: 18 700041 EAST / 4655355 NORTH
Generated By: Christine DiMaio


MASSACHUSETTS STATE LINE
CONNECTICUT STATE LINE
SOUTH AVENUE
LONGMEAD STREET
ECS-19
ECS-12
ECS-13
ECS-1A
ECS-3
ECS-1
ECS-7A
ECS-14
ECS-8A
ECS-10
ECS-9
ECS-6
ECS-5
SG-1
SG-2
SG-3
SG-4
SG-5
SG-6
SG-7
(2) 1,000 LB. CGAC UNITS (PROPOSED)
PROPOSED FRAC TANK
Recovery Shed
CONVENIENCE STORE
PROPOSED GWTS DISCHARGE LOCATION
ESTIMATED AREA OF EXCAVATION
Former Service Station Building (Removed 5/90)
Canopy
Island
Gasoline Storage Tanks
VENT PIPES
Util. Pole
RW
RW-2
SVE-1
SVE-2
SVE-3
SVE-5
SVE-6
SVE-7
SVE-8
AS-1
AS-2
AS-5
AS-8
AS-9
AS-10
AS-11
AS-12
ECS-2A
ECS-7
UT
State Line Package Store
FORMER PUMP ISLAND
PUMPS



GROUNDWATER TREATMENT SYSTEM

Notes:

Pump #2 will not be installed unless required.

Filters will not be installed unless necessary to meet permit requirements.

Discharge flow will be by gravity only unless a pump is required due to field conditions.

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588 Silver Street • Agawam, MA 01001
Phone: 1-800-789-3530 Fax: 413-789-2778
www.ecsconsult.com

CLIENT: Pride Convenience, Inc.

GRAPHIC SCALE: 0

PROJECT: Former State Line Mobil
1730 Longmeadow Street
Longmeadow, Massachusetts

Groundwater Treatment System

DRAWN BY:	DESIGNED BY:	CHECKED BY:	APPROVED BY:
RSW	LM	LM	LM
SCALE:	DATE:	JOB NO.:	FIGURE NO.:
N.T.S.	AUG. 2009	10824.40	3

ATTACHMENT I

NOI FOR THE RGP

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**: Pride Convenience, Inc.		**Facility/site** address:		
Location of **facility/site**: longitude: 72 35' 1" latitude: 42 1' 29"	Facility SIC code(s): 5541	Street: 1730 Longmeadow Street		
b) Name of **facility/site owner:** Pride Convenience, Inc.		Town: Longmeadow		
Email address of owner: tripride@comcast.net		State: MA	Zip: 01106-2210	County: Hampden
Telephone no.of facility/site **owner**: 413-737-9662				
Fax no. of facility/site **owner**: 413-731-5852		**Owner** is (check one): 1. Federal____ 2. State/Tribal____ 3. Private X____ 4. other, if so, describe:		
Address of **owner** (if different from site):				
Street: 246 Cottage Street				
Town: Springfield	State: MA	Zip: 01104-4004	County: Hampden	
c) Legal name of **operator**: Environmental Compliance Services, Inc.		**Operator** telephone no: 413-789-3530		
		Operator fax no.: 413-789-2776	**Operator** email: lmccarthy@ecsconsult.com nberube@ecsconsult.com	
Operator contact name and title: Lori McCarthy, Project Manager/ Nathan Berube, PE, Project Manager				
Address of **operator** (if different from owner):		Street: 588 Silver Street		
Town: Agawam	State: MA	Zip: 01001	County: Hampden	

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

1. Has a prior NPDES permit exclusion been granted for the discharge? Yes X No___, if "yes," number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge? Yes___ No___, if "yes," date and tracking #: Issued to Robert J. O'Connell Revocable Trusts 09/12/1991. No tracking number provided - see attached
3. Is the discharge a "new discharge"as defined by 40 CFR 122.2? Yes X No___
4. For sites in Massachusetts, is the discharge covered under the MA Contingency Plan (MCP) and exempt from state permitting? Yes X No__

e) Is site/facility subject to any State permitting or other action which is causing the generation of discharge? Yes X 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 EPA permit, including: 1. multi-sector storm water general permit? Y___ N___, if Y, number: 2. phase I or II construction storm water general permit? Y___ N___, if Y, number: 3. individual NPDES permit? Y___ N___, if Y, number: 4. any other water quality related permit? Y___ N___, if Y, number:

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

a) Describe the discharge activities for which the owner/applicant is seeking coverage:
Groundwater that is potentially impacted by gasoline will be pumped from an excavation pit in order to allow for collection of assessment samples and to facilitate the installation of a underground storage tank system.

b) Provide the following information about each discharge:	1) Number of discharge points:	2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft3/s)? Max. flow 0.16 ft3/s Average flow 0.05 ft3/s Is maximum flow a **design value**? Y___ N___ For average flow, include the units and appropriate notation if this value is a design value or estimate if not available.

3) Latitude and longitude of each discharge within 100 feet: pt.1:long. 72.5842 lat. 42.0252 ; pt.2: long. 72.5906 lat. 42.0265 ; pt.3: long._____ lat._____;
pt.4:long._____ lat._____; pt.5: long._____ lat._____; pt.6:long._____ lat._____; pt.7: long._____ lat._____; pt.8:long._____ lat._____; etc.

4) If hydrostatic testing, total volume of the discharge (gals):	5) Is the discharge intermittent X or seasonal_____? Is discharge ongoing Yes X No_____?

c) Expected dates of discharge (mm/dd/yy): start 08/10/2009 end 10/10/2009

d) Please attach a line drawing or flow schematic showing water flow through the facility including:
1. sources of intake water, 2. contributing flow from the operation, 3. treatment units, and 4. discharge points and receiving waters(s).

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

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

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

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

PARAMETER	**Believe Absent**	**Believe Present**	**# of Samples (1 min-imum)**	**Type of Sample (e.g., grab)**	**Analytical Method Used (method #)**	**Minimum Level (ML) of Test Method**	**Maximum daily value**		**Avg. daily value**	
							concentration (ug/l)	**mass (kg)**	**concentration (ug/l)**	**mass (kg)**
1. Total Suspended Solids		X	1	GRAB	SM2540D	5000	7000	NA	NA	NA
2. Total Residual Chlorine	X		1	GRAB	HACH 8167	200	ND	NA	NA	NA
3. Total Petroleum Hydrocarbons	X		1	GRAB	USEPA 1664	1000	ND	NA	NA	NA
4. Cyanide	X		1	GRAB	EPA 335.4	10	ND	NA	NA	NA
5. Benzene		X	1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
6. Toluene		X	1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
7. Ethylbenzene		X	1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
8. (m,p,o) Xylenes		X	1	GRAB	USEPA 8260B	2.0	ND	NA	NA	NA
9. Total BTEX[4]		X	1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
10. Ethylene Dibromide [5] (1,2- Dibromo-methane)	X		1	GRAB	USEPA 504.1	0.0100	ND	NA	NA	NA
11. Methyl-tert-Butyl Ether (MtBE)		X	1	GRAB	USEPA 8260B	1.0	37.8	NA	NA	NA
12. tert-Butyl Alcohol (TBA)		X	1	GRAB	USEPA 8260B	10.0	242	NA	NA	NA
13. tert-Amyl Methyl Ether (TAME)		X	1	GRAB	USEPA 8260B	1.0	13.7	NA	NA	NA
14. Naphthalene		X	1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
15. Carbon Tetra-chloride	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
16. 1,4 Dichlorobenzene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
17. 1,2 Dichlorobenzene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
18. 1,3 Dichlorobenzene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
19. 1,1 Dichloroethane	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
20. 1,2 Dichloroethane	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
21. 1,1 Dichloroethylene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
22. cis-1,2 Dichloro-ethylene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
23. Dichloromethane (Methylene Chloride)	X		1	GRAB	USEPA 8260B	5.0	ND	NA	NA	NA
24. Tetrachloroethylene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA

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

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily Value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
25. 1,1,1 Trichloroethane	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
26. 1,1,2 Trichloroethane	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
27. Trichloroethylene	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
28. Vinyl Chloride	X		1	GRAB	USEPA 8260B	1.0	ND	NA	NA	NA
29. Acetone	X		1	GRAB	USEPA 8260B	10.0	ND	NA	NA	NA
30. 1,4 Dioxane	X		1	GRAB	USEPA 8260B	20.0	ND	NA	NA	NA
31. Total Phenols	X		1	GRAB	USEPA 625	10.0	ND	NA	NA	NA
32. Pentachlorophenol	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
33. Total Phthalates [6] (Phthalate esthers)	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
a. Benzo(a) Anthracene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
b. Benzo(a) Pyrene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
c. Benzo(b)Fluoranthene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
d. Benzo(k) Fluoranthene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
e. Chrysene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA

[6] The sum of individual phthalate compounds.

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Average daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
f. Dibenzo(a,h) anthracene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
g. Indeno(1,2,3-cd) Pyrene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
h. Acenaphthene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
i. Acenaphthylene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
j. Anthracene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
k. Benzo(ghi) Perylene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
l. Fluoranthene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
m. Fluorene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
n. Naphthalene-	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
o. Phenanthrene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
p. Pyrene	X		1	GRAB	USEPA 625	5.0	ND	NA	NA	NA
37. Total Polychlorinated Biphenyls (PCBs)	X		1	GRAB	USEPA 608	0.0650	ND	NA	NA	NA
38. Antimony	X		1	GRAB	USEPA 200.7	6.0	ND	NA	NA	NA
39. Arsenic	X		1	GRAB	USEPA 200.7	4.0	ND	NA	NA	NA
40. Cadmium	X		1	GRAB	USEPA 200.7	2.5	ND	NA	NA	NA
41. Chromium III	X		1	GRAB	USEPA 200.7	5.0	ND	NA	NA	NA
42. Chromium VI	X		1	GRAB	SW846 7196A	5.0	ND	NA	NA	NA

PARAMETER	Believe Absent	Believe Present	# of Samples (1 min-imum)	Type of Sample (e.g., grab)	Analytical Method Used (method #)	Minimum Level (ML) of Test Method	Maximum daily value		Avg. daily value	
							concentration (ug/l)	mass (kg)	concentration (ug/l)	mass (kg)
43. Copper	X		1	GRAB	USEPA 200.7	5.0	ND	NA	NA	NA
44. Lead	X		1	GRAB	USEPA 200.7	7.5	ND	NA	NA	NA
45. Mercury	X		1	GRAB	USEPA 7470	0.2	ND	NA	NA	NA
46. Nickel	X		1	GRAB	USEPA 200.7	5.0	ND	NA	NA	NA
47. Selenium	X		1	GRAB	USEPA 200.7	15.0	ND	NA	NA	NA
48. Silver	X		1	GRAB	USEPA 200.7	5.0	ND	NA	NA	NA
49. Zinc		X	1	GRAB	USEPA 200.7	5.0	48	NA	NA	NA
50. Iron		X	1	GRAB	USEPA 200.7	15.0	438	NA	NA	NA
Other (describe):										

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

Step 1: Do any of the metals in the influent have a **reasonable potential** to exceed the effluent limits in Appendix III (i.e., the limits set at zero to five dilutions)? Y____ N X__	If yes, which metals?
Step 2: For any metals which have **reasonable potential** to exceed the **Appendix III** limits, calculate the **dilution factor (DF)** using the formula in Part I.A.3.c) (step 2) of the NOI instructions or as determined by the State prior to the submission of this NOI. What is the dilution factor for applicable metals? Metals: zinc and iron DF: 1.15	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 X__ If "Yes," list which metals:

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:						
b) Identify each applicable treatment unit (check all that apply):	Frac. tank X	Air stripper	Oil/water separator	Equalization tanks	Bag filter X	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 5 gpm Maximum flow rate of treatment system 25 gpm Design flow rate of treatment system 75 gpm						
d) A description of chemical additives being used or planned to be used (attach MSDS sheets): None planned						

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

a) Identify the discharge pathway:	Direct_____	Within facility__	Storm drain X	River/brook____	Wetlands_____	Other (describe):
b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters: Discharge is to an onsite catch basin that connects to stormwater lines in South Avenue. These stormwater lines discharge to Raspberry Brook, which drains to the Connecticut River.						
c) Attach a detailed map(s) indicating the site location and location of the outfall to the receiving water: 1. For multiple discharges, number the discharges sequentially. 2. For indirect dischargers, indicate the location of the discharge to the indirect conveyance and the discharge to surface water The map should also include the location and distance to the nearest sanitary sewer as well as the locus of nearby sensitive receptors (based on USGS topographical mapping), such as surface waters, drinking water supplies, and wetland areas.						
d) Provide the state water quality classification of the receiving water Class B ,						
e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water 0.0253 cfs Please attach any calculation sheets used to support stream flow and dilution calculations.						
f) Is the receiving water a listed 303(d) water quality impaired or limited water? Yes____ No X If yes, for which pollutant(s)? Is there a TMDL? Yes____ No X If yes, for which pollutant(s)?						

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

a) Are any listed threatened or endangered species, or designated critical habitat, in proximity to the discharge? Yes____No X__
Has any consultation with the federal services been completed ? Yes___ No___ or is consultation underway? Yes X__ No____
What were the results of the consultation with the U.S. Fish and Wildlife Service and/or National Marine Fisheries Service (check one):
a "no jeopardy" opinion? _____or written concurrence____ on a finding that the discharges are not likely to adversely affect any endangered species or critical habitat?

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

7. Supplemental information. :

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

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

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

Facility/Site Name:

Operator signature:

Title:

Date:

S. Ball
1-0770

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION I
ENVIRONMENTAL SERVICES DIVISION
60 WESTVIEW STREET, LEXINGTON, MASSACHUSETTS 02173-3185

12 September 1991

Mr. Robert O'Connell
Revocable Trusts
37 South Avenue
Longmeadow, Massachusetts 01106

Re: Exclusion from NPDES Requirements
State Line Mobil
1730 Longmeadow Street
Longmeadow, Massachusetts 01106

Dear Mr. O'Connell:

Based upon information provided by Mr. Christopher Camerlin of Environmental Compliance Services (ECS), Inc., I grant you, pursuant to 40 CFR 122.3(d), an emergency exclusion from the requirement for a permit under the National Pollution Discharge Elimination System (NPDES), in order that a recovery and treatment system may begin operation in a timely fashion.

Subject to other controls that may be established by the State of Massachusetts, and the Town of Longmeadow, you are authorized to discharge approximately 7 gallons of treated water per minute from a treatment system consisting of groundwater depression leading through an air diffuser and sand filter to an activated carbon filtration system (sized appropriately for the anticipated flow) prior to discharge into a storm drainage system which leads to Raspberry Brook. The treatment system must be operated in accordance with the following conditions:

1. No discharge of oil, sufficient to cause a sheen (as defined in 40 CFR 110), occurs to the storm drainage system. Discharge of a sheen of oil, or gasoline, constitutes an oil spill and must be reported, immediately, to the National Response Center [(800) 424-8802].

2. Security provisions are maintained to assure that system failure, vandalism, or other incident will be addressed in a timely fashion, preventing the loss of oil or contaminated water to the storm drainage system.

to the storm drain must be performed, during the first week of operations, every other day. For the balance of the first month, sampling and analysis must be performed, at least, once per week. After the first month, sampling and analysis must be at least monthly. Analytical Reports, with quality control information, are to be reported to the DEP Regional Office and to this office by the 28th of the following month.

4. Any product recovery storage tank must be equipped with secondary containment sufficient for 110% of the tank's capacity. If the recovered product storage tank exceeds 660 gallons capacity, a Spill Prevention Control and Countermeasures (SPCC) Plan is be required for the facility, meeting the requirements of Title 40 Code of Federal Regulations Part 112 (Oil Pollution Prevention).

5. You, or your representative, provide 24 hours notice of system start-up.

This exclusion will be in effect, initially, for 4 Months. If, during the fourth month, any necessary changes to the system are made, and you apply for an NPDES Permit, the exclusion will continue until the Permit is issued. Permit application materials may be obtained from Ms Shelly Puleo of the Boston Office. Her number is (617) 565-3528.

Please note that if the State of Massachusetts, or Town of Longmeadow, set more stringent requirements, the more stringent requirements must be followed. If any questions should arise, please do not hesitate to contact me at (617) 860-4362.

Sincerely,

David W. Tordoff
On-Scene Coordinator
Emergency Response

cc: T. Landry USEPA
C. Hall MaDEP-DWPC
S. Ball MaDEP-DSHW
C. Camerlin ECS

ATTACHMENT II

LABORATORY REPORT AND CHAIN OF CUSTODY RECORD

Report Date:
21-Jul-09 17:17

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Environmental Compliance Services
588 Silver Street
Agawam, MA 01001
Attn: Lori McCarthy

Project: Pride - Longmeadow St. - Longmeadow, MA
Project 91-010824.04

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SA97889-01	ECS-3	Ground Water	17-Jul-09 09:45	17-Jul-09 11:15
SA97889-02	TB	Deionized Water	17-Jul-09 00:00	17-Jul-09 11:15

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met.

Massachusetts # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538
New Jersey # MA011/MA012
New York # 11393/11840
Pennsylvania # 68-04426/68-02924
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

Authorized by:

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

Technical Reviewer's Initial:

Spectrum Analytical holds certification in the State of Massachusetts for the analytes as indicated with an X in the "Cert." column within this report. Please note that the State of Massachusetts does not offer certification for all analytes.
Please note that this report contains 33 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supercedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report is available upon request. This report may not be reproduced, except in full, without written approval from Spectrum Analytical, Inc.

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NY-11840, FL-E87936 and NJ-MA012).

Please contact the Laboratory or Technical Director at 800-789-9115 with any questions regarding the data contained in this laboratory report.

CASE NARRATIVE:

The samples were received 4.8 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 2.0 degrees Celsius was used immediately upon receipt of the samples.

If a Matrix Spike (MS), Matrix Spike Duplicate (MSD) or Duplicate (DUP) was not requested on the Chain of Custody, method criteria may have been fulfilled with a source sample not of this Sample Delivery Group.

MADEP has published a list of analytical methods (CAM) which provides a series of recommended protocols for the acquisition, analysis and reporting of analytical data in support of MCP decisions. "Presumptive Certainty" can be established only for those methods published by the MADEP in the MCP CAM. The compounds and/or elements reported were specifically requested by the client on the Chain of Custody and in some cases may not include the full analyte list as defined in the method.

According to WSC-CAM 5/2004 Rev.4, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended 70%-130% recovery range, a range has been set based on historical control limits.

See below for any non-conformances and issues relating to quality control samples and/or sample analysis/matrix.

EPA 200.7

Duplicates:

9071291-DUP1 *Source: SA97889-01*

RPD out of acceptance range. The batch is accepted based upon LCS and/or LCSD recovery.

Zinc

EPA 608

Samples:

SA97889-01 *ECS-3*

The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.

4,4-DB-Octafluorobiphenyl (Sr) [2C]

EPA 625

Laboratory Control Samples:

9071274-BS1

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

Pyridine

Hach 8167

Samples:

SA97889-01 *ECS-3*

The Reporting Limit has been raised to account for matrix interference.

Total Residual Chlorine

SW846 8260B

SW846 8260B

Laboratory Control Samples:

9071419-BS1

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

2,2-Dichloropropane

9071419-BSD1

Analyte out of acceptance range in QC spike but no reportable concentration present in sample.

2,2-Dichloropropane

Samples:

S906818-CCV1

Analyte percent drift/percent difference is greater than 30%, data is accepted due to all CCC analytes passing within the 20% Drift/Difference criteria

2,2-Dichloropropane
Tert-amyl methyl ether
trans-1,3-Dichloropropene

This affected the following samples:

ECS-3

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
ECS-3 SA97889-01	91-010824.04	Ground Water	17-Jul-09 09:45	17-Jul-09

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0	1	SW846 8260B	21-Jul-09	21-Jul-09	9071419	
67-64-1	Acetone	BRL		µg/l	10.0	1	"	"	"	"	
107-13-1	Acrylonitrile	BRL		µg/l	0.5	1	"	"	"	"	
71-43-2	Benzene	BRL		µg/l	1.0	1	"	"	"	"	
108-86-1	Bromobenzene	BRL		µg/l	1.0	1	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	1.0	1	"	"	"	"	
75-27-4	Bromodichloromethane	BRL		µg/l	0.5	1	"	"	"	"	
75-25-2	Bromoform	BRL		µg/l	1.0	1	"	"	"	"	
74-83-9	Bromomethane	BRL		µg/l	2.0	1	"	"	"	"	
78-93-3	2-Butanone (MEK)	BRL		µg/l	10.0	1	"	"	"	"	
104-51-8	n-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
135-98-8	sec-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
98-06-6	tert-Butylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	5.0	1	"	"	"	"	
56-23-5	Carbon tetrachloride	BRL		µg/l	1.0	1	"	"	"	"	
108-90-7	Chlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-00-3	Chloroethane	BRL		µg/l	2.0	1	"	"	"	"	
67-66-3	Chloroform	BRL		µg/l	1.0	1	"	"	"	"	
74-87-3	Chloromethane	BRL		µg/l	2.0	1	"	"	"	"	
95-49-8	2-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	1.0	1	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0	1	"	"	"	"	
124-48-1	Dibromochloromethane	BRL		µg/l	0.5	1	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.5	1	"	"	"	"	
74-95-3	Dibromomethane	BRL		µg/l	1.0	1	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0	1	"	"	"	"	
75-34-3	1,1-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	
107-06-2	1,2-Dichloroethane	BRL		µg/l	1.0	1	"	"	"	"	
75-35-4	1,1-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	1.0	1	"	"	"	"	
78-87-5	1,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	
142-28-9	1,3-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	
594-20-7	2,2-Dichloropropane	BRL		µg/l	1.0	1	"	"	"	"	
563-58-6	1,1-Dichloropropene	BRL		µg/l	1.0	1	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	0.5	1	"	"	"	"	
100-41-4	Ethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
87-68-3	Hexachlorobutadiene	BRL		µg/l	0.5	1	"	"	"	"	
591-78-6	2-Hexanone (MBK)	BRL		µg/l	10.0	1	"	"	"	"	
98-82-8	Isopropylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	37.8		µg/l	1.0	1	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0	1	"	"	"	"	
75-09-2	Methylene chloride	BRL		µg/l	5.0	1	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
ECS-3	91-010824.04	Ground Water	17-Jul-09 09:45	17-Jul-09
SA97889-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
Volatile Organic Compounds											
Prepared by method SW846 5030 Water MS											
100-42-5	Styrene	BRL		µg/l	1.0	1	SW846 8260B	21-Jul-09	21-Jul-09	9071419	
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0	1	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5	1	"	"	"	"	
127-18-4	Tetrachloroethene	BRL		µg/l	1.0	1	"	"	"	"	
108-88-3	Toluene	BRL		µg/l	1.0	1	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	1.0	1	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	1.0	1	"	"	"	"	
79-01-6	Trichloroethene	BRL		µg/l	1.0	1	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0	1	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	1.0	1	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	1.0	1	"	"	"	"	
75-01-4	Vinyl chloride	BRL		µg/l	1.0	1	"	"	"	"	
179601-23-1	m,p-Xylene	BRL		µg/l	2.0	1	"	"	"	"	
95-47-6	o-Xylene	BRL		µg/l	1.0	1	"	"	"	"	
109-99-9	Tetrahydrofuran	BRL		µg/l	10.0	1	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	
994-05-8	Tert-amyl methyl ether	13.7		µg/l	1.0	1	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	1.0	1	"	"	"	"	
108-20-3	Di-isopropyl ether	BRL		µg/l	1.0	1	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	242		µg/l	10.0	1	"	"	"	"	
123-91-1	1,4-Dioxane	BRL		µg/l	20.0	1	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0	1	"	"	"	"	
64-17-5	Ethanol	BRL		µg/l	400	1	"	"	"	"	
Surrogate recoveries:											
460-00-4	*4-Bromofluorobenzene*	*90*		*70-130 %*			"	"	"	"	
2037-26-5	*Toluene-d8*	*100*		*70-130 %*			"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*98*		*70-130 %*			"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*94*		*70-130 %*			"	"	"	"	
VPH Aliphatic/Aromatic Carbon Ranges											
Prepared by method VPH - EPA 5030B											
	C5-C8 Aliphatic Hydrocarbons	BRL		mg/l	0.0750	1	MADEP VPH 5/2004 Rev. 1.1	20-Jul-09	20-Jul-09	9071308	
	C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250	1	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	BRL		mg/l	0.0250	1	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL		mg/l	0.0750	1	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250	1	"	"	"	"	
VPH Target Analytes											
Prepared by method VPH - EPA 5030B											
71-43-2	Benzene	BRL		µg/l	5.0	1	"	"	"	"	
100-41-4	Ethylbenzene	BRL		µg/l	5.0	1	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	36.5		µg/l	5.0	1	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/l	5.0	1	"	"	"	"	
108-88-3	Toluene	BRL		µg/l	5.0	1	"	"	"	"	
179601-23-1	m,p-Xylene	BRL		µg/l	10.0	1	"	"	"	"	
95-47-6	o-Xylene	BRL		µg/l	5.0	1	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
ECS-3 SA97889-01	91-010824.04	Ground Water	17-Jul-09 09:45	17-Jul-09

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
VPH Target Analytes											
Prepared by method VPH - EPA 5030B											
Surrogate recoveries:											
615-59-8	*2,5-Dibromotoluene (FID)*	*116*		*70-130 %*			MADEP VPH 5/2004 Rev. 1.1	20-Jul-09	20-Jul-09	9071308	
615-59-8	*2,5-Dibromotoluene (PID)*	*118*		*70-130 %*			"	"	"	"	
Microextractable Organic Compounds											
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100	1	EPA 504.1	20-Jul-09	20-Jul-09	9071294	
Semivolatile Organic Compounds by GCMS											
Semivolatile Organic Compounds by EPA 625											
Prepared by method SW846 3510C											
83-32-9	Acenaphthene	BRL		µg/l	5.00	1	EPA 625	20-Jul-09	21-Jul-09	9071274	
208-96-8	Acenaphthylene	BRL		µg/l	5.00	1	"	"	"	"	
62-53-3	Aniline	BRL		µg/l	5.00	1	"	"	"	"	
120-12-7	Anthracene	BRL		µg/l	5.00	1	"	"	"	"	
103-33-3	Azobenzene/Diphenyldiazine	BRL		µg/l	5.00	1	"	"	"	"	
92-87-5	Benzidine	BRL		µg/l	5.00	1	"	"	"	"	
56-55-3	Benzo (a) anthracene	BRL		µg/l	5.00	1	"	"	"	"	
50-32-8	Benzo (a) pyrene	BRL		µg/l	5.00	1	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	BRL		µg/l	5.00	1	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	BRL		µg/l	5.00	1	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	BRL		µg/l	5.00	1	"	"	"	"	
65-85-0	Benzoic acid	BRL		µg/l	5.00	1	"	"	"	"	
100-51-6	Benzyl alcohol	BRL		µg/l	5.00	1	"	"	"	"	
111-91-1	Bis(2-chloroethoxy)methane	BRL		µg/l	5.00	1	"	"	"	"	
111-44-4	Bis(2-chloroethyl)ether	BRL		µg/l	5.00	1	"	"	"	"	
108-60-1	Bis(2-chloroisopropyl)ether	BRL		µg/l	5.00	1	"	"	"	"	
117-81-7	Bis(2-ethylhexyl)phthalate	BRL		µg/l	5.00	1	"	"	"	"	
101-55-3	4-Bromophenyl phenyl ether	BRL		µg/l	5.00	1	"	"	"	"	
85-68-7	Butyl benzyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	
86-74-8	Carbazole	BRL		µg/l	5.00	1	"	"	"	"	
59-50-7	4-Chloro-3-methylphenol	BRL		µg/l	5.00	1	"	"	"	"	
106-47-8	4-Chloroaniline	BRL		µg/l	5.00	1	"	"	"	"	
91-58-7	2-Chloronaphthalene	BRL		µg/l	5.00	1	"	"	"	"	
95-57-8	2-Chlorophenol	BRL		µg/l	5.00	1	"	"	"	"	
7005-72-3	4-Chlorophenyl phenyl ether	BRL		µg/l	5.00	1	"	"	"	"	
218-01-9	Chrysene	BRL		µg/l	5.00	1	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	BRL		µg/l	5.00	1	"	"	"	"	
132-64-9	Dibenzofuran	BRL		µg/l	5.00	1	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	5.00	1	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	5.00	1	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	5.00	1	"	"	"	"	
91-94-1	3,3'-Dichlorobenzidine	BRL		µg/l	5.00	1	"	"	"	"	
120-83-2	2,4-Dichlorophenol	BRL		µg/l	5.00	1	"	"	"	"	
84-66-2	Diethyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	
131-11-3	Dimethyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	
105-67-9	2,4-Dimethylphenol	BRL		µg/l	5.00	1	"	"	"	"	
84-74-2	Di-n-butyl phthalate	BRL		µg/l	5.00	1	"	"	"	"	
534-52-1	4,6-Dinitro-2-methylphenol	BRL		µg/l	5.00	1	"	"	"	"	
51-28-5	2,4-Dinitrophenol	BRL		µg/l	5.00	1	"	"	"	"	
121-14-2	2,4-Dinitrotoluene	BRL		µg/l	5.00	1	"	"	"	"	
606-20-2	2,6-Dinitrotoluene	BRL		µg/l	5.00	1	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
ECS-3 SA97889-01	91-010824.04	Ground Water	17-Jul-09 09:45	17-Jul-09

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Semivolatile Organic Compounds by GCMS											
Semivolatile Organic Compounds by EPA 625											
Prepared by method SW846 3510C											
117-84-0	Di-n-octyl phthalate	BRL		µg/l	5.00	1	EPA 625	20-Jul-09	21-Jul-09	9071274	
206-44-0	Fluoranthene	BRL		µg/l	5.00	1	"	"	"	"	
86-73-7	Fluorene	BRL		µg/l	5.00	1	"	"	"	"	
118-74-1	Hexachlorobenzene	BRL		µg/l	5.00	1	"	"	"	"	
87-68-3	Hexachlorobutadiene	BRL		µg/l	5.00	1	"	"	"	"	
77-47-4	Hexachlorocyclopentadiene	BRL		µg/l	5.00	1	"	"	"	"	
67-72-1	Hexachloroethane	BRL		µg/l	5.00	1	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	BRL		µg/l	5.00	1	"	"	"	"	
78-59-1	Isophorone	BRL		µg/l	5.00	1	"	"	"	"	
91-57-6	2-Methylnaphthalene	BRL		µg/l	5.00	1	"	"	"	"	
95-48-7	2-Methylphenol	BRL		µg/l	5.00	1	"	"	"	"	
108-39-4, 106-44-5	3 & 4-Methylphenol	BRL		µg/l	10.0	1	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/l	5.00	1	"	"	"	"	
88-74-4	2-Nitroaniline	BRL		µg/l	5.00	1	"	"	"	"	
99-09-2	3-Nitroaniline	BRL		µg/l	5.00	1	"	"	"	"	
100-01-6	4-Nitroaniline	BRL		µg/l	5.00	1	"	"	"	"	
98-95-3	Nitrobenzene	BRL		µg/l	5.00	1	"	"	"	"	
88-75-5	2-Nitrophenol	BRL		µg/l	5.00	1	"	"	"	"	
100-02-7	4-Nitrophenol	BRL		µg/l	5.00	1	"	"	"	"	
62-75-9	N-Nitrosodimethylamine	BRL		µg/l	5.00	1	"	"	"	"	
621-64-7	N-Nitrosodi-n-propylamine	BRL		µg/l	5.00	1	"	"	"	"	
86-30-6	N-Nitrosodiphenylamine	BRL		µg/l	5.00	1	"	"	"	"	
87-86-5	Pentachlorophenol	BRL		µg/l	5.00	1	"	"	"	"	
85-01-8	Phenanthrene	BRL		µg/l	5.00	1	"	"	"	"	
108-95-2	Phenol	BRL		µg/l	5.00	1	"	"	"	"	
129-00-0	Pyrene	BRL		µg/l	5.00	1	"	"	"	"	
110-86-1	Pyridine	BRL		µg/l	5.00	1	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	5.00	1	"	"	"	"	
95-95-4	2,4,5-Trichlorophenol	BRL		µg/l	5.00	1	"	"	"	"	
88-06-2	2,4,6-Trichlorophenol	BRL		µg/l	5.00	1	"	"	"	"	
Surrogate recoveries:											
321-60-8	*2-Fluorobiphenyl*	*53*		*30-130 %*			"	"	"	"	
367-12-4	*2-Fluorophenol*	*52*		*15-110 %*			"	"	"	"	
4165-60-0	*Nitrobenzene-d5*	*51*		*30-130 %*			"	"	"	"	
4165-62-2	*Phenol-d5*	*37*		*15-110 %*			"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*57*		*30-130 %*			"	"	"	"	
118-79-6	*2,4,6-Tribromophenol*	*63*		*15-110 %*			"	"	"	"	
Semivolatile Organic Compounds by GC											
Polychlorinated Biphenyls by EPA 608											
Prepared by method SW846 3510C											
12674-11-2	Aroclor-1016	BRL		µg/l	0.0650	1	EPA 608	20-Jul-09	21-Jul-09	9071283	
11104-28-2	Aroclor-1221	BRL		µg/l	0.0650	1	"	"	"	"	
11141-16-5	Aroclor-1232	BRL		µg/l	0.0650	1	"	"	"	"	
53469-21-9	Aroclor-1242	BRL		µg/l	0.0650	1	"	"	"	"	
12672-29-6	Aroclor-1248	BRL		µg/l	0.0650	1	"	"	"	"	
11097-69-1	Aroclor-1254	BRL		µg/l	0.0650	1	"	"	"	"	
11096-82-5	Aroclor-1260	BRL		µg/l	0.0650	1	"	"	"	"	
37324-23-5	Aroclor-1262	BRL		µg/l	0.0650	1	"	"	"	"	
11100-14-4	Aroclor-1268	BRL		µg/l	0.0650	1	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
ECS-3 SA97889-01	91-010824.04	Ground Water	17-Jul-09 09:45	17-Jul-09

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Semivolatile Organic Compounds by GC											
Polychlorinated Biphenyls by EPA 608											
Prepared by method SW846 3510C											
Surrogate recoveries:											
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*31*		*30-150 %*			EPA 608	20-Jul-09	21-Jul-09	9071283	
2051-24-3	*Decachlorobiphenyl (Sr)*	*58*		*30-150 %*			"	"	"	"	
Extractable Petroleum Hydrocarbons											
	Non-polar material (SGT-HEM)	BRL		mg/l	1.0	1	EPA 1664 Rev. A	20-Jul-09	21-Jul-09	9071277	
Total Metals by EPA 200 Series Methods											
7440-22-4	Silver	BRL		mg/l	0.0050	1	EPA 200.7	20-Jul-09	20-Jul-09	9071291	X
7440-38-2	Arsenic	BRL		mg/l	0.0040	1	"	"	"	"	X
7440-43-9	Cadmium	BRL		mg/l	0.0025	1	"	"	20-Jul-09	"	X
7440-47-3	Chromium	BRL		mg/l	0.0050	1	"	"	20-Jul-09	"	X
7440-50-8	Copper	BRL		mg/l	0.0050	1	"	"	"	"	X
7439-89-6	Iron	0.438		mg/l	0.0150	1	"	"	20-Jul-09	"	X
7439-97-6	Mercury	BRL		mg/l	0.00020	1	EPA 245.1/7470A	"	21-Jul-09	9071292	X
7440-02-0	Nickel	BRL		mg/l	0.0050	1	EPA 200.7	"	20-Jul-09	9071291	X
7439-92-1	Lead	BRL		mg/l	0.0075	1	"	"	"	"	X
7440-36-0	Antimony	BRL		mg/l	0.0060	1	"	"	"	"	X
7782-49-2	Selenium	BRL		mg/l	0.0150	1	"	"	"	"	
7440-66-6	Zinc	0.0480		mg/l	0.0050	1	"	"	"	"	X
General Chemistry Parameters											
16065-83-1	Trivalent Chromium	BRL		mg/l	0.0050	1	Calculation	20-Jul-09	20-Jul-09	9071291	
18540-29-9	Hexavalent Chromium	BRL		mg/l	0.005	1	SW846 7196A/SM3500CrD	17-Jul-09 19:50	17-Jul-09 21:45	9071254	
57-12-5	Cyanide (total)	BRL		mg/l	0.0100	1	EPA 335.4	21-Jul-09	21-Jul-09	9071403	X
7782-50-5	Total Residual Chlorine	BRL	R01,CI HT	mg/l	0.200	10	Hach 8167	17-Jul-09 19:00	17-Jul-09 19:00	9071255	X
	Total Suspended Solids	7.00		mg/l	5.00	1	SM2540D	20-Jul-09	20-Jul-09	9071344	X

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB SA97889-02	91-010824.04	Deionized Water	17-Jul-09 00:00	17-Jul-09

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	Dilution	Method Ref.	Prepared	Analyzed	Batch	Cert.
Volatile Organic Compounds											
VPH Aliphatic/Aromatic Carbon Ranges											
Prepared by method VPH - EPA 5030B											
	C5-C8 Aliphatic Hydrocarbons	BRL		mg/l	0.0750	1	MADEP VPH 5/2004 Rev. 1.1	20-Jul-09	20-Jul-09	9071308	
	C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250	1	"	"	"	"	
	C9-C10 Aromatic Hydrocarbons	BRL		mg/l	0.0250	1	"	"	"	"	
	Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL		mg/l	0.0750	1	"	"	"	"	
	Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250	1	"	"	"	"	
VPH Target Analytes											
Prepared by method VPH - EPA 5030B											
71-43-2	Benzene	BRL		µg/l	5.0	1	"	"	"	"	
100-41-4	Ethylbenzene	BRL		µg/l	5.0	1	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	5.0	1	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/l	5.0	1	"	"	"	"	
108-88-3	Toluene	BRL		µg/l	5.0	1	"	"	"	"	
179601-23-1	m,p-Xylene	BRL		µg/l	10.0	1	"	"	"	"	
95-47-6	o-Xylene	BRL		µg/l	5.0	1	"	"	"	"	
Surrogate recoveries:											
615-59-8	*2,5-Dibromotoluene (FID)*	*103*		*70-130 %*			"	"	"	"	
615-59-8	*2,5-Dibromotoluene (PID)*	*106*		*70-130 %*			"	"	"	"	

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071308 - VPH - EPA 5030B										
Blank (9071308-BLK1)										
Prepared & Analyzed: 20-Jul-09										
C5-C8 Aliphatic Hydrocarbons	BRL		mg/l	0.0750						
C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250						
C9-C10 Aromatic Hydrocarbons	BRL		mg/l	0.0250						
Unadjusted C5-C8 Aliphatic Hydrocarbons	BRL		mg/l	0.0750						
Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250						
Benzene	BRL		µg/l	5.0						
Ethylbenzene	BRL		µg/l	5.0						
Methyl tert-butyl ether	BRL		µg/l	5.0						
Naphthalene	BRL		µg/l	5.0						
Toluene	BRL		µg/l	5.0						
m,p-Xylene	BRL		µg/l	10.0						
o-Xylene	BRL		µg/l	5.0						
2-Methylpentane	BRL		µg/l	5.0						
n-Nonane	BRL		µg/l	10.0						
n-Pentane	BRL		µg/l	10.0						
1,2,4-Trimethylbenzene	BRL		µg/l	5.0						
2,2,4-Trimethylpentane	BRL		µg/l	5.0						
n-Butylcyclohexane	BRL		µg/l	5.0						
n-Decane	BRL		µg/l	5.0						
Surrogate: 2,5-Dibromotoluene (FID)	*54.1*		µg/l		*50.0*		*108*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*55.7*		µg/l		*50.0*		*111*	*70-130*		
LCS (9071308-BS1)										
Prepared & Analyzed: 20-Jul-09										
C5-C8 Aliphatic Hydrocarbons	59.4		mg/l		60.0		99	70-130		
C9-C12 Aliphatic Hydrocarbons	62.9		mg/l		60.0		105	70-130		
C9-C10 Aromatic Hydrocarbons	20.4		mg/l		20.0		102	70-130		
Unadjusted C5-C8 Aliphatic Hydrocarbons	202		mg/l		200		101	70-130		
Unadjusted C9-C12 Aliphatic Hydrocarbons	83.3		mg/l		80.0		104	70-130		
Benzene	19.0		µg/l		20.0		95	70-130		
Ethylbenzene	21.4		µg/l		20.0		107	70-130		
Methyl tert-butyl ether	18.6		µg/l		20.0		93	70-130		
Naphthalene	20.0		µg/l		20.0		100	70-130		
Toluene	20.2		µg/l		20.0		101	70-130		
m,p-Xylene	42.2		µg/l		40.0		105	70-130		
o-Xylene	21.3		µg/l		20.0		107	70-130		
2-Methylpentane	20.2		µg/l		20.0		101	70-130		
n-Nonane	20.2		µg/l		20.0		101	70-130		
n-Pentane	21.0		µg/l		20.0		105	70-130		
1,2,4-Trimethylbenzene	21.8		µg/l		20.0		109	70-130		
2,2,4-Trimethylpentane	21.5		µg/l		20.0		108	70-130		
n-Butylcyclohexane	21.5		µg/l		20.0		108	70-130		
n-Decane	21.7		µg/l		20.0		109	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*53.2*		µg/l		*50.0*		*106*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*55.4*		µg/l		*50.0*		*111*	*70-130*		
LCS Dup (9071308-BSD1)										
Prepared & Analyzed: 20-Jul-09										
C5-C8 Aliphatic Hydrocarbons	60.4		mg/l		60.0		101	70-130	2	25
C9-C12 Aliphatic Hydrocarbons	63.9		mg/l		60.0		106	70-130	2	25
C9-C10 Aromatic Hydrocarbons	19.7		mg/l		20.0		99	70-130	4	25

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071308 - VPH - EPA 5030B										
LCS Dup (9071308-BSD1)										
Prepared & Analyzed: 20-Jul-09										
Unadjusted C5-C8 Aliphatic Hydrocarbons	198		mg/l		200		99	70-130	2	25
Unadjusted C9-C12 Aliphatic Hydrocarbons	83.6		mg/l		80.0		104	70-130	0.4	25
Benzene	18.5		µg/l		20.0		93	70-130	2	25
Ethylbenzene	20.3		µg/l		20.0		102	70-130	5	25
Methyl tert-butyl ether	18.3		µg/l		20.0		92	70-130	2	25
Naphthalene	21.1		µg/l		20.0		105	70-130	6	25
Toluene	19.1		µg/l		20.0		96	70-130	6	25
m,p-Xylene	40.8		µg/l		40.0		102	70-130	3	25
o-Xylene	20.6		µg/l		20.0		103	70-130	3	25
2-Methylpentane	19.4		µg/l		20.0		97	70-130	4	25
n-Nonane	20.1		µg/l		20.0		101	70-130	0.09	25
n-Pentane	19.3		µg/l		20.0		97	70-130	9	25
1,2,4-Trimethylbenzene	21.1		µg/l		20.0		105	70-130	3	25
2,2,4-Trimethylpentane	18.9		µg/l		20.0		95	70-130	13	25
n-Butylcyclohexane	22.3		µg/l		20.0		111	70-130	4	25
n-Decane	25.2		µg/l		20.0		126	70-130	15	25
Surrogate: 2,5-Dibromotoluene (FID)	*62.9*		µg/l		*50.0*		*126*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*63.6*		µg/l		*50.0*		*127*	*70-130*		
Duplicate (9071308-DUP1)	**Source: SA97889-01**									
Prepared & Analyzed: 20-Jul-09										
C5-C8 Aliphatic Hydrocarbons	0.0207	J	mg/l	0.0750		0.0219			6	50
C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250		BRL				50
C9-C10 Aromatic Hydrocarbons	BRL		mg/l	0.0250		BRL				50
Unadjusted C5-C8 Aliphatic Hydrocarbons	0.0594	J	mg/l	0.0750		0.0584			2	50
Unadjusted C9-C12 Aliphatic Hydrocarbons	BRL		mg/l	0.0250		BRL				50
Benzene	BRL		µg/l	5.0		BRL				50
Ethylbenzene	BRL		µg/l	5.0		BRL				50
Methyl tert-butyl ether	38.8		µg/l	5.0		36.5			6	50
Naphthalene	BRL		µg/l	5.0		BRL				50
Toluene	BRL		µg/l	5.0		BRL				50
m,p-Xylene	BRL		µg/l	10.0		BRL				50
o-Xylene	BRL		µg/l	5.0		BRL				50
Surrogate: 2,5-Dibromotoluene (FID)	*56.2*		µg/l		*50.0*		*112*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*57.9*		µg/l		*50.0*		*116*	*70-130*		
Matrix Spike (9071308-MS1)	**Source: SA97889-01**									
Prepared & Analyzed: 20-Jul-09										
Benzene	20.4		µg/l		20.0	BRL	102	70-130		
Ethylbenzene	21.9		µg/l		20.0	BRL	109	70-130		
Methyl tert-butyl ether	58.3		µg/l		20.0	36.5	109	70-130		
Naphthalene	23.4		µg/l		20.0	BRL	117	70-130		
Toluene	21.6		µg/l		20.0	BRL	108	70-130		
m,p-Xylene	43.0		µg/l		40.0	BRL	108	70-130		
o-Xylene	21.8		µg/l		20.0	BRL	109	70-130		
2-Methylpentane	21.5		µg/l		20.0	BRL	107	70-130		
n-Nonane	22.1		µg/l		20.0	BRL	110	70-130		
n-Pentane	28.6		µg/l		20.0	5.5	115	70-130		
1,2,4-Trimethylbenzene	22.1		µg/l		20.0	BRL	110	70-130		
2,2,4-Trimethylpentane	22.0		µg/l		20.0	BRL	110	70-130		
n-Butylcyclohexane	23.7		µg/l		20.0	BRL	118	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071308 - VPH - EPA 5030B										
Matrix Spike (9071308-MS1)	**Source: SA97889-01**									
Prepared & Analyzed: 20-Jul-09										
n-Decane	24.6		µg/l		20.0	BRL	123	70-130		
Surrogate: 2,5-Dibromotoluene (FID)	*64.1*		µg/l		*50.0*		*128*	*70-130*		
Surrogate: 2,5-Dibromotoluene (PID)	*65.0*		µg/l		*50.0*		*130*	*70-130*		
Batch 9071419 - SW846 5030 Water MS										
Blank (9071419-BLK1)										
Prepared & Analyzed: 21-Jul-09										
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	1.0						
Acetone	BRL		µg/l	10.0						
Acrylonitrile	BRL		µg/l	0.5						
Benzene	BRL		µg/l	1.0						
Bromobenzene	BRL		µg/l	1.0						
Bromochloromethane	BRL		µg/l	1.0						
Bromodichloromethane	BRL		µg/l	0.5						
Bromoform	BRL		µg/l	1.0						
Bromomethane	BRL		µg/l	2.0						
2-Butanone (MEK)	BRL		µg/l	10.0						
n-Butylbenzene	BRL		µg/l	1.0						
sec-Butylbenzene	BRL		µg/l	1.0						
tert-Butylbenzene	BRL		µg/l	1.0						
Carbon disulfide	BRL		µg/l	5.0						
Carbon tetrachloride	BRL		µg/l	1.0						
Chlorobenzene	BRL		µg/l	1.0						
Chloroethane	BRL		µg/l	2.0						
Chloroform	BRL		µg/l	1.0						
Chloromethane	BRL		µg/l	2.0						
2-Chlorotoluene	BRL		µg/l	1.0						
4-Chlorotoluene	BRL		µg/l	1.0						
1,2-Dibromo-3-chloropropane	BRL		µg/l	2.0						
Dibromochloromethane	BRL		µg/l	0.5						
1,2-Dibromoethane (EDB)	BRL		µg/l	0.5						
Dibromomethane	BRL		µg/l	1.0						
1,2-Dichlorobenzene	BRL		µg/l	1.0						
1,3-Dichlorobenzene	BRL		µg/l	1.0						
1,4-Dichlorobenzene	BRL		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	BRL		µg/l	2.0						
1,1-Dichloroethane	BRL		µg/l	1.0						
1,2-Dichloroethane	BRL		µg/l	1.0						
1,1-Dichloroethene	BRL		µg/l	1.0						
cis-1,2-Dichloroethene	BRL		µg/l	1.0						
trans-1,2-Dichloroethene	BRL		µg/l	1.0						
1,2-Dichloropropane	BRL		µg/l	1.0						
1,3-Dichloropropane	BRL		µg/l	1.0						
2,2-Dichloropropane	BRL		µg/l	1.0						
1,1-Dichloropropene	BRL		µg/l	1.0						
cis-1,3-Dichloropropene	BRL		µg/l	0.5						
trans-1,3-Dichloropropene	BRL		µg/l	0.5						
Ethylbenzene	BRL		µg/l	1.0						
Hexachlorobutadiene	BRL		µg/l	0.5						
2-Hexanone (MBK)	BRL		µg/l	10.0						

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071419 - SW846 5030 Water MS										
Blank (9071419-BLK1)										
Prepared & Analyzed: 21-Jul-09										
Isopropylbenzene	BRL		µg/l	1.0						
4-Isopropyltoluene	BRL		µg/l	1.0						
Methyl tert-butyl ether	BRL		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	BRL		µg/l	10.0						
Methylene chloride	BRL		µg/l	5.0						
Naphthalene	BRL		µg/l	1.0						
n-Propylbenzene	BRL		µg/l	1.0						
Styrene	BRL		µg/l	1.0						
1,1,1,2-Tetrachloroethane	BRL		µg/l	1.0						
1,1,2,2-Tetrachloroethane	BRL		µg/l	0.5						
Tetrachloroethene	BRL		µg/l	1.0						
Toluene	BRL		µg/l	1.0						
1,2,3-Trichlorobenzene	BRL		µg/l	1.0						
1,2,4-Trichlorobenzene	BRL		µg/l	1.0						
1,3,5-Trichlorobenzene	BRL		µg/l	1.0						
1,1,1-Trichloroethane	BRL		µg/l	1.0						
1,1,2-Trichloroethane	BRL		µg/l	1.0						
Trichloroethene	BRL		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	BRL		µg/l	1.0						
1,2,3-Trichloropropane	BRL		µg/l	1.0						
1,2,4-Trimethylbenzene	BRL		µg/l	1.0						
1,3,5-Trimethylbenzene	BRL		µg/l	1.0						
Vinyl chloride	BRL		µg/l	1.0						
m,p-Xylene	BRL		µg/l	2.0						
o-Xylene	BRL		µg/l	1.0						
Tetrahydrofuran	BRL		µg/l	10.0						
Ethyl ether	BRL		µg/l	1.0						
Tert-amyl methyl ether	BRL		µg/l	1.0						
Ethyl tert-butyl ether	BRL		µg/l	1.0						
Di-isopropyl ether	BRL		µg/l	1.0						
Tert-Butanol / butyl alcohol	BRL		µg/l	10.0						
1,4-Dioxane	BRL		µg/l	20.0						
trans-1,4-Dichloro-2-butene	BRL		µg/l	5.0						
Ethanol	BRL		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*47.3*		µg/l		*50.0*		*95*	*70-130*		
Surrogate: Dibromofluoromethane	*48.0*		µg/l		*50.0*		*96*	*70-130*		
LCS (9071419-BS1)										
Prepared & Analyzed: 21-Jul-09										
1,1,2-Trichlorotrifluoroethane (Freon 113)	20.9		µg/l		20.0		105	70-130		
Acetone	20.8		µg/l		20.0		104	52.2-144		
Acrylonitrile	21.2		µg/l		20.0		106	70-130		
Benzene	21.9		µg/l		20.0		109	70-130		
Bromobenzene	19.9		µg/l		20.0		100	70-130		
Bromochloromethane	18.8		µg/l		20.0		94	70-130		
Bromodichloromethane	18.5		µg/l		20.0		92	70-130		
Bromoform	20.8		µg/l		20.0		104	70-130		
Bromomethane	21.0		µg/l		20.0		105	40-167		
2-Butanone (MEK)	22.0		µg/l		20.0		110	57.7-141		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071419 - SW846 5030 Water MS										
LCS (9071419-BS1)										
Prepared & Analyzed: 21-Jul-09										
n-Butylbenzene	19.8		µg/l		20.0		99	70-130		
sec-Butylbenzene	21.7		µg/l		20.0		109	70-130		
tert-Butylbenzene	21.5		µg/l		20.0		108	70-130		
Carbon disulfide	19.5		µg/l		20.0		97	70-130		
Carbon tetrachloride	15.8		µg/l		20.0		79	70-130		
Chlorobenzene	21.6		µg/l		20.0		108	70-130		
Chloroethane	22.5		µg/l		20.0		113	65.1-130		
Chloroform	20.7		µg/l		20.0		104	70-130		
Chloromethane	20.6		µg/l		20.0		103	70-130		
2-Chlorotoluene	23.0		µg/l		20.0		115	70-130		
4-Chlorotoluene	23.1		µg/l		20.0		116	70-130		
1,2-Dibromo-3-chloropropane	16.6		µg/l		20.0		83	70-130		
Dibromochloromethane	17.9		µg/l		20.0		90	55.6-155		
1,2-Dibromoethane (EDB)	18.6		µg/l		20.0		93	70-130		
Dibromomethane	20.2		µg/l		20.0		101	70-130		
1,2-Dichlorobenzene	20.0		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	22.8		µg/l		20.0		114	70-130		
1,4-Dichlorobenzene	20.0		µg/l		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	17.4		µg/l		20.0		87	45.8-135		
1,1-Dichloroethane	19.5		µg/l		20.0		97	70-130		
1,2-Dichloroethane	20.3		µg/l		20.0		102	70-130		
1,1-Dichloroethene	19.7		µg/l		20.0		99	70-130		
cis-1,2-Dichloroethene	22.2		µg/l		20.0		111	70-130		
trans-1,2-Dichloroethene	19.3		µg/l		20.0		96	70-130		
1,2-Dichloropropane	19.3		µg/l		20.0		96	70-130		
1,3-Dichloropropane	20.7		µg/l		20.0		104	70-130		
2,2-Dichloropropane	13.8	QC2	µg/l		20.0		69	70-130		
1,1-Dichloropropene	20.7		µg/l		20.0		104	70-130		
cis-1,3-Dichloropropene	17.5		µg/l		20.0		87	70-130		
trans-1,3-Dichloropropene	15.4		µg/l		20.0		77	70-130		
Ethylbenzene	21.2		µg/l		20.0		106	70-130		
Hexachlorobutadiene	19.1		µg/l		20.0		95	63.3-141		
2-Hexanone (MBK)	20.2		µg/l		20.0		101	70-130		
Isopropylbenzene	19.2		µg/l		20.0		96	70-130		
4-Isopropyltoluene	20.8		µg/l		20.0		104	70-130		
Methyl tert-butyl ether	18.7		µg/l		20.0		93	70-130		
4-Methyl-2-pentanone (MIBK)	19.7		µg/l		20.0		98	40-157		
Methylene chloride	16.9		µg/l		20.0		84	70-130		
Naphthalene	18.2		µg/l		20.0		91	70-130		
n-Propylbenzene	22.5		µg/l		20.0		113	70-130		
Styrene	21.8		µg/l		20.0		109	70-130		
1,1,1,2-Tetrachloroethane	17.7		µg/l		20.0		88	70-130		
1,1,2,2-Tetrachloroethane	20.7		µg/l		20.0		103	70-130		
Tetrachloroethene	18.8		µg/l		20.0		94	70-130		
Toluene	20.1		µg/l		20.0		100	70-130		
1,2,3-Trichlorobenzene	18.3		µg/l		20.0		92	70-130		
1,2,4-Trichlorobenzene	18.6		µg/l		20.0		93	70-130		
1,3,5-Trichlorobenzene	19.6		µg/l		20.0		98	70-130		
1,1,1-Trichloroethane	16.9		µg/l		20.0		85	70-130		

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071419 - SW846 5030 Water MS										
LCS (9071419-BS1)										
Prepared & Analyzed: 21-Jul-09										
1,1,2-Trichloroethane	19.6		µg/l		20.0		98	70-130		
Trichloroethene	20.2		µg/l		20.0		101	70-130		
Trichlorofluoromethane (Freon 11)	18.8		µg/l		20.0		94	61.9-167		
1,2,3-Trichloropropane	23.1		µg/l		20.0		115	70-130		
1,2,4-Trimethylbenzene	22.1		µg/l		20.0		110	70-130		
1,3,5-Trimethylbenzene	21.5		µg/l		20.0		108	70-130		
Vinyl chloride	21.5		µg/l		20.0		107	70-130		
m,p-Xylene	45.6		µg/l		40.0		114	70-130		
o-Xylene	21.7		µg/l		20.0		109	70-130		
Tetrahydrofuran	21.5		µg/l		20.0		108	70-130		
Ethyl ether	20.8		µg/l		20.0		104	70-133		
Tert-amyl methyl ether	25.3		µg/l		20.0		127	70-130		
Ethyl tert-butyl ether	16.4		µg/l		20.0		82	70-130		
Di-isopropyl ether	20.2		µg/l		20.0		101	70-130		
Tert-Butanol / butyl alcohol	159		µg/l		200		79	70-130		
1,4-Dioxane	195		µg/l		200		97	50.6-156		
trans-1,4-Dichloro-2-butene	16.6		µg/l		20.0		83	70-130		
Ethanol	428		µg/l		400		107	70-130		
Surrogate: 4-Bromofluorobenzene	*49.0*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*49.0*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*45.4*		µg/l		*50.0*		*91*	*70-130*		
Surrogate: Dibromofluoromethane	*46.1*		µg/l		*50.0*		*92*	*70-130*		
LCS Dup (9071419-BSD1)										
Prepared & Analyzed: 21-Jul-09										
1,1,2-Trichlorotrifluoroethane (Freon 113)	18.9		µg/l		20.0		95	70-130	10	25
Acetone	20.1		µg/l		20.0		101	52.2-144	3	50
Acrylonitrile	20.5		µg/l		20.0		103	70-130	3	25
Benzene	20.1		µg/l		20.0		100	70-130	9	25
Bromobenzene	18.8		µg/l		20.0		94	70-130	5	25
Bromochloromethane	17.1		µg/l		20.0		86	70-130	10	25
Bromodichloromethane	17.8		µg/l		20.0		89	70-130	4	25
Bromoform	18.2		µg/l		20.0		91	70-130	13	25
Bromomethane	18.8		µg/l		20.0		94	40-167	11	50
2-Butanone (MEK)	21.5		µg/l		20.0		107	57.7-141	2	50
n-Butylbenzene	18.7		µg/l		20.0		93	70-130	6	25
sec-Butylbenzene	20.4		µg/l		20.0		102	70-130	7	25
tert-Butylbenzene	20.5		µg/l		20.0		102	70-130	5	25
Carbon disulfide	17.7		µg/l		20.0		88	70-130	10	25
Carbon tetrachloride	14.5		µg/l		20.0		72	70-130	9	25
Chlorobenzene	20.3		µg/l		20.0		102	70-130	6	25
Chloroethane	19.4		µg/l		20.0		97	65.1-130	15	50
Chloroform	19.0		µg/l		20.0		95	70-130	9	25
Chloromethane	18.7		µg/l		20.0		94	70-130	9	25
2-Chlorotoluene	20.0		µg/l		20.0		100	70-130	14	25
4-Chlorotoluene	22.3		µg/l		20.0		112	70-130	3	25
1,2-Dibromo-3-chloropropane	14.3		µg/l		20.0		71	70-130	15	25
Dibromochloromethane	16.5		µg/l		20.0		83	55.6-155	8	50
1,2-Dibromoethane (EDB)	17.2		µg/l		20.0		86	70-130	8	25
Dibromomethane	19.7		µg/l		20.0		99	70-130	3	25
1,2-Dichlorobenzene	20.2		µg/l		20.0		101	70-130	0.7	25

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071419 - SW846 5030 Water MS										
LCS Dup (9071419-BSD1)										
Prepared & Analyzed: 21-Jul-09										
1,3-Dichlorobenzene	21.6		µg/l		20.0		108	70-130	5	25
1,4-Dichlorobenzene	19.9		µg/l		20.0		99	70-130	0.9	25
Dichlorodifluoromethane (Freon12)	16.0		µg/l		20.0		80	45.8-135	8	50
1,1-Dichloroethane	19.0		µg/l		20.0		95	70-130	2	25
1,2-Dichloroethane	19.1		µg/l		20.0		96	70-130	6	25
1,1-Dichloroethene	18.3		µg/l		20.0		92	70-130	7	25
cis-1,2-Dichloroethene	22.0		µg/l		20.0		110	70-130	1	25
trans-1,2-Dichloroethene	17.0		µg/l		20.0		85	70-130	13	25
1,2-Dichloropropane	19.0		µg/l		20.0		95	70-130	2	25
1,3-Dichloropropane	19.9		µg/l		20.0		100	70-130	4	25
2,2-Dichloropropane	13.7	QC2	µg/l		20.0		68	70-130	0.7	25
1,1-Dichloropropene	16.6		µg/l		20.0		83	70-130	22	25
cis-1,3-Dichloropropene	16.4		µg/l		20.0		82	70-130	7	25
trans-1,3-Dichloropropene	14.4		µg/l		20.0		72	70-130	7	25
Ethylbenzene	19.9		µg/l		20.0		100	70-130	6	25
Hexachlorobutadiene	17.5		µg/l		20.0		88	63.3-141	9	50
2-Hexanone (MBK)	19.8		µg/l		20.0		99	70-130	2	25
Isopropylbenzene	17.3		µg/l		20.0		87	70-130	10	25
4-Isopropyltoluene	19.8		µg/l		20.0		99	70-130	5	25
Methyl tert-butyl ether	18.3		µg/l		20.0		92	70-130	2	25
4-Methyl-2-pentanone (MIBK)	19.1		µg/l		20.0		96	40-157	3	50
Methylene chloride	19.5		µg/l		20.0		97	70-130	14	25
Naphthalene	17.3		µg/l		20.0		86	70-130	5	25
n-Propylbenzene	21.1		µg/l		20.0		106	70-130	6	25
Styrene	20.1		µg/l		20.0		100	70-130	8	25
1,1,1,2-Tetrachloroethane	15.6		µg/l		20.0		78	70-130	13	25
1,1,2,2-Tetrachloroethane	19.7		µg/l		20.0		98	70-130	5	25
Tetrachloroethene	17.3		µg/l		20.0		87	70-130	8	25
Toluene	18.2		µg/l		20.0		91	70-130	10	25
1,2,3-Trichlorobenzene	16.9		µg/l		20.0		85	70-130	8	25
1,2,4-Trichlorobenzene	17.4		µg/l		20.0		87	70-130	6	25
1,3,5-Trichlorobenzene	18.6		µg/l		20.0		93	70-130	5	25
1,1,1-Trichloroethane	15.2		µg/l		20.0		76	70-130	11	25
1,1,2-Trichloroethane	19.5		µg/l		20.0		97	70-130	0.8	25
Trichloroethene	19.3		µg/l		20.0		96	70-130	5	25
Trichlorofluoromethane (Freon 11)	17.8		µg/l		20.0		89	61.9-167	5	50
1,2,3-Trichloropropane	22.0		µg/l		20.0		110	70-130	5	25
1,2,4-Trimethylbenzene	20.2		µg/l		20.0		101	70-130	9	25
1,3,5-Trimethylbenzene	20.4		µg/l		20.0		102	70-130	5	25
Vinyl chloride	18.0		µg/l		20.0		90	70-130	18	25
m,p-Xylene	41.6		µg/l		40.0		104	70-130	9	25
o-Xylene	20.6		µg/l		20.0		103	70-130	5	25
Tetrahydrofuran	21.1		µg/l		20.0		106	70-130	2	25
Ethyl ether	21.5		µg/l		20.0		108	70-133	3	50
Tert-amyl methyl ether	25.0		µg/l		20.0		125	70-130	1	25
Ethyl tert-butyl ether	16.1		µg/l		20.0		80	70-130	2	25
Di-isopropyl ether	19.3		µg/l		20.0		96	70-130	5	25
Tert-Butanol / butyl alcohol	148		µg/l		200		74	70-130	7	25
1,4-Dioxane	157		µg/l		200		78	50.6-156	22	25

Volatile Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071419 - SW846 5030 Water MS										
LCS Dup (9071419-BSD1)										
Prepared & Analyzed: 21-Jul-09										
trans-1,4-Dichloro-2-butene	15.9		µg/l		20.0		79	70-130	5	25
Ethanol	433		µg/l		400		108	70-130	1	30
Surrogate: 4-Bromofluorobenzene	*49.0*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*49.2*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*45.4*		µg/l		*50.0*		*91*	*70-130*		
Surrogate: Dibromofluoromethane	*48.6*		µg/l		*50.0*		*97*	*70-130*		

Microextractable Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071294 - Microextraction										
Blank (9071294-BLK1)										
Prepared & Analyzed: 20-Jul-09										
1,2-Dibromoethane (EDB)	BRL		µg/l	0.0100						
LCS (9071294-BS1)										
Prepared & Analyzed: 20-Jul-09										
1,2-Dibromoethane (EDB)	0.191		µg/l	0.0100	0.200		96	50-150		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071274 - SW846 3510C										
Blank (9071274-BLK1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Acenaphthene	BRL		µg/l	5.00						
Acenaphthylene	BRL		µg/l	5.00						
Aniline	BRL		µg/l	5.00						
Anthracene	BRL		µg/l	5.00						
Azobenzene/Diphenyldiazine	BRL		µg/l	5.00						
Benzidine	BRL		µg/l	5.00						
Benzo (a) anthracene	BRL		µg/l	5.00						
Benzo (a) pyrene	BRL		µg/l	5.00						
Benzo (b) fluoranthene	BRL		µg/l	5.00						
Benzo (g,h,i) perylene	BRL		µg/l	5.00						
Benzo (k) fluoranthene	BRL		µg/l	5.00						
Benzoic acid	BRL		µg/l	5.00						
Benzyl alcohol	BRL		µg/l	5.00						
Bis(2-chloroethoxy)methane	BRL		µg/l	5.00						
Bis(2-chloroethyl)ether	BRL		µg/l	5.00						
Bis(2-chloroisopropyl)ether	BRL		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	BRL		µg/l	5.00						
4-Bromophenyl phenyl ether	BRL		µg/l	5.00						
Butyl benzyl phthalate	BRL		µg/l	5.00						
Carbazole	BRL		µg/l	5.00						
4-Chloro-3-methylphenol	BRL		µg/l	5.00						
4-Chloroaniline	BRL		µg/l	5.00						
2-Chloronaphthalene	BRL		µg/l	5.00						
2-Chlorophenol	BRL		µg/l	5.00						
4-Chlorophenyl phenyl ether	BRL		µg/l	5.00						
Chrysene	BRL		µg/l	5.00						
Dibenzo (a,h) anthracene	BRL		µg/l	5.00						
Dibenzofuran	BRL		µg/l	5.00						
1,2-Dichlorobenzene	BRL		µg/l	5.00						
1,3-Dichlorobenzene	BRL		µg/l	5.00						
1,4-Dichlorobenzene	BRL		µg/l	5.00						
3,3'-Dichlorobenzidine	BRL		µg/l	5.00						
2,4-Dichlorophenol	BRL		µg/l	5.00						
Diethyl phthalate	BRL		µg/l	5.00						
Dimethyl phthalate	BRL		µg/l	5.00						
2,4-Dimethylphenol	BRL		µg/l	5.00						
Di-n-butyl phthalate	BRL		µg/l	5.00						
4,6-Dinitro-2-methylphenol	BRL		µg/l	5.00						
2,4-Dinitrophenol	BRL		µg/l	5.00						
2,4-Dinitrotoluene	BRL		µg/l	5.00						
2,6-Dinitrotoluene	BRL		µg/l	5.00						
Di-n-octyl phthalate	BRL		µg/l	5.00						
Fluoranthene	BRL		µg/l	5.00						
Fluorene	BRL		µg/l	5.00						
Hexachlorobenzene	BRL		µg/l	5.00						
Hexachlorobutadiene	BRL		µg/l	5.00						
Hexachlorocyclopentadiene	BRL		µg/l	5.00						
Hexachloroethane	BRL		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	BRL		µg/l	5.00						

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071274 - SW846 3510C										
Blank (9071274-BLK1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Isophorone	BRL		µg/l	5.00						
2-Methylnaphthalene	BRL		µg/l	5.00						
2-Methylphenol	BRL		µg/l	5.00						
3 & 4-Methylphenol	BRL		µg/l	10.0						
Naphthalene	BRL		µg/l	5.00						
2-Nitroaniline	BRL		µg/l	5.00						
3-Nitroaniline	BRL		µg/l	5.00						
4-Nitroaniline	BRL		µg/l	5.00						
Nitrobenzene	BRL		µg/l	5.00						
2-Nitrophenol	BRL		µg/l	5.00						
4-Nitrophenol	BRL		µg/l	5.00						
N-Nitrosodimethylamine	BRL		µg/l	5.00						
N-Nitrosodi-n-propylamine	BRL		µg/l	5.00						
N-Nitrosodiphenylamine	BRL		µg/l	5.00						
Pentachlorophenol	BRL		µg/l	5.00						
Phenanthrene	BRL		µg/l	5.00						
Phenol	BRL		µg/l	5.00						
Pyrene	BRL		µg/l	5.00						
Pyridine	BRL		µg/l	5.00						
1,2,4-Trichlorobenzene	BRL		µg/l	5.00						
2,4,5-Trichlorophenol	BRL		µg/l	5.00						
2,4,6-Trichlorophenol	BRL		µg/l	5.00						
Surrogate: 2-Fluorobiphenyl	*22.9*		µg/l		*50.0*		*46*	*30-130*		
Surrogate: 2-Fluorophenol	*19.2*		µg/l		*50.0*		*38*	*15-110*		
Surrogate: Nitrobenzene-d5	*23.0*		µg/l		*50.0*		*46*	*30-130*		
Surrogate: Phenol-d5	*11.7*		µg/l		*50.0*		*23*	*15-110*		
Surrogate: Terphenyl-dl4	*25.6*		µg/l		*50.0*		*51*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*27.2*		µg/l		*50.0*		*54*	*15-110*		
LCS (9071274-BS1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Acenaphthene	33.3		µg/l	5.00	50.0		67	40-140		
Acenaphthylene	33.6		µg/l	5.00	50.0		67	40-140		
Aniline	30.3		µg/l	5.00	50.0		61	40-140		
Anthracene	35.5		µg/l	5.00	50.0		71	40-140		
Azobenzene/Diphenyldiazine	34.6		µg/l	5.00	50.0		69	40-140		
Benzidine	7.39		µg/l	5.00	50.0		15	0-140		
Benzo (a) anthracene	35.6		µg/l	5.00	50.0		71	40-140		
Benzo (a) pyrene	35.0		µg/l	5.00	50.0		70	40-140		
Benzo (b) fluoranthene	33.2		µg/l	5.00	50.0		66	40-140		
Benzo (g,h,i) perylene	38.8		µg/l	5.00	50.0		78	40-140		
Benzo (k) fluoranthene	35.6		µg/l	5.00	50.0		71	40-140		
Benzoic acid	20.7		µg/l	5.00	50.0		41	12.6-140		
Benzyl alcohol	30.5		µg/l	5.00	50.0		61	40-140		
Bis(2-chloroethoxy)methane	33.9		µg/l	5.00	50.0		68	40-140		
Bis(2-chloroethyl)ether	36.1		µg/l	5.00	50.0		72	40-140		
Bis(2-chloroisopropyl)ether	35.4		µg/l	5.00	50.0		71	40-140		
Bis(2-ethylhexyl)phthalate	38.7		µg/l	5.00	50.0		77	40-140		
4-Bromophenyl phenyl ether	40.4		µg/l	5.00	50.0		81	40-140		
Butyl benzyl phthalate	37.7		µg/l	5.00	50.0		75	40-140		
Carbazole	34.5		µg/l	5.00	50.0		69	0-200		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071274 - SW846 3510C										
LCS (9071274-BS1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
4-Chloro-3-methylphenol	34.4		µg/l	5.00	50.0		69	30-130		
4-Chloroaniline	33.1		µg/l	5.00	50.0		66	40-140		
2-Chloronaphthalene	31.0		µg/l	5.00	50.0		62	40-140		
2-Chlorophenol	31.4		µg/l	5.00	50.0		63	30-130		
4-Chlorophenyl phenyl ether	35.2		µg/l	5.00	50.0		70	40-140		
Chrysene	35.5		µg/l	5.00	50.0		71	40-140		
Dibenzo (a,h) anthracene	37.8		µg/l	5.00	50.0		76	40-140		
Dibenzofuran	32.4		µg/l	5.00	50.0		65	40-140		
1,2-Dichlorobenzene	28.8		µg/l	5.00	50.0		58	40-140		
1,3-Dichlorobenzene	28.8		µg/l	5.00	50.0		58	40-140		
1,4-Dichlorobenzene	30.2		µg/l	5.00	50.0		60	40-140		
3,3'-Dichlorobenzidine	34.8		µg/l	5.00	50.0		70	40-140		
2,4-Dichlorophenol	32.0		µg/l	5.00	50.0		64	30-130		
Diethyl phthalate	36.4		µg/l	5.00	50.0		73	40-140		
Dimethyl phthalate	36.3		µg/l	5.00	50.0		73	40-140		
2,4-Dimethylphenol	32.8		µg/l	5.00	50.0		66	30-130		
Di-n-butyl phthalate	37.4		µg/l	5.00	50.0		75	40-140		
4,6-Dinitro-2-methylphenol	34.5		µg/l	5.00	50.0		69	30-130		
2,4-Dinitrophenol	34.7		µg/l	5.00	50.0		69	30-130		
2,4-Dinitrotoluene	32.8		µg/l	5.00	50.0		66	40-140		
2,6-Dinitrotoluene	32.3		µg/l	5.00	50.0		65	40-140		
Di-n-octyl phthalate	38.1		µg/l	5.00	50.0		76	40-140		
Fluoranthene	35.5		µg/l	5.00	50.0		71	40-140		
Fluorene	34.1		µg/l	5.00	50.0		68	40-140		
Hexachlorobenzene	32.5		µg/l	5.00	50.0		65	40-140		
Hexachlorobutadiene	28.5		µg/l	5.00	50.0		57	40-140		
Hexachlorocyclopentadiene	29.5		µg/l	5.00	50.0		59	40-140		
Hexachloroethane	29.7		µg/l	5.00	50.0		59	40-140		
Indeno (1,2,3-cd) pyrene	38.5		µg/l	5.00	50.0		77	40-140		
Isophorone	30.0		µg/l	5.00	50.0		60	40-140		
2-Methylnaphthalene	31.6		µg/l	5.00	50.0		63	40-140		
2-Methylphenol	32.6		µg/l	5.00	50.0		65	40-140		
3 & 4-Methylphenol	31.3		µg/l	10.0	50.0		63	40-140		
Naphthalene	31.1		µg/l	5.00	50.0		62	40-140		
2-Nitroaniline	34.0		µg/l	5.00	50.0		68	40-140		
3-Nitroaniline	32.5		µg/l	5.00	50.0		65	40-140		
4-Nitroaniline	35.0		µg/l	5.00	50.0		70	40-140		
Nitrobenzene	31.4		µg/l	5.00	50.0		63	40-140		
2-Nitrophenol	30.2		µg/l	5.00	50.0		60	30-130		
4-Nitrophenol	21.8		µg/l	5.00	50.0		44	30-130		
N-Nitrosodimethylamine	28.2		µg/l	5.00	50.0		56	40-140		
N-Nitrosodi-n-propylamine	35.8		µg/l	5.00	50.0		72	40-140		
N-Nitrosodiphenylamine	36.1		µg/l	5.00	50.0		72	40-140		
Pentachlorophenol	40.2		µg/l	5.00	50.0		80	30-130		
Phenanthrene	34.3		µg/l	5.00	50.0		69	40-140		
Phenol	20.0		µg/l	5.00	50.0		40	30-130		
Pyrene	34.6		µg/l	5.00	50.0		69	40-140		
Pyridine	17.9	QC2	µg/l	5.00	50.0		36	40-140		
1,2,4-Trichlorobenzene	28.8		µg/l	5.00	50.0		58	40-140		

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071274 - SW846 3510C										
LCS (9071274-BS1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
2,4,5-Trichlorophenol	33.6		µg/l	5.00	50.0		67	30-130		
2,4,6-Trichlorophenol	31.1		µg/l	5.00	50.0		62	30-130		
Surrogate: 2-Fluorobiphenyl	*26.7*		µg/l		*50.0*		*53*	*30-130*		
Surrogate: 2-Fluorophenol	*22.0*		µg/l		*50.0*		*44*	*15-110*		
Surrogate: Nitrobenzene-d5	*28.6*		µg/l		*50.0*		*57*	*30-130*		
Surrogate: Phenol-d5	*12.9*		µg/l		*50.0*		*26*	*15-110*		
Surrogate: Terphenyl-dl4	*29.3*		µg/l		*50.0*		*59*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*32.9*		µg/l		*50.0*		*66*	*15-110*		
LCS Dup (9071274-BSD1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Acenaphthene	33.1		µg/l	5.00	50.0		66	40-140	0.6	200
Acenaphthylene	33.8		µg/l	5.00	50.0		68	40-140	0.5	200
Aniline	29.1		µg/l	5.00	50.0		58	40-140	4	200
Anthracene	35.1		µg/l	5.00	50.0		70	40-140	1	200
Azobenzene/Diphenyldiazine	33.8		µg/l	5.00	50.0		68	40-140	2	200
Benzidine	5.28		µg/l	5.00	50.0		11	0-140	33	200
Benzo (a) anthracene	35.0		µg/l	5.00	50.0		70	40-140	2	200
Benzo (a) pyrene	33.8		µg/l	5.00	50.0		68	40-140	4	200
Benzo (b) fluoranthene	33.7		µg/l	5.00	50.0		67	40-140	1	200
Benzo (g,h,i) perylene	38.0		µg/l	5.00	50.0		76	40-140	2	200
Benzo (k) fluoranthene	32.9		µg/l	5.00	50.0		66	40-140	8	200
Benzoic acid	20.8		µg/l	5.00	50.0		42	12.6-140	0.7	200
Benzyl alcohol	29.8		µg/l	5.00	50.0		60	40-140	2	200
Bis(2-chloroethoxy)methane	32.9		µg/l	5.00	50.0		66	40-140	3	200
Bis(2-chloroethyl)ether	34.9		µg/l	5.00	50.0		70	40-140	3	200
Bis(2-chloroisopropyl)ether	34.0		µg/l	5.00	50.0		68	40-140	4	200
Bis(2-ethylhexyl)phthalate	36.4		µg/l	5.00	50.0		73	40-140	6	200
4-Bromophenyl phenyl ether	40.6		µg/l	5.00	50.0		81	40-140	0.4	200
Butyl benzyl phthalate	36.2		µg/l	5.00	50.0		72	40-140	4	200
Carbazole	34.4		µg/l	5.00	50.0		69	0-200	0.3	200
4-Chloro-3-methylphenol	33.1		µg/l	5.00	50.0		66	30-130	4	200
4-Chloroaniline	31.7		µg/l	5.00	50.0		63	40-140	4	200
2-Chloronaphthalene	31.0		µg/l	5.00	50.0		62	40-140	0.06	200
2-Chlorophenol	30.2		µg/l	5.00	50.0		60	30-130	4	200
4-Chlorophenyl phenyl ether	35.0		µg/l	5.00	50.0		70	40-140	0.6	200
Chrysene	32.8		µg/l	5.00	50.0		66	40-140	8	200
Dibenzo (a,h) anthracene	37.4		µg/l	5.00	50.0		75	40-140	1	200
Dibenzofuran	32.4		µg/l	5.00	50.0		65	40-140	0.09	200
1,2-Dichlorobenzene	27.8		µg/l	5.00	50.0		56	40-140	4	200
1,3-Dichlorobenzene	27.3		µg/l	5.00	50.0		55	40-140	5	200
1,4-Dichlorobenzene	28.5		µg/l	5.00	50.0		57	40-140	6	200
3,3'-Dichlorobenzidine	32.8		µg/l	5.00	50.0		66	40-140	6	200
2,4-Dichlorophenol	31.0		µg/l	5.00	50.0		62	30-130	3	200
Diethyl phthalate	36.6		µg/l	5.00	50.0		73	40-140	0.6	200
Dimethyl phthalate	36.4		µg/l	5.00	50.0		73	40-140	0.3	200
2,4-Dimethylphenol	30.9		µg/l	5.00	50.0		62	30-130	6	200
Di-n-butyl phthalate	37.2		µg/l	5.00	50.0		74	40-140	0.5	200
4,6-Dinitro-2-methylphenol	34.8		µg/l	5.00	50.0		70	30-130	0.7	200
2,4-Dinitrophenol	35.8		µg/l	5.00	50.0		72	30-130	3	200
2,4-Dinitrotoluene	33.3		µg/l	5.00	50.0		67	40-140	2	200

Semivolatile Organic Compounds by GCMS - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071274 - SW846 3510C										
LCS Dup (9071274-BSD1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
2,6-Dinitrotoluene	33.3		µg/l	5.00	50.0		67	40-140	3	200
Di-n-octyl phthalate	37.0		µg/l	5.00	50.0		74	40-140	3	200
Fluoranthene	34.7		µg/l	5.00	50.0		69	40-140	2	200
Fluorene	33.8		µg/l	5.00	50.0		68	40-140	0.8	200
Hexachlorobenzene	32.3		µg/l	5.00	50.0		65	40-140	0.6	200
Hexachlorobutadiene	27.3		µg/l	5.00	50.0		55	40-140	4	200
Hexachlorocyclopentadiene	29.6		µg/l	5.00	50.0		59	40-140	0.2	200
Hexachloroethane	28.3		µg/l	5.00	50.0		57	40-140	5	200
Indeno (1,2,3-cd) pyrene	37.8		µg/l	5.00	50.0		76	40-140	2	200
Isophorone	29.3		µg/l	5.00	50.0		59	40-140	2	200
2-Methylnaphthalene	30.8		µg/l	5.00	50.0		62	40-140	3	200
2-Methylphenol	31.2		µg/l	5.00	50.0		62	40-140	4	200
3 & 4-Methylphenol	29.7		µg/l	10.0	50.0		59	40-140	5	200
Naphthalene	30.4		µg/l	5.00	50.0		61	40-140	2	200
2-Nitroaniline	33.7		µg/l	5.00	50.0		67	40-140	0.9	200
3-Nitroaniline	32.7		µg/l	5.00	50.0		65	40-140	0.7	200
4-Nitroaniline	35.0		µg/l	5.00	50.0		70	40-140	0.06	200
Nitrobenzene	30.5		µg/l	5.00	50.0		61	40-140	3	200
2-Nitrophenol	29.3		µg/l	5.00	50.0		59	30-130	3	200
4-Nitrophenol	22.3		µg/l	5.00	50.0		45	30-130	2	200
N-Nitrosodimethylamine	26.5		µg/l	5.00	50.0		53	40-140	6	200
N-Nitrosodi-n-propylamine	34.7		µg/l	5.00	50.0		69	40-140	3	200
N-Nitrosodiphenylamine	35.0		µg/l	5.00	50.0		70	40-140	3	200
Pentachlorophenol	40.0		µg/l	5.00	50.0		80	30-130	0.5	200
Phenanthrene	33.8		µg/l	5.00	50.0		68	40-140	1	200
Phenol	19.5		µg/l	5.00	50.0		39	30-130	3	200
Pyrene	32.9		µg/l	5.00	50.0		66	40-140	5	200
Pyridine	21.9		µg/l	5.00	50.0		44	40-140	20	200
1,2,4-Trichlorobenzene	27.6		µg/l	5.00	50.0		55	40-140	4	200
2,4,5-Trichlorophenol	33.9		µg/l	5.00	50.0		68	30-130	0.9	200
2,4,6-Trichlorophenol	31.2		µg/l	5.00	50.0		62	30-130	0.6	200
Surrogate: 2-Fluorobiphenyl	*27.4*		µg/l		*50.0*		*55*	*30-130*		
Surrogate: 2-Fluorophenol	*21.3*		µg/l		*50.0*		*43*	*15-110*		
Surrogate: Nitrobenzene-d5	*27.8*		µg/l		*50.0*		*56*	*30-130*		
Surrogate: Phenol-d5	*12.6*		µg/l		*50.0*		*25*	*15-110*		
Surrogate: Terphenyl-dl4	*28.3*		µg/l		*50.0*		*57*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*33.3*		µg/l		*50.0*		*67*	*15-110*		

Semivolatile Organic Compounds by GC - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071283 - SW846 3510C										
Blank (9071283-BLK1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Aroclor-1016	BRL		µg/l	0.200						
Aroclor-1016 [2C]	BRL		µg/l	0.200						
Aroclor-1221	BRL		µg/l	0.200						
Aroclor-1221 [2C]	BRL		µg/l	0.200						
Aroclor-1232	BRL		µg/l	0.200						
Aroclor-1232 [2C]	BRL		µg/l	0.200						
Aroclor-1242	BRL		µg/l	0.200						
Aroclor-1242 [2C]	BRL		µg/l	0.200						
Aroclor-1248	BRL		µg/l	0.200						
Aroclor-1248 [2C]	BRL		µg/l	0.200						
Aroclor-1254	BRL		µg/l	0.200						
Aroclor-1254 [2C]	BRL		µg/l	0.200						
Aroclor-1260	BRL		µg/l	0.200						
Aroclor-1260 [2C]	BRL		µg/l	0.200						
Aroclor-1262	BRL		µg/l	0.200						
Aroclor-1262 [2C]	BRL		µg/l	0.200						
Aroclor-1268	BRL		µg/l	0.200						
Aroclor-1268 [2C]	BRL		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.163*		µg/l		*0.200*		*82*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2	*0.190*		µg/l		*0.200*		*95*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.197*		µg/l		*0.200*		*98*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.178*		µg/l		*0.200*		*89*	*30-150*		
LCS (9071283-BS1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Aroclor-1016	1.60		µg/l	0.200	2.50		64	50-114		
Aroclor-1016 [2C]	1.59		µg/l	0.200	2.50		63	50-114		
Aroclor-1260	1.64		µg/l	0.200	2.50		66	40-127		
Aroclor-1260 [2C]	1.55		µg/l	0.200	2.50		62	40-127		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.0750*		µg/l		*0.200*		*38*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2	*0.0860*		µg/l		*0.200*		*43*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.191*		µg/l		*0.200*		*96*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.125*		µg/l		*0.200*		*62*	*30-150*		
LCS Dup (9071283-BSD1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Aroclor-1016	1.65		µg/l	0.200	2.50		66	50-114	3	20
Aroclor-1016 [2C]	1.62		µg/l	0.200	2.50		65	50-114	2	20
Aroclor-1260	1.53		µg/l	0.200	2.50		61	40-127	7	20
Aroclor-1260 [2C]	1.57		µg/l	0.200	2.50		63	40-127	1	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.0780*		µg/l		*0.200*		*39*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2	*0.0800*		µg/l		*0.200*		*40*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.133*		µg/l		*0.200*		*66*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.127*		µg/l		*0.200*		*64*	*30-150*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071277 - SW846 3510C										
Blank (9071277-BLK1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Non-polar material (SGT-HEM)	BRL		mg/l	1.0						
LCS (9071277-BS1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Non-polar material (SGT-HEM)	25.9		mg/l		32.4		80	71.6-85.2		

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071291 - EPA 200 Series										
Blank (9071291-BLK1)										
Prepared & Analyzed: 20-Jul-09										
Iron	BRL		mg/l	0.0150						
Lead	BRL		mg/l	0.0075						
Antimony	BRL		mg/l	0.0060						
Nickel	BRL		mg/l	0.0050						
Selenium	BRL		mg/l	0.0150						
Zinc	BRL		mg/l	0.0050						
Copper	BRL		mg/l	0.0050						
Chromium	BRL		mg/l	0.0050						
Arsenic	BRL		mg/l	0.0040						
Cadmium	BRL		mg/l	0.0025						
Silver	BRL		mg/l	0.0050						
LCS (9071291-BS1)										
Prepared & Analyzed: 20-Jul-09										
Selenium	2.81		mg/l	0.0150	2.50		112	85-115		
Zinc	2.68		mg/l	0.0050	2.50		107	85-115		
Iron	2.72		mg/l	0.0150	2.50		109	85-115		
Lead	2.69		mg/l	0.0075	2.50		107	85-115		
Nickel	2.70		mg/l	0.0050	2.50		108	85-115		
Antimony	2.53		mg/l	0.0060	2.50		101	85-115		
Chromium	2.62		mg/l	0.0050	2.50		105	85-115		
Cadmium	2.53		mg/l	0.0025	2.50		101	85-115		
Arsenic	2.72		mg/l	0.0040	2.50		109	85-115		
Silver	2.43		mg/l	0.0050	2.50		97	85-115		
Copper	2.64		mg/l	0.0050	2.50		106	85-115		
Duplicate (9071291-DUP1)	**Source: SA97889-01**									
Prepared & Analyzed: 20-Jul-09										
Nickel	0.0016	J	mg/l	0.0050		0.0016			0	20
Zinc	0.0634	QR9	mg/l	0.0050		0.0480			28	20
Iron	0.435		mg/l	0.0150		0.438			0.6	20
Lead	BRL		mg/l	0.0075		BRL				20
Selenium	BRL		mg/l	0.0150		BRL				20
Antimony	BRL		mg/l	0.0060		BRL				20
Chromium	BRL		mg/l	0.0050		BRL				20
Silver	BRL		mg/l	0.0050		BRL				20
Cadmium	BRL		mg/l	0.0025		BRL				20
Copper	BRL		mg/l	0.0050		0.0022				20
Arsenic	BRL		mg/l	0.0040		BRL				20
Batch 9071292 - EPA200/SW7000 Series										
Blank (9071292-BLK1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Mercury	BRL		mg/l	0.00020						
LCS (9071292-BS1)										
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Mercury	0.00493		mg/l	0.00020	0.00500		99	85-115		
Duplicate (9071292-DUP1)	**Source: SA97889-01**									
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Mercury	BRL		mg/l	0.00020		BRL				20

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

* Reportable Detection Limit BRL = Below Reporting Limit

Total Metals by EPA 200 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071292 - EPA200/SW7000 Series										
Matrix Spike (9071292-MS1)	**Source: SA97889-01**									
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Mercury	0.00581		mg/l	0.00020	0.00500	BRL	116	75-125		
Post Spike (9071292-PS1)	**Source: SA97889-01**									
Prepared: 20-Jul-09 Analyzed: 21-Jul-09										
Mercury	0.00546		mg/l	0.00020	0.00500	BRL	109	85-115		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071254 - General Preparation										
Blank (9071254-BLK1)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	BRL		mg/l	0.005						
LCS (9071254-BS1)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.054		mg/l	0.005	0.0501		108	90-110		
Calibration Blank (9071254-CCB1)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.001		mg/l							
Calibration Blank (9071254-CCB2)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.001		mg/l							
Calibration Check (9071254-CCV1)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.053		mg/l		0.0501		106	90-110		
Calibration Check (9071254-CCV2)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.051		mg/l		0.0501		102	90-110		
Duplicate (9071254-DUP1)	**Source: SA97889-01**									
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	BRL		mg/l	0.005		BRL				20
Matrix Spike (9071254-MS1)	**Source: SA97889-01**									
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.045		mg/l	0.005	0.0501	BRL	90	80-120		
Matrix Spike Dup (9071254-MSD1)	**Source: SA97889-01**									
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.046		mg/l	0.005	0.0501	BRL	92	80-120	2	20
Reference (9071254-SRM1)										
Prepared & Analyzed: 17-Jul-09										
Hexavalent Chromium	0.026		mg/l	0.005'	0.0250		104	85-115		
Batch 9071255 - General Preparation										
Blank (9071255-BLK1)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	BRL		mg/l	0.020						
LCS (9071255-BS1)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.052		mg/l	0.020	0.0500		104	90-110		
Calibration Blank (9071255-CCB1)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.001		mg/l							
Calibration Blank (9071255-CCB2)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.001		mg/l							
Calibration Blank (9071255-CCB3)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.001		mg/l							

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071255 - General Preparation										
Calibration Blank (9071255-CCB3)										
Prepared & Analyzed: 17-Jul-09										
Calibration Check (9071255-CCV1)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.049		mg/l		0.0500		98	90-110		
Calibration Check (9071255-CCV2)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.049		mg/l		0.0500		98	90-110		
Calibration Check (9071255-CCV3)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.047		mg/l		0.0500		94	90-110		
Duplicate (9071255-DUP1)	**Source: SA97889-01**									
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	BRL		mg/l	0.200		BRL				20
Matrix Spike (9071255-MS1)	**Source: SA97889-01**									
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.470		mg/l	0.200	0.500	BRL	94	80-120		
Matrix Spike Dup (9071255-MSD1)	**Source: SA97889-01**									
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.530		mg/l	0.200	0.500	BRL	106	80-120	12	200
Reference (9071255-SRM1)										
Prepared & Analyzed: 17-Jul-09										
Total Residual Chlorine	0.103		mg/l	0.020	0.109		94	85-115		
Batch 9071291 - EPA 200 Series										
Blank (9071291-BLK1)										
Prepared & Analyzed: 20-Jul-09										
Trivalent Chromium	BRL		mg/l	0.0050						
Batch 9071344 - General Preparation										
Blank (9071344-BLK1)										
Prepared & Analyzed: 20-Jul-09										
Total Suspended Solids	BRL		mg/l	5.00						
Blank (9071344-BLK2)										
Prepared & Analyzed: 20-Jul-09										
Total Suspended Solids	BRL		mg/l	5.00						
Reference (9071344-SRM1)										
Prepared & Analyzed: 20-Jul-09										
Total Suspended Solids	90.0		mg/l	10.0	88.8		101	90-110		
Reference (9071344-SRM2)										
Prepared & Analyzed: 20-Jul-09										
Total Suspended Solids	86.0		mg/l	10.0	88.8		97	90-110		
Batch 9071403 - General Preparation										
Blank (9071403-BLK1)										
Prepared & Analyzed: 21-Jul-09										
Cyanide (total)	BRL		mg/l	0.0100						

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 9071403 - General Preparation										
Blank (9071403-BLK2)										
Prepared & Analyzed: 21-Jul-09										
Cyanide (total)	BRL		mg/l	0.0100						
LCS (9071403-BS1)										
Prepared & Analyzed: 21-Jul-09										
Cyanide (total)	0.294		mg/l	0.0100	0.300		98	90-110		
LCS (9071403-BS2)										
Prepared & Analyzed: 21-Jul-09										
Cyanide (total)	0.295		mg/l	0.0100	0.300		98	90-110		
Reference (9071403-SRM1)										
Prepared & Analyzed: 21-Jul-09										
Cyanide (total)	0.417		mg/l	0.0100	0.434		96	86.68-144.2		

Notes and Definitions

CAL2	Analyte percent drift/percent difference is greater than 30%, data is accepted due to all CCC analytes passing within the 20% Drift/Difference criteria
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QR9	RPD out of acceptance range. The batch is accepted based upon LCS and/or LCSD recovery.
R01	The Reporting Limit has been raised to account for matrix interference.
S02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ClHT	The method for residual chlorine indicates that samples should be analyzed immediately. 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous residual chlorine samples not analyzed in the field are considered out of hold time at the time of sample receipt.

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

Interpretation of Total Petroleum Hydrocarbon Report

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

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

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

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

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

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

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

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

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

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

Validated by:
Hanibal C. Tayeh, Ph.D.
June O'Connor
Nicole Leja

The following outlines the condition of all VPH samples contained within this report upon laboratory receipt.

Matrix	Deionized Water Ground Water		
Containers	☑ Satisfactory ☐ Broken ☐ Leaking		
Sample Preservative	Aqueous (acid-preserved)	☐ N/A ☑ pH≤2 ☐ pH>2 Comment:	
	Soil or Sediment	☑ N/A ☐ Samples not received in Methanol	ml Methanol/g soil ☐ 1:1 +/-25% ☐ Other:
		☐ Samples received in Methanol: ☐ covering soil/sediment ☐ not covering soil/sediment	
		☐ Samples received in air-tight container:	
Temperature	☑ Received on ice ☑ Received at 4 ± 2 °C ☐ Other: °C		

Were all QA/QC procedures followed as required by the VPH method? *Yes*
Were any significant modifications made to the VPH method as specified in section 11.3? *No *see below*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*
* Yes, if PID and FID surrogate recoveries are listed as n/a, then that sample was run via GCMS using all QC criteria specified in the method

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

Authorized by:

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

MADEP MCP ANALYTICAL METHOD REPORT CERTIFICATION FORM

Laboratory Name: Spectrum Analytical, Inc. - Agawam, MA	Project #: 91-010824.04
Project Location: Pride - Longmeadow St. - Longmeadow, MA	MADEP RTN [1]:

This form provides certifications for the following data set:
SA97889-01 through SA97889-02

Sample matrices:	Deionized Water Ground Water				
MCP SW-846 Methods Used	☑ 8260B	☐ 8151A	☐ 8330	☐ 6010B	☑ 7470A/1A
	☐ 8270C	☐ 8081A	☑ VPH	☐ 6020	☐ 9014M [2]
	☐ 8082	☐ 8021B	☐ EPH	☐ 7000S [3]	☑ 7196A

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, C and D is required for "Presumptive Certainty" status

A	Were all samples received by the laboratory in a condition consistent with that described on the Chain of Custody documentation for the data set?	☑ Yes	☐ No
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	☐ No
C	Does the data included in this report meet all the analytical requirements for "Presumptive Certainty", as described in Section 2.0 (a), (b), (c) and (d) of the MADEP document CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	☑ Yes	☐ No
D	***VPH and EPH methods only***: Was the VPH or EPH method conducted without significant modifications (see Section 11.3 of respective methods)?	☑ Yes	☐ No

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

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

All negative responses are addressed in a case narrative on the cover page of this report.

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.

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

Date: 7/21/2009

SA97889

SPECTRUM ANALYTICAL, INC. Featuring HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 2

Special Handling:
☐ Standard TAT - 7 to 10 business days
☑ Rush TAT - Date Needed 7/21/09
All TATs subject to laboratory approval
Min. 24-hour notification needed for rushes
Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS Agawam

Invoice To: ECS-Agawam

Project No. 91-010824.04
Site Name: Ride Longmeadow
Location: 1730 Longmeadow St. Longmeadow State: MA
Sampler(s): N. Allen, T. Simmons

Project Mgr: Lori McCarthy
Telephone #: 413-233-9443
P.O. No.:
RQN: 0003

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8=$NaHSO_4$ 9= 4°C/ICE 10= 11=

List preservative code below: 9 9 3 9 5 9 2 9 2 5 1 9 1 3 9

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

G=Grab C=Composite

QA/QC Reporting Notes: (check as needed)
☒ Provide MA DEP MCP CAM Report
☐ Provide CT DPH RCP Report
QA/QC Reporting Level
☒ Standard ☐ No QC
☐ DQA
State specific reporting standards: Method 1 GW-1

Lab Id	Sample Id	Date	Time	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Total Suspended Solids	Total Residual Chlorine	TPH 1664	Total Cyanide	8260B full list	VPH	EDB 504.1	PCBs 608
97889-01	ECS-3	7/17/09	945	G	GW	6	8		3	✓	✓	✓	✓	✓	✓	✓	✓
↓ 02	TB	↓	am	G	X1	1									✓		

EDD Format
☒ E-mail to: lmccarthy@ecsconsult.com

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	7/17/09	11:15

Condition upon receipt: ☑ Iced ☐ Ambient ☑ °C 4.8

SA-97889

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 2 of 2

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed 7/21/09
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: ECS-Agawam

Invoice To: ECS-Agawam

Project Mgr.:

Telephone #:

P.O. No.: RQN: 0003

Project No.: 91-011824.04

Site Name: Pride Longmeadow

Location: 1730 Longmeadow St Longmeadow MA

Sampler(s): N. Allen, T. Simmons

1=$Na_2S_2O_3$ 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8=$NaHSO_4$ 9= ice/4°C 10= 11=

List preservative code below: 9 9 9 9

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

G=Grab C=Composite

Lab Id	Sample Id	Date	Time	Type	Matrix	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	6025 full list	Chromium VI	Total Metals*	HOLD/7470 Reset
97889-01	ECS-3	7/17/09	945	G	GW		1		2	X	X	X	X

QA/QC Reporting Notes: (check as needed)
- ☒ Provide MA DEP MCP CAM Report
- ☐ Provide CT DPH RCP Report

QA/QC Reporting Level
- ☒ Standard ☐ No QC
- ☐ Other

State-specific reporting standards: Method 1 GW-1

* Antimony, Arsenic, Cadmium, Chromium III, Copper, lead, mercury, nickel, selenium, silver, Zinc, iron

Per client request

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	7/17/09	11:15

EDD Format
☒ E-mail to: tmccarthy@ecsconsult.com

Condition upon receipt: ☒ Iced ☐ Ambient ☒ °C 4.8

ATTACHMENT III

STREAMSTATS UNGAUGED SITE REPORT AND MAP

StreamStats Print Page

1730 Longmeadow St., Longmeadow

8/4/2009 10:07:50 AM

USGS Massachusetts StreamStats

Streamstats Ungaged Site Report

Date: Tue Aug 4 2009 09:57:56
Site Location: Massachusetts
NAD83 Latitude: 42.0282 (42 01 41)
NAD83 Longitude: -72.5926 (-72 35 33)
NAD27 Latitude: 42.0281 (42 01 41)
NAD27 Longitude: -72.5930 (-72 35 34)
Drainage Area: 0.75 mi2

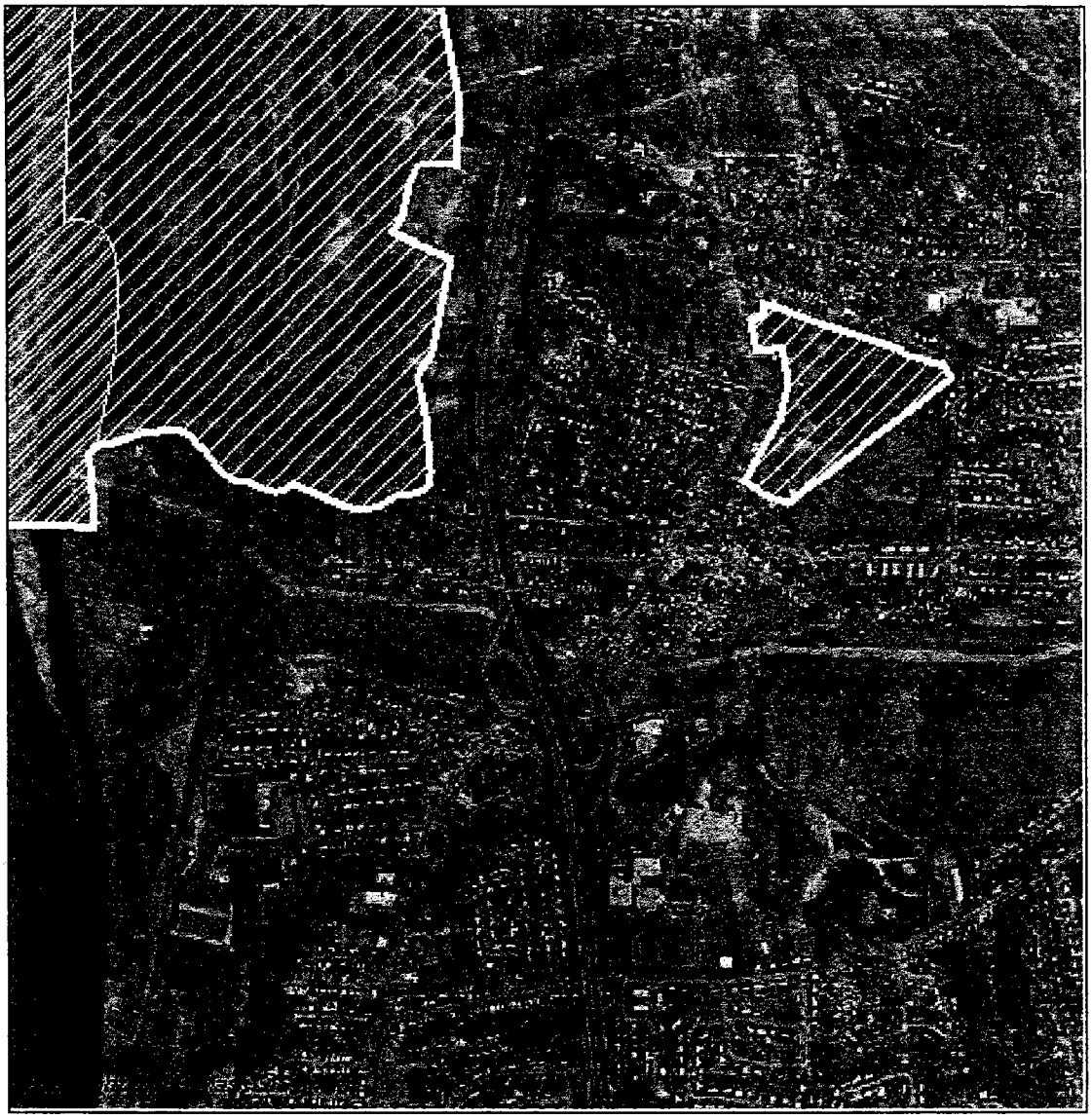
Low Flow Basin Characteristics			
100% Statewide Low Flow (0.75 mi2)			
Parameter	**Value**	**Regression Equation Valid Range**	
		Min	**Max**
Drainage Area (square miles)	0.75 (below min value 1.61)	1.61	149
Mean Basin Slope from 250K DEM (percent)	0.38	0.32	24.6
Stratified Drift per Stream Length (square mile per mile)	0.36	0	1.29
Massachusetts Region (dimensionless)	1	0	1

Warning: Some parameters are outside the suggested range. Estimates will be extrapolations with unknown errors.

Streamflow Statistics					
Statistic	**Flow (ft^3/s)**	**Prediction Error (percent)**	**Equivalent years of record**	**90-Percent Prediction Interval**	
				Minimum	**Maximum**
D50	0.71				
D60	0.51				
D70	0.45				
D75	0.38				
D80	0.25				
D85	0.17				
D90	0.11				
D95	0.0568				
D98	0.0446				
D99	0.0309				
M7D2Y	0.078				
AUGD50	0.23				
M7D10Y	0.0253				

ATTACHMENT IV

NHESP 2008 ESTIMATED HABITAT FOR RARE WILDLIFE AND PRIORITY HABITATS FOR STATE-PROTECTED RARE SPECIES MAP



600 m (1:24000)

Source: MassGIS (www.mass.gov/mgis). Maps and photos are for planning purposes only.

WARNING: This map does not meet national map accuracy standards, and cannot be used for engineering purposes. Please consult conditions of use at http://www.state.ma.us/mgis/

Pride Conver

1730 Longmeadow S

☑ **NHESP Priority Habitat**

NHESP MA Priori
Habitats for State
Protected Rare Sp

☑ **NHESP Estimated Habi**

NHESP MA Estim
Habitats of Rare V

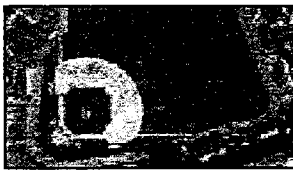
☑ **NHESP Certified Verna**

NHESP MA Certif
Vernal Pools

☑ **Areas of Critical Envir**

Areas of Critical
Environmental
Concern..ACECs

☑ **Black and White Ortho**



☑ **MA Towns Survey**

Massachusetts To
Boundaries from
Points
TOWNS
INTERSTATE
COAST