UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region 1
5 Post Office Square, Suite 100
BOSTON, MA 02109-3912

CERTIFIED MAIL RETURN RECEIPT REQUESTED

SEP 13 2012

Suzanne Martin Owner
Cell Signaling Technology Inc.
3 Trask Lane
Danvers, Massachusetts 01923

Re: Authorization to discharge under the Remediation General Permit (RGP) – MAG910000. Cell Signaling Technology Inc., site located at 32 Tozer Road, Beverly Massachusetts 01915, Essex County ; Authorization # MAG910554

Dear Ms. Martin:

Based on the review of a Notice of Intent (NOI) submitted on behalf of Tozer Road Limited Liability Company, by the firm Irving Engineers, Inc., for the site referenced above, the U.S. Environmental Protection Agency (EPA) hereby authorizes you, as the named Owner and Operator, to discharge in accordance with the provisions of the RGP at that site. Your authorization number is listed above.

The checklist enclosed with this RGP authorization indicates the pollutants which you are required to monitor. Also indicated on the checklist are the effluent limits, test methods and minimum levels (MLs) for each pollutant. Please note that the checklist does not represent the complete requirements of the RGP. Operators must comply with all of the applicable requirements of this permit, including influent and effluent monitoring, narrative water quality standards, record keeping, and reporting requirements, found in Parts I and II, and Appendices I – VIII of the RGP. See EPA's website for the complete RGP and other information at: http://www.epa.gov/region1/npdes/mass.html#dgp.

Please note the enclosed checklist includes parameters that exceeded Appendix III limits. The checklist also includes other parameters for which your laboratory reports indicated there was insufficient sensitivity to detect these parameters at the minimum levels established in Appendix VI of the RGP.

Also, please note that the metals included on the checklist are dilution dependent pollutants and subject to limitations based on a dilution factor range (DFR). With the absence of dilution to wetlands, EPA determined that the DFR for each parameter is in the one and five (1-5) range. (See the RGP Appendix IV for Massachusetts facilities) Therefore, the limits for arsenic of 10 ug/L and iron of 1,000 ug/L, are required to achieve permit compliance at your site.

Finally, please note the checklist of pollutants attached to this authorization is subject to a recertification if the operations at the site result in a discharge lasting longer than six months. A recertification can be submitted to EPA within six (6) to twelve (12) months of operations in accordance with the 2010 RGP regulations.

This general permit and authorization to discharge will expire on September 9, 2015. You have reported that this project will terminate on November 30, 2012. If for any reason the discharge terminates sooner you are required to submit a Notice of Termination (NOT) to the attention of the contact person indicated below within 30 days of project completion.

Thank you in advance for your cooperation in this matter. Please contact Victor Alvarez at 617-918-1572 or Alvarez.Victor@epa.gov, if you have any questions.

Sincerely,

Thelma Murphy, Manager
Storm Water and Construction
Permits Section

Enclosure

cc: Robert Kubit, MassDEP
David Lane, Danvers DPW
Krista Molettieri, Irwin Engineers Inc.

2010 Remediation General Permit
Summary of Monitoring Parameters[1]

NPDES Authorization Number:	**MAG910544**
Authorization Issued:	September, 2012
Facility/Site Name:	Cell Signaling Technology Inc.
Facility/Site Address:	32 Tozer Road, Beverly, MA 01915, Essex County
	Email address of owner: smartin@cellsignal.com
Legal Name of Operator:	Clean Harbors Inc. Supervised by Todd Berry 339-788-0761
Operator contact name, title, and Address:	Operator's liability is assumed by the Owner or representative Ms. Suzanne Martin. The site's overall supervision rests with LSP or record Mr. J Andrew Irwin of Irwin Engineers, located at 33 West Central Street, Natick, MA 01760.
	Email: www.irwinengineers.com;,Telephone n:508 6538007 Ex. 15
Estimated date of clean up Completion:	November 30, 2012
Category and Sub-Category:	Category III- Contaminated Construction Dewatering. Subcategory B. Known Contaminated Sites
RGP Termination Date:	September 10, 2015
Receiving Water:	Wetlands

Monitoring & Limits are applicable if checked. All samples are to be collected as grab samples

	Parameter	**Effluent Limit/Method#/ML** (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
√	1. Total Suspended Solids (TSS)	30 milligrams/liter (mg/L) **, 50 mg/L for hydrostatic testing **, Me#60.2/ML5ug/L
	2. Total Residual Chlorine (TRC) [1]	Freshwater = 11 ug/L ** Saltwater = 7.5 ug/L **/ Me#330.5/ML 20ug/L
	3. Total Petroleum Hydrocarbons (TPH)	5.0 mg/L/ Me# 1664A/ML 5.0mg/L
	4. Cyanide (CN) [2, 3]	Freshwater = 5.2 ug/l ** Saltwater = 1.0 ug/L **/ Me#335.4/ML 10ug/L
	5. Benzene (B)	5ug/L /50.0 ug/L for hydrostatic testing only/ Me#8260C/ML 2 ug/L
	6. Toluene (T)	(limited as ug/L total BTEX)/ Me#8260C/ ML 2ug/L
	7. Ethylbenzene (E)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	8. (m,p,o) Xylenes (X)	(limited as ug/L total BTEX) Me#8260C/ ML 2ug/L
√	9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]	100 ug/L/ Me#8260C/ ML 2ug/L
√	10. Ethylene Dibromide (EDB) (1,2- Dibromoethane)	0.05 ug/l/ Me#8260C/ ML 10ug/L
√	11. Methyl-tert-Butyl Ether (MtBE)	70.0 ug/l/Me#8260C/ML 10ug/L
√	12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
√	13. tert-Amyl Methyl Ether (TAME)	Monitor Only(ug/L)/Me#8260C/ML 10ug/L
√	14. Naphthalene [5]	20 ug/L /Me#8260C/ML 2ug/L
√	15. Carbon Tetrachloride	4.4 ug/L /Me#8260C/ ML 5ug/L
	16. 1,2 Dichlorobenzene (o-DCB)	600 ug/L /Me#8260C/ ML 5ug/L
	17. 1,3 Dichlorobenzene (m-DCB)	320 ug/L /Me#8260C/ ML 5ug/L
√	18. 1,4 Dichlorobenzene (p-DCB)	5.0 ug/L /Me#8260C/ ML 5ug/L
	18a. Total dichlorobenzene	763 ug/L - NH only /Me#8260C/ ML 5ug/L
	19. 1,1 Dichloroethane (DCA)	70 ug/L /Me#8260C/ ML 5ug/L
√	20. 1,2 Dichloroethane (DCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
√	21. 1,1 Dichloroethene (DCE)	3.2 ug/L/Me#8260C/ ML 5ug/L
√	22. cis-1,2 Dichloroethene (DCE)	70 ug/L/Me#8260C/ ML 5ug/L
√	23. Methylene Chloride	4.6 ug/L/Me#8260C/ ML 5ug/L
√	24. Tetrachloroethene (PCE)	5.0 ug/L/Me#8260C/ ML 5ug/L
	25. 1,1,1 Trichloro-ethane (TCA)	200 ug/L/Me#8260C/ ML 5ug/L
√	26. 1,1,2 Trichloro-ethane (TCA)	5.0 ug/L /Me#8260C/ ML 5ug/L
√	27. Trichloroethene (TCE)	5.0 ug/L /Me#8260C/ ML 5ug/L
√	28. Vinyl Chloride (Chloroethene)	2.0 ug/L /Me#8260C/ ML 5ug/L
√	29. Acetone	Monitor Only(ug/L)/Me#8260C/ML 50ug/L
√	30. 1,4 Dioxane	Monitor Only /Me#1624C/ML 50ug/L
	31. Total Phenols	300 ug/L Me#420.1&420.2/ML 2 ug/L/ Me# 420.4 /ML 50ug/L
√	32. Pentachlorophenol (PCP)	1.0 ug/L /Me#8270D/ML 5ug/L,Me#604 &625/ML 10ug/L
	33. Total Phthalates (Phthalate esters) [6]	3.0 ug/L ** /Me#8270D/ML 5ug/L, Me#606/ML 10ug/L& Me#625/ML 5ug/L
	34. Bis (2-Ethylhexyl) Phthalate [Di- (ethylhexyl)	6.0 ug/L /Me#8270D/ML 5ug/L,Me#606/ML 10ug/L & Me#625/ML

	Parameter	Effluent Limit/Method#/ML (All Effluent Limits are shown as Daily Maximum Limit, unless denoted by a **, in that case it will be a Monthly Average Limit)
	Phthalate]	5ug/L
	35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)	10.0 ug/L
	a. Benzo(a) Anthracene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	b. Benzo(a) Pyrene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	c. Benzo(b)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	d. Benzo(k)Fluoranthene [7]	0.0038 ug/L /Me#8270D/ ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	e. Chrysene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	f. Dibenzo(a,h)anthracene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML 5ug/L
	g. Indeno(1,2,3-cd) Pyrene [7]	0.0038 ug/L /Me#8270D/ML 5ug/L, Me#610/ML 5ug/L& Me#625/ML5ug/L
	36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)	100 ug/L
	h. Acenaphthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	i. Acenaphthylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	j. Anthracene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	k. Benzo(ghi) Perylene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	l. Fluoranthene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	m. Fluorene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	n. Naphthalene [5]	20 ug/l / Me#8270/ML 5ug/L, Me#610/ML 5ug/L & Me#625/ML 5ug/L
	o. Phenanthrene	X/Me#8270D/ML 5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	p. Pyrene	X/Me#8270D/ML5ug/L,Me#610/ML 5ug/L & Me#625/ML 5ug/L
	37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	0.000064 ug/L/Me# 608/ ML 0.5 ug/L
√	38. Chloride	Monitor only/Me# 300.0/ ML 100 ug/L

	Metal parameter	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11/12]		Minimum level=ML	
		Freshwater	Saltwater		
	39. Antimony	5.6/ML 10			
√	40. Arsenic **	10/ML20	36/ML 20		
	41. Cadmium **	0.2/ML10	8.9/ML 10		
	42. Chromium III (trivalent) **	48.8/ML15	100/ML 15		
	43. Chromium VI (hexavalent) **	11.4/ML10	50.3/ML 10		
	44. Copper **	5.2/ML15	3.7/ML 15		
	45. Lead **	1.3/ML20	8.5/ML 20		
	46. Mercury **	0.9/ML0.2	1.1/ML 0.2		
	47. Nickel **	29/ML20	8.2/ML 20		
	48. Selenium **	5/ML20	71/ML 20		
	49. Silver	1.2/ML10	2.2/ML 10		
	50. Zinc **	66.6/ML15	85.6/ML 15		
√	51. Iron	1,000/ML 20			

	Other Parameters	Limit
√	52. Instantaneous Flow	Site specific in CFS
√	53. Total Flow	Site specific in CFS
√	54. pH Range for Class A & Class B Waters in MA	6.5-8.3; 1/Month/Grab[13]
	55. pH Range for Class SA & Class SB Waters in MA	6.5-8.3; 1/Month/Grab[13]
	56. pH Range for Class B Waters in NH	6.5-8; 1/Month/Grab[13]
	57. Daily maximum temperature - Warm water fisheries	83°F; 1/Month/Grab[14]
	58. Daily maximum temperature - Cold water fisheries	68°F; 1/Month/Grab[14]
	59. Maximum Change in Temperature in MA - Any Class A water body	1.5°F; 1/Month/Grab[14]
	60. Maximum Change in Temperature in MA - Any Class B water body- Warm Water	5°F; 1/Month/Grab[14]
	61. Maximum Change in Temperature in MA – Any Class B water body - Cold water and Lakes/Ponds	3°F; 1/Month/Grab[14]
	62. Maximum Change in Temperature in MA – Any Class SA water body - Coastal	1.5°F; 1/Month/Grab[14]
	63. Maximum Change in Temperature in MA – Any Class SB water body - July to September	1.5°F; 1/Month/Grab[14]
	64. Maximum Change in Temperature in MA –Any Class SB water body - October to June	4°F; 1/Month/Grab[14]

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., Method 330.5, 20 ug/l).
[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.
[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).
[4] BTEX = sum of Benzene, Toluene, Ethylbenzene, and total Xylenes.
[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.
[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.
[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).
[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.
[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.
[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).
[13] pH sampling for compliance with permit limits may be performed using field methods as provided for in EPA test Method 150.1.

B. Suggested Form for Notice of Intent (NOI) for the Remediation General Permit

1. General facility/site information. Please provide the following information about the site:

a) Name of **facility/site**: Cell Signaling Technology Inc.		**Facility/site** mailing address:		
Location of **facility/site**: longitude: -70.884 latitude: 42.572	Facility SIC code(s): 8731	Street: 3 Trask Lane		
b) Name of **facility/site owner:**		Town: Danvers		
Email address of facility/site owner: Tozer Road Limated Liability Company smartin@cellsignal.com		State: MA	Zip: 01923	County: Essex
Telephone no. of facility/site **owner**: 978-867-2414				
Fax no. of facility/site **owner**: 978-867-2488		**Owner** is (check one): 1. Federal ○ 2. State/Tribal ○ 3. Private ◉ 4. Other ○ if so, describe:		
Address of **owner** (if different from site):				
Street: 3 Trask Lane				
Town: Danvers	State: MA	Zip: 01923	County: Essex	
c) Legal name of **operator**:		**Operator** telephone no: 978-664-9500		
Columbia Construction Company		**Operator** fax no.: 978-664-8548	**Operator** email: sgallant@columbiacc.com	
Operator contact name and title: Shawn Gallant, Project Manager				
Address of **operator** (if different from owner):		Street: 100 Riverpark Dr. PO Box 220		
Town: North Reading	State: MA	Zip: 01864	County: Middlesex	

d) Check Y for "yes" or N for "no" for the following:
1. Has a prior NPDES permit exclusion been granted for the discharge? Y ○ N ◉, if Y, number:
2. Has a prior NPDES application (Form 1 & 2C) ever been filed for the discharge?
Y ○ N ◉, if Y, date and tracking #:
3. Is the discharge a "new discharge" as defined by 40 CFR 122.2? Y ◉ N ○
4. For sites in Massachusetts, is the discharge covered under the Massachusetts Contingency Plan (MCP) and exempt from state permitting? Y ◉ N ○

e) Is site/facility subject to any State permitting, license, or other action which is causing the generation of discharge? Y ○ N ◉
If Y, 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 General Permit? Y ○ N ◉,
if Y, number:
2. Final Dewatering General Permit? Y ○ N ◉,
if Y, number:
3. EPA Construction General Permit? Y ◉ N ○,
if Y, number: MAR12AA54
4. Individual NPDES permit? Y ○ N ◉,
if Y, number:
5. any other water quality related individual or general permit? Y ○
N ◉, if Y, number:

g) Is the site/facility located within or does it discharge to an Area of Critical Environmental Concern (ACEC)? Y ○ N ◉

h) Based on the facility/site information and any historical sampling data, identify the sub-category into which the potential discharge falls.

Activity Category	**Activity Sub-Category**
I - Petroleum Related Site Remediation	A. Gasoline Only Sites ☐ B. Fuel Oils and Other Oil Sites (including Residential Non-Business Remediation Discharges) ☐ C. Petroleum Sites with Additional Contamination ☐
II - Non Petroleum Site Remediation	A. Volatile Organic Compound (VOC) Only Sites ☐ B. VOC Sites with Additional Contamination ☐ C. Primarily Heavy Metal Sites ☐
III - Contaminated Construction Dewatering	A. General Urban Fill Sites ☐ B. Known Contaminated Sites ☒

IV - Miscellaneous Related Discharges	A. Aquifer Pump Testing to Evaluate Formerly Contaminated Sites ☐ B. Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites ☐ C. Hydrostatic Testing of Pipelines and Tanks ☐ D. Long-Term Remediation of Contaminated Sumps and Dikes ☐ E. Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit) ☐

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

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

CONSTRUCTION EXCAVATION DEWATERING

b) Provide the following information about each discharge:

1) Number of discharge points: 1

2) What is the **maximum** and **average flow rate** of discharge (in cubic feet per second, ft^3/s)?
Max. flow .0223 Is maximum flow a **design value**? Y ◉ N ○
Average flow (include units) .01784 Is average flow a design value or estimate? estimate

3) Latitude and longitude of each discharge within 100 feet:
pt.1: lat 42.572 long -70.884 pt.2: lat. long. ;
pt.3: lat long pt.4: lat. long. ;
pt.5: lat long pt.6: lat. long. ;
pt.7: lat long pt.8: lat. long. ; etc.

4) If hydrostatic testing, total volume of the discharge (gals):

5) Is the discharge intermittent ◉ or seasonal ○ ?
Is discharge ongoing? Y ○ N ◉

c) Expected dates of discharge (mm/dd/yy): start Sep 3, 2012 end Nov 30, 2012

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). See Attached

3. Contaminant information.

a) Based on the sub-category selected (see Appendix III), indicate whether each listed chemical is **believed present** or **believed absent** in the potential discharge. Attach additional sheets as needed.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
1. Total Suspended Solids (TSS)		☐	☒	1	Grab	SM2540D	5000 ug/l	15000	0.227	15000	0.17
2. Total Residual Chlorine (TRC)		☒	☐								
3. Total Petroleum Hydrocarbons (TPH)		☒	☐								
4. Cyanide (CN)	57125	☒	☐								
5. Benzene (B)	71432	☒	☐								
6. Toluene (T)	108883	☒	☐								
7. Ethylbenzene (E)	100414	☒	☐								
8. (m,p,o) Xylenes (X)	108883; 106423; 95476; 1330207	☒	☐								
9. Total BTEX [2]	n/a	☒	☐								
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane) [3]	106934	☒	☐								
11. Methyl-tert-Butyl Ether (MtBE)	1634044	☒	☐								
12. tert-Butyl Alcohol (TBA) (Tertiary-Butanol)	75650	☒	☐								

***** Numbering system is provided to allow cross-referencing to Effluent Limits and Monitoring Requirements by Sub-Category included in Appendix III, as well as the Test Methods and Minimum Levels associated with each parameter provided in Appendix VI.

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

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

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
13. tert-Amyl Methyl Ether (TAME)	9940508	☒	☐								
14. Naphthalene	91203	☒	☐								
15. Carbon Tetrachloride	56235	☒	☐								
16. 1,2 Dichlorobenzene (o-DCB)	95501	☒	☐								
17. 1,3 Dichlorobenzene (m-DCB)	541731	☒	☐								
18. 1,4 Dichlorobenzene (p-DCB)	106467	☒	☐								
18a. Total dichlorobenzene		☒	☐								
19. 1,1 Dichloroethane (DCA)	75343	☒	☐								
20. 1,2 Dichloroethane (DCA)	107062	☒	☐								
21. 1,1 Dichloroethene (DCE)	75354	☒	☐								
22. cis-1,2 Dichloroethene (DCE)	156592	☐	☒	4	Grab	SW846 8260C	250 ug/l	3730	0.056	2230	0.025
23. Methylene Chloride	75092	☒	☐								
24. Tetrachloroethene (PCE)	127184	☐	☒	4	Grab	SW846 8260C	250 ug/l	10100	0.153	5360	0.061
25. 1,1,1 Trichloro-ethane (TCA)	71556	☒	☐								
26. 1,1,2 Trichloro-ethane (TCA)	79005	☒	☐								
27. Trichloroethene (TCE)	79016	☐	☒	4	Grab	SW846 8260C	250 ug/l	1790	0.027	935	0.011

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
28. Vinyl Chloride (Chloroethene)	75014	☒	☐								
29. Acetone	67641	☒	☐								
30. 1,4 Dioxane	123911	☒	☐								
31. Total Phenols	108952	☒	☐								
32. Pentachlorophenol (PCP)	87865	☒	☐								
33. Total Phthalates (Phthalate esters) [4]		☒	☐								
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117817	☒	☐								
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								
a. Benzo(a) Anthracene	56553	☒	☐								
b. Benzo(a) Pyrene	50328	☒	☐								
c. Benzo(b)Fluoranthene	205992	☒	☐								
d. Benzo(k)Fluoranthene	207089	☒	☐								
e. Chrysene	21801	☒	☐								
f. Dibenzo(a,h)anthracene	53703	☒	☐								
g. Indeno(1,2,3-cd) Pyrene	193395	☒	☐								
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		☒	☐								

[4] The sum of individual phthalate compounds.

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
h. Acenaphthene	83329	☒	☐								
i. Acenaphthylene	208968	☒	☐								
j. Anthracene	120127	☒	☐								
k. Benzo(ghi) Perylene	191242	☒	☐								
l. Fluoranthene	206440	☒	☐								
m. Fluorene	86737	☒	☐								
n. Naphthalene	91203	☒	☐								
o. Phenanthrene	85018	☒	☐								
p. Pyrene	129000	☒	☐								
37. Total Polychlorinated Biphenyls (PCBs)	85687; 84742; 117840; 84662; 131113; 117817.	☒	☐								
38. Chloride	16887006	☐	☒	1	Grab	EPA 300	10000 ug/l	489000	7.4	489000	5.55
39. Antimony	7440360	☒	☐								
40. Arsenic	7440382	☐	☒	3	Grab	SW846 6010C	4 ug/l	5	0.000076	4.4	0.000050
41. Cadmium	7440439	☒	☐								
42. Chromium III (trivalent)	16065831	☒	☐								
43. Chromium VI (hexavalent)	18540299	☒	☐								
44. Copper	7440508	☒	☐								
45. Lead	7439921	☒	☐								
46. Mercury	7439976	☒	☐								
47. Nickel	7440020	☒	☐								
48. Selenium	7782492	☒	☐								
49. Silver	7440224	☒	☐								
50. Zinc	7440666	☒	☐								
51. Iron	7439896	☐	☒	3	Grab	SW846 6010C	15 ug/l	2830	0.043	1840	0.021
Other (describe):		☒	☐								

Parameter *	CAS Number	Believed Absent	Believed Present	# of Samples	Sample Type (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)
		☐	☐								
		☐	☐								

b) For discharges where **metals** are believed present, please fill out the following (attach results of any calculations):

Step 1: Do any of the metals in the influent exceed the effluent limits in Appendix III (i.e., the limits set at zero dilution)? Y ◉ N ○	If yes, which metals? Iron
Step 2: For any metals which 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? Metal: Iron DF: 0 Metal: DF: Metal: DF: Metal: DF: Etc.	Look up the limit calculated at the corresponding dilution factor in **Appendix IV.** Do any of the metals in the **influent** have the potential to exceed the corresponding **effluent** limits in Appendix IV (i.e., is the influent concentration above the limit set at the calculated dilution factor)? Y ◉ N ○ If Y, list which metals: Iron

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

a) A description of the treatment system, including a schematic of the proposed or existing treatment system:

Batch processing of accumulated water with precipitation and settling iron, solids filtration and GAC filtration for removal of VOCs.

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

c) Proposed **average** and **maximum flow rates** (gallons per minute) for the discharge and the **design flow rate**(s) (gallons per minute) of the treatment system:
Average flow rate of discharge 25 gpm Maximum flow rate of treatment system 40 gpm
Design flow rate of treatment system 40 gpm

d) A description of chemical additives being used or planned to be used (attach MSDS sheets):

Low dose batch addition of 1.5 quarts of Hydrogen Peroxide 1% per 4000 gallons of ground water for oxidation and precipitation of Iron in Frac tank

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

a) Identify the discharge pathway:	Direct to receiving water ☐	Within facility (sewer) ☐	Storm drain ☒	Wetlands ☐	Other (describe):

b) Provide a narrative description of the discharge pathway, including the name(s) of the receiving waters:

Storm drain to unnamed brook to Shoe Pond and Bass 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 SB

e) Provide the reported or calculated seven day-ten year low flow (7Q10) of the receiving water N/A intermittent streams 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? Y ○ N ⊙ If yes, for which pollutant(s)?

Is there a final TMDL? Y ○ N ⊙ If yes, for which pollutant(s)?

6. ESA and NHPA Eligibility.

Please provide the following information according to requirements of Permit Parts I.A.4 and I.A.5 Appendices II and VII.

a) Using the instructions in Appendix VII and information on Appendix II, under which criterion listed in Part I.C are you eligible for coverage under this general permit?

A (●) B ( ) C ( ) D ( ) E ( ) F ( )

b) If you selected Criterion D or F, has consultation with the federal services been completed? Y ( ) N ( ) Underway ( )

c) If consultation with U.S. Fish and Wildlife Service and/or NOAA Fisheries Service was completed, was a written concurrence finding that the discharge is "not likely to adversely affect" listed species or critical habitat received? Y ( ) N ( )

d) Attach documentation of ESA eligibility as described in the NOI instructions and required by Appendix VII, Part I.C, Step 4.

e) Using the instructions in Appendix VII, under which criterion listed in Part II.C are you eligible for coverage under this general permit?

1 (●) 2 ( ) 3 ( )

f) If Criterion 3 was selected, attach all written correspondence with the State or Tribal historic preservation officers, including any terms and conditions that outline measures the applicant must follow to mitigate or prevent adverse effects due to activities regulated by the RGP.

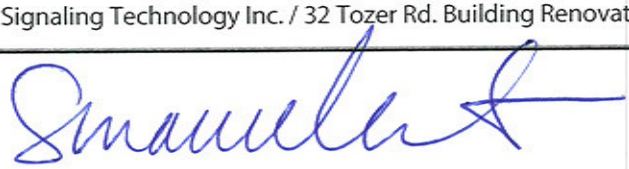
7. Supplemental information.

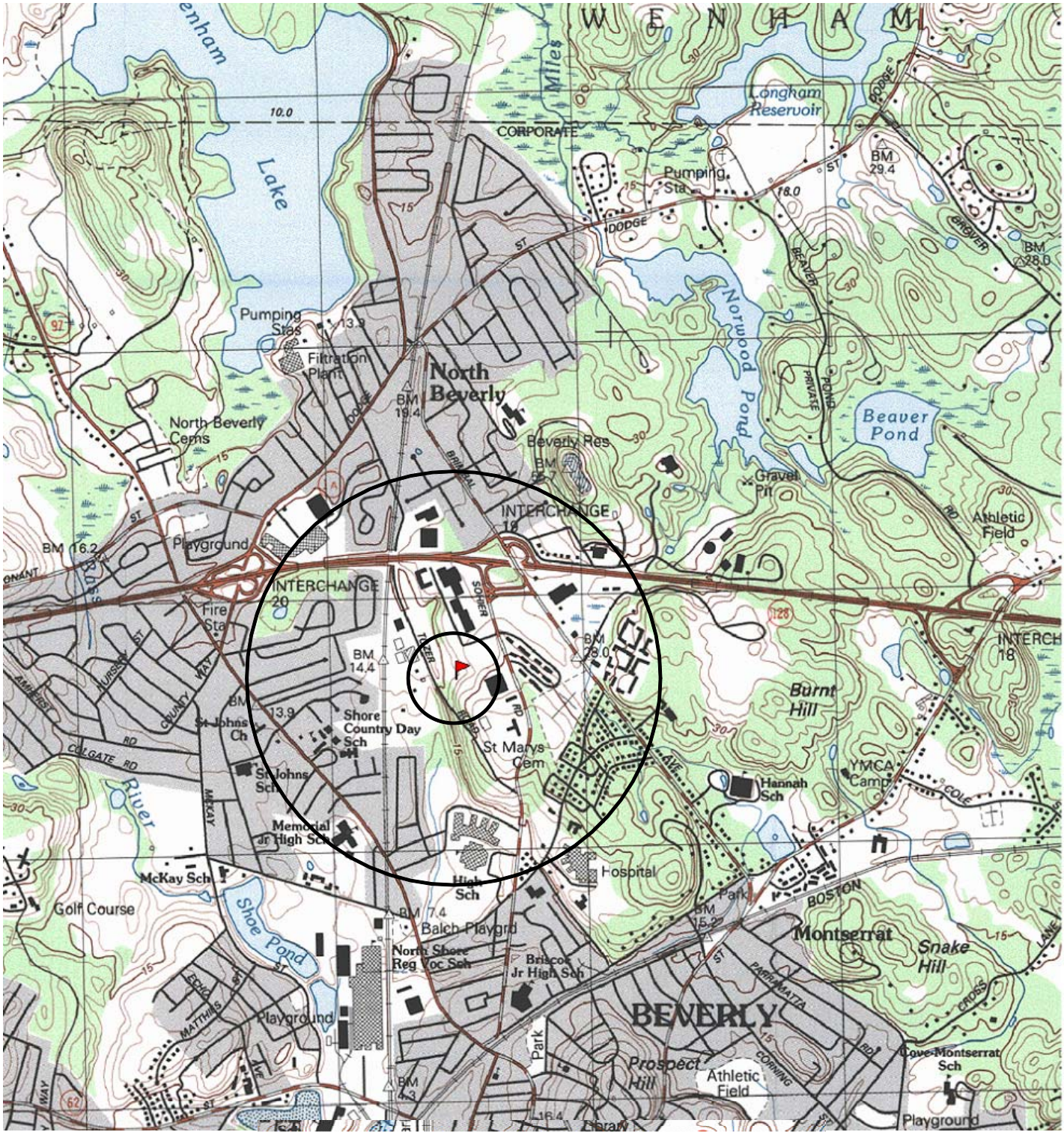
Please provide any supplemental information. Attach any analytical data used to support the application. Attach any certification(s) required by the general permit.

Property is known by MCP disposal site RTN 3-30976 (Downgradient Property Status) and RTN 3-485 (Remedy Operation Status)
Attached:
Site maps showing discharge location and surrounding area
Endangered species list for Essex County
Analytical data from most impacted monitoring well MW-2
Analytical data from testing of accumulated groundwater for off-site shipment
Proposed treatment system process flow diagram and schematic
MSDS for 1% Hydrogen Peroxide

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:	Cell Signaling Technology Inc. / 32 Tozer Rd. Building Renovation Construction site
Operator signature:	
Printed Name &Title:	SUZANNE MARTIN, Laboratory Manager, Safety Officer
Date:	8/20/2012



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NOTE:

LOCUS CIRCLES FOR 500 FT AND 0.5 MILE RADIUS

IRWIN Engineers
CHEMICAL & ENVIRONMENTAL
33 West Central Street
Natick, MA 01760
(508) 653-8007

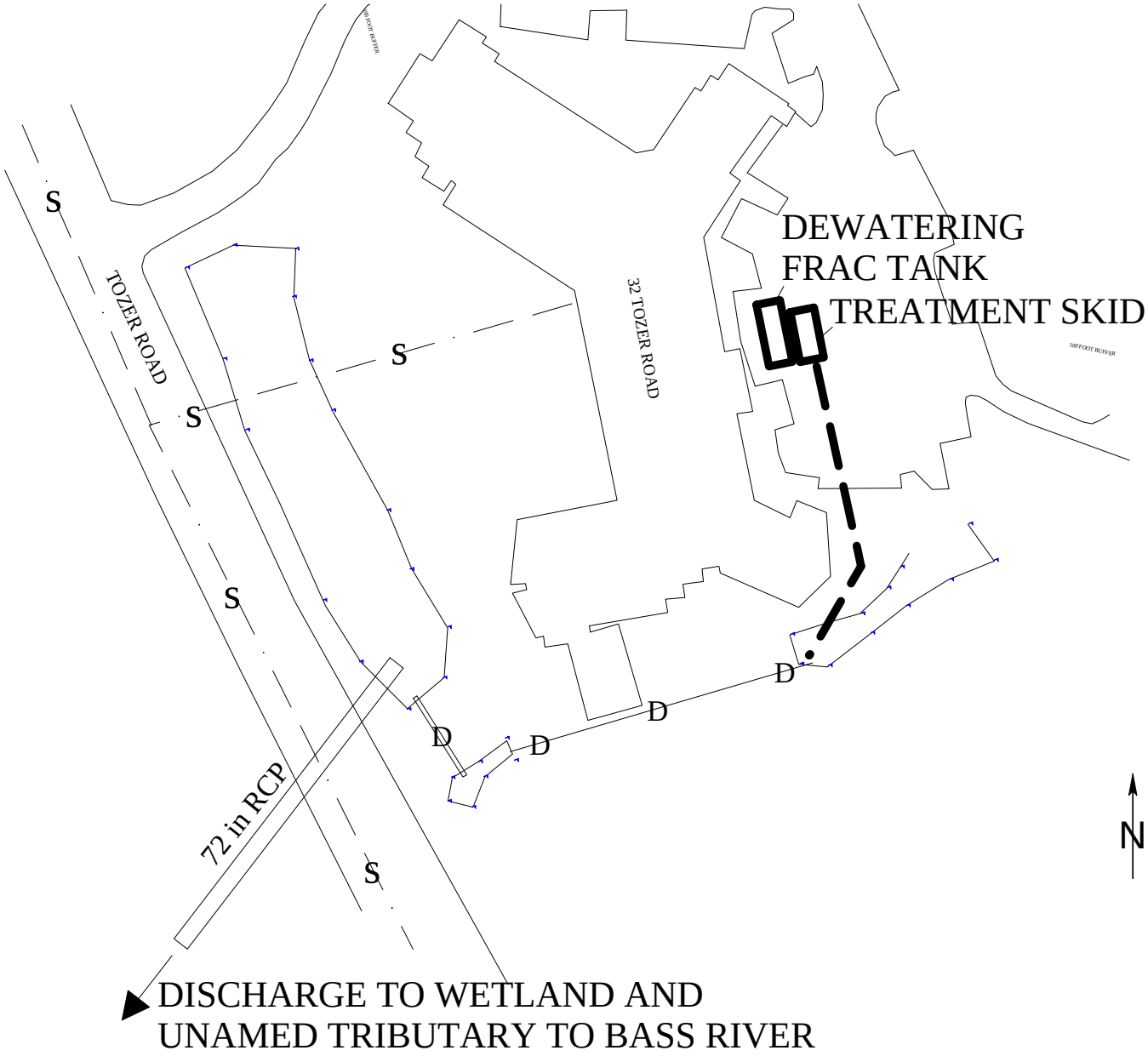
DRAWING BY: ICL
CHECKED BY: JAI
APPROVED BY: JAI

CLIENT: Cell Signaling Technology
3 Trask Lane
Danvers, MA 01923

TITLE: Figure 1:
SITE LOCUS
32 Tozer Road
Beverly, MA 01915

SIZE	CAGE CODE	DWG NO	REV
B		413-06F SITE LOCUS	0

SCALE 1:1 | DATE 21 AUGUST 2012 | SHEET 1 OF 1



LEGEND

- BVW RESOURCE AREA
- S – SANITARY SEWER
- D STORM DRAIN

50 0 25 50 100 200

GRAPHIC SCALE

N

NOTES:
Wetlands delineation from Nitsch Engineering
Plan C1.00 dated November 10, 2011 and
Plan C1.01 dated November 17, 2011.

IRWIN Engineers
CHEMICAL & ENVIRONMENTAL
33 West Central Street
Natick, MA 01760
(508) 653-8007

DRAWING BY:	JAI
CHECKED BY:	KMM
APPROVED BY:	JAI

CLIENT: CELL SIGNALING TECHNOLOGY
3 TRASK LANE
DANVERS, MA

TITLE: 32 TOZER ROAD BEVERLY
SITE PLAN FOR RGP NOI

SIZE	CAGE CODE	DWG NO	REV
A		413-06F D003 P1.TCW	-

SCALE	DATE	SHEET
GRAPHIC	08-21-2012	1 / 1

MassDEP - Bureau of Waste Site Cleanup

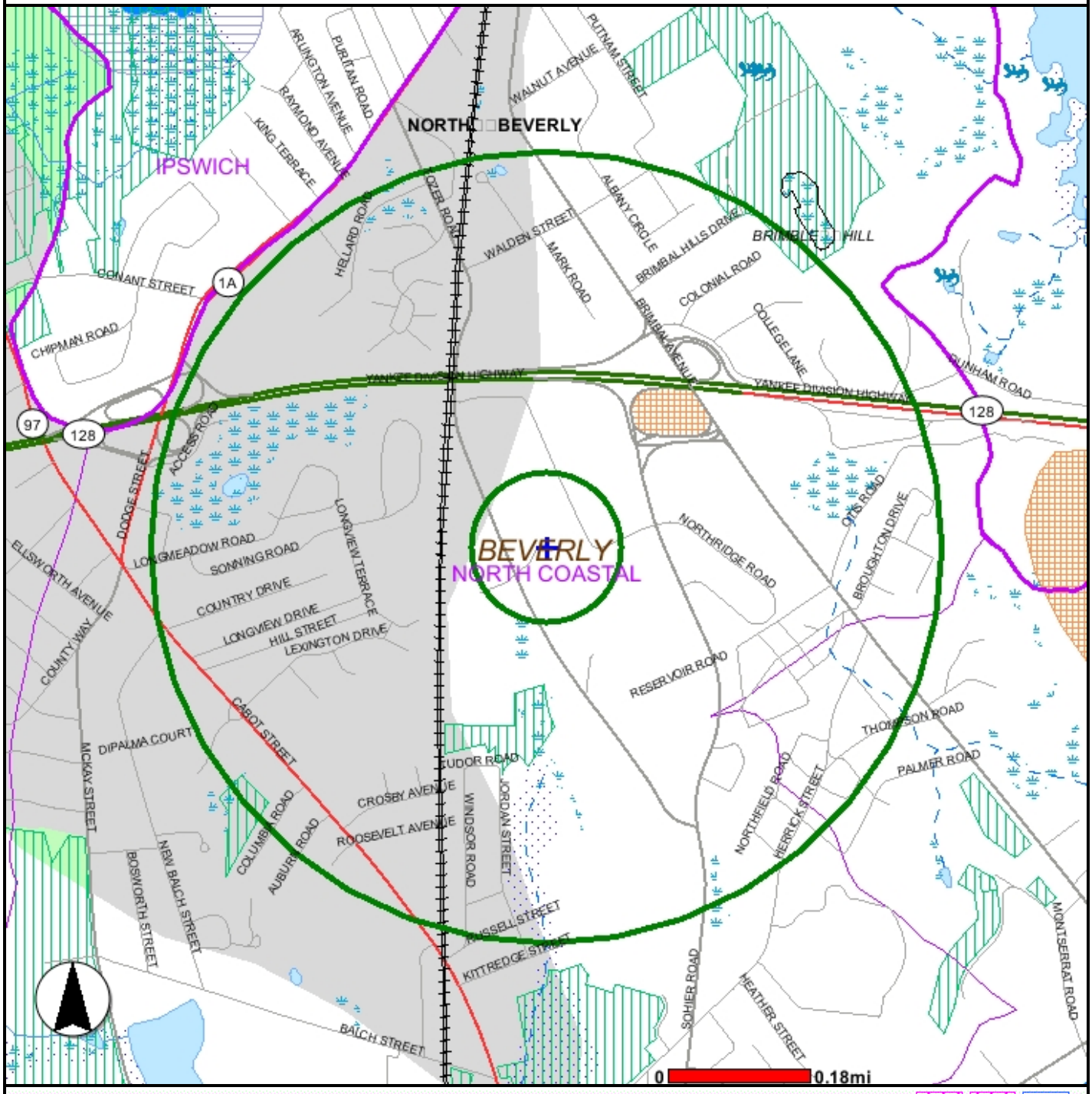
MCP Numerical Ranking System Map: 500 feet & 0.5 Mile Radii

Site Name:
32 TOZER ROAD
Beverly, MA
RTN:
NAD83 MA Coordinates:
250681mE, 924814mN

August 20, 2012

The information shown on this map is the best available at the date of printing. For more information please refer to www.mass.gov/mgis/massgis.htm

MassDEP
Commonwealth of Massachusetts
Department of Environmental Protection



Roads: Limited Access, Divided, Other Hwy, Major Road, Minor Road, Track, Trail
Boundaries: Town, County, DEP Region; Train; Powerline; Pipeline; Aqueduct
Basins: Major, Sub; Streams: Perennial, Intermittent, Man Made Shore, Dam
Aquifers: Medium Yield, High Yield, EPA Sole Source
Non Potential Drinking Water Source Area: Medium, High (Yield)
PWS Protection Areas: Zone II, IWPA, Zone A
Hydrography: Open Water, PWS Reservoir, Tidal Flat
Wetlands: Freshwater, Saltwater, Cranberry Bog
FEMA 100yr Floodplain; Protected Open Space; ACEC
NHESP: Est Rare Weland Habitat, Certified Vernal Pool
DEP Permitted Solid Waste Landfill

Cell Signaling Technologies, Inc.
32 Tozer Road, Beverly MA

Endangered Species Listing
Essex County, MA

Group	Name	Population	Status	Lead Office	Recovery Plan Name	Recovery Plan Stage
Birds	Piping Plover (Charadrius melodus)	Except Great Lakes watershed	Threatened	Office Of The Regional Director	Great Lakes & Northern Great Plains Piping Plover	Final
Birds	Piping Plover (Charadrius melodus)	Except Great Lakes watershed	Threatened	Office Of The Regional Director	Piping Plover Atlantic Coast Population Revised Recovery Plan	Final Revision 1
Birds	Roseate tern (Sterna dougallii dougallii)	Northeast U.S. nesting pop.	Endangered	New England Ecological Services Field Office	Roseate Tern (NE U.S/Canada)	Final Revision 1
Flowering Plants	Small whorled pogonia (Isotria medeoloides)		Threatened	New England Ecological Services Field Office	Small Whorled Pogonia	Final Revision 1
Reptiles	Hawksbill sea turtle (Eretmochelys imbricata)		Endangered	North Florida Ecological Services Field Office	Recovery Plan for U.S. Pacific Populations of the Hawksbill Turtle	Final Revision 1
Reptiles	Hawksbill sea turtle (Eretmochelys imbricata)		Endangered	North Florida Ecological Services Field Office	Recovery Plan for the Hawksbill Turtle in the U.S. Caribbean, Atlantic and Gulf of Mexico	Final Revision 1
Reptiles	Leatherback sea turtle (Dermochelys coriacea)		Endangered	North Florida Ecological Services Field Office	Recovery Plan for U.S. Pacific Populations of the Leatherback Turtle	Final Revision 1
Reptiles	Leatherback sea turtle (Dermochelys coriacea)		Endangered	North Florida Ecological Services Field Office	Recovery Plan for Leatherback Turtles in the U.S. Caribbean, Atlantic, and Gulf of Mexico	Final Revision 1
Reptiles	Green sea turtle (Chelonia mydas)	Except where endangered	Threatened	North Florida Ecological Services Field Office	Recovery Plan for U.S. Pacific Populations of the Green Turtle	Final Revision 1
Reptiles	Green sea turtle (Chelonia mydas)	Except where endangered	Threatened	North Florida Ecological Services Field Office	Recovery Plan for U.S. Population of Atlantic Green Turtle	Final Revision 1

Data from U.S. Fish and Wildlife Service's Environmental Conservation Online System, current as of August 2012.

Report Date:
28-Feb-11 13:55

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Irwin Engineers, Inc.
33 West Central Street
Natick, MA 01760
Attn: Kerri Richard

Project: Tozer Rd - Beverly, MA
Project #: 413-07b-003

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB24958-01	MW-1	Ground Water	24-Feb-11 10:05	24-Feb-11 16:25
SB24958-02	MW-2	Ground Water	24-Feb-11 11:46	24-Feb-11 16:25
SB24958-03	MW-3	Ground Water	24-Feb-11 12:34	24-Feb-11 16:25
SB24958-04	TB	Aqueous	24-Feb-11 08:00	24-Feb-11 16:25

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

Authorized by:

Nicole Leja
Laboratory Director

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 29 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are 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).

CASE NARRATIVE:

The sample temperature upon receipt by Spectrum Analytical courier was recorded as 9.9 degrees Celsius. The condition of these samples was further noted as received on ice. The samples were transported on ice to the laboratory facility and the temperature was recorded at 3.1 degrees Celsius upon receipt at the laboratory. Samples were received within 24 hours of collection. Please refer to the Chain of Custody for details specific to sample receipt times.

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. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

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

SW846 8260C

Calibration:

1101029

Analyte quantified by quadratic equation type calibration.

1,2-Dibromo-3-chloropropane
trans-1,4-Dichloro-2-butene
Vinyl chloride

This affected the following samples:

1103538-BLK1
1103538-BS1
1103538-BSD1
MW-1
S100621-ICV1
S101456-CCV1

1102021

Analyte quantified by quadratic equation type calibration.

Vinyl chloride

SW846 8260C

Calibration:

1102021

This affected the following samples:

1103447-BLK1
1103447-BS1
1103447-BSD1
1103447-MS1
1103447-MSD1
MW-1
MW-2
MW-3
S101141-ICV1
S101425-CCV1
TB

Laboratory Control Samples:

1103447 BS/BSD

Methylene chloride percent recoveries (131/105) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-1
MW-2
MW-3
TB

1103538 BS/BSD

Bromomethane percent recoveries (64/68) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-1

Spikes:

1103447-MS1 *Source: SB24958-01*

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Chloromethane
Hexachlorobutadiene

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Trichloroethene

1103447-MSD1 *Source: SB24958-01*

RPD out of acceptance range.

Trichloroethene

The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.

Chloromethane
Hexachlorobutadiene

The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.

Trichloroethene

SW846 8260C

Samples:

S101425-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Bromoform (20.1%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Acrylonitrile (31.0%)
Methylene chloride (32.9%)
Tert-Butanol / butyl alcohol (21.6%)

This affected the following samples:

1103447-BLK1
1103447-BS1
1103447-BSD1
1103447-MS1
1103447-MSD1
MW-1
MW-2
MW-3
TB

S101456-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (27.3%)
1,1-Dichloroethene (20.7%)
2,2-Dichloropropane (30.6%)
2-Hexanone (MBK) (-21.6%)
Carbon tetrachloride (22.8%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Bromomethane (-39.3%)

This affected the following samples:

1103538-BLK1
1103538-BS1
1103538-BSD1
MW-1

SB24958-01 *MW-1*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).

Trichloroethene

SB24958-01RE1 *MW-1*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SB24958-02 *MW-2*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-07b-003	Ground Water	24-Feb-11 11:46	24-Feb-11
SB24958-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds												
Volatile Organic Compounds Prepared by method SW846 5030 Water MS			GS1									
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL		µg/l	250	250	SW846 8260C	25-Feb-11	25-Feb-11	JLG	1103447	
67-64-1	Acetone	BRL		µg/l	2500	250	"	"	"	"	"	
107-13-1	Acrylonitrile	BRL		µg/l	125	250	"	"	"	"	"	
71-43-2	Benzene	BRL		µg/l	250	250	"	"	"	"	"	
108-86-1	Bromobenzene	BRL		µg/l	250	250	"	"	"	"	"	
74-97-5	Bromochloromethane	BRL		µg/l	250	250	"	"	"	"	"	
75-27-4	Bromodichloromethane	BRL		µg/l	125	250	"	"	"	"	"	
75-25-2	Bromoform	BRL		µg/l	250	250	"	"	"	"	"	
74-83-9	Bromomethane	BRL		µg/l	500	250	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	BRL		µg/l	2500	250	"	"	"	"	"	
104-51-8	n-Butylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
135-98-8	sec-Butylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
98-06-6	tert-Butylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
75-15-0	Carbon disulfide	BRL		µg/l	500	250	"	"	"	"	"	
56-23-5	Carbon tetrachloride	BRL		µg/l	250	250	"	"	"	"	"	
108-90-7	Chlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
75-00-3	Chloroethane	BRL		µg/l	500	250	"	"	"	"	"	
67-66-3	Chloroform	BRL		µg/l	250	250	"	"	"	"	"	
74-87-3	Chloromethane	BRL		µg/l	500	250	"	"	"	"	"	
95-49-8	2-Chlorotoluene	BRL		µg/l	250	250	"	"	"	"	"	
106-43-4	4-Chlorotoluene	BRL		µg/l	250	250	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	BRL		µg/l	500	250	"	"	"	"	"	
124-48-1	Dibromochloromethane	BRL		µg/l	125	250	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	BRL		µg/l	125	250	"	"	"	"	"	
74-95-3	Dibromomethane	BRL		µg/l	250	250	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	BRL		µg/l	500	250	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	BRL		µg/l	250	250	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	BRL		µg/l	250	250	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	BRL		µg/l	250	250	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	3,420		µg/l	250	250	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	BRL		µg/l	250	250	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	BRL		µg/l	250	250	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	BRL		µg/l	250	250	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	BRL		µg/l	250	250	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	BRL		µg/l	250	250	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	BRL		µg/l	125	250	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	BRL		µg/l	125	250	"	"	"	"	"	
100-41-4	Ethylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	BRL		µg/l	125	250	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	BRL		µg/l	2500	250	"	"	"	"	"	
98-82-8	Isopropylbenzene	BRL		µg/l	250	250	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-07b-003	Ground Water	24-Feb-11 11:46	24-Feb-11
SB24958-02				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds												
Volatile Organic Compounds			GS1									
Prepared by method SW846 5030 Water MS												
99-87-6	4-Isopropyltoluene	BRL		µg/l	250	250	SW846 8260C	25-Feb-11	25-Feb-11	JLG	1103447	
1634-04-4	Methyl tert-butyl ether	BRL		µg/l	250	250	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	BRL		µg/l	2500	250	"	"	"	"	"	
75-09-2	Methylene chloride	BRL		µg/l	500	250	"	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/l	250	250	"	"	"	"	"	
103-65-1	n-Propylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
100-42-5	Styrene	BRL		µg/l	250	250	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	BRL		µg/l	250	250	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	BRL		µg/l	125	250	"	"	"	"	"	
127-18-4	Tetrachloroethene	10,600		µg/l	250	250	"	"	"	"	"	
108-88-3	Toluene	BRL		µg/l	250	250	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	BRL		µg/l	250	250	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	BRL		µg/l	250	250	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	BRL		µg/l	250	250	"	"	"	"	"	
79-01-6	Trichloroethene	1,790		µg/l	250	250	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	BRL		µg/l	250	250	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	BRL		µg/l	250	250	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	BRL		µg/l	250	250	"	"	"	"	"	
75-01-4	Vinyl chloride	BRL		µg/l	250	250	"	"	"	"	"	
179601-23-1	m,p-Xylene	BRL		µg/l	500	250	"	"	"	"	"	
95-47-6	o-Xylene	BRL		µg/l	250	250	"	"	"	"	"	
109-99-9	Tetrahydrofuran	BRL		µg/l	500	250	"	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	250	250	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		µg/l	250	250	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	BRL		µg/l	250	250	"	"	"	"	"	
108-20-3	Di-isopropyl ether	BRL		µg/l	250	250	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	BRL		µg/l	2500	250	"	"	"	"	"	
123-91-1	1,4-Dioxane	BRL		µg/l	5000	250	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-butene	BRL		µg/l	1250	250	"	"	"	"	"	
64-17-5	Ethanol	BRL		µg/l	100000	250	"	"	"	"	"	
Surrogate recoveries:												
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*100*			*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*		"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB	413-07b-003	Aqueous	24-Feb-11 08:00	24-Feb-11
SB24958-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*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 8260C	25-Feb-11	25-Feb-11	JLG	1103447	
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	2.0	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	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB	413-07b-003	Aqueous	24-Feb-11 08:00	24-Feb-11
SB24958-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds												
Volatile Organic Compounds Prepared by method SW846 5030 Water MS												
99-87-6	4-Isopropyltoluene	BRL		µg/l	1.0	1	SW846 8260C	25-Feb-11	25-Feb-11	JLG	1103447	
1634-04-4	Methyl tert-butyl ether	BRL		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	2.0	1	"	"	"	"	"	
91-20-3	Naphthalene	BRL		µg/l	1.0	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	BRL		µg/l	1.0	1	"	"	"	"	"	
100-42-5	Styrene	BRL		µg/l	1.0	1	"	"	"	"	"	
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	2.0	1	"	"	"	"	"	
60-29-7	Ethyl ether	BRL		µg/l	1.0	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	BRL		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	BRL		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*	*96*			*70-130 %*		"	"	"	"	"	
2037-26-5	*Toluene-d8*	*101*			*70-130 %*		"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99*			*70-130 %*		"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*100*			*70-130 %*		"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
Blank (1103447-BLK1)						Prepared & Analyzed: 25-Feb-11				
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	2.0						
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						
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	2.0						
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						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
Blank (1103447-BLK1)					Prepared & Analyzed: 25-Feb-11					
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	2.0						
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	*48.9*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.8*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Dibromofluoromethane	*49.3*		µg/l		*50.0*		*99*	*70-130*		
LCS (1103447-BS1)					Prepared & Analyzed: 25-Feb-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	22.0		µg/l		20.0		110	70-130		
Acetone	20.9		µg/l		20.0		104	70-130		
Acrylonitrile	20.3		µg/l		20.0		102	70-130		
Benzene	20.7		µg/l		20.0		103	70-130		
Bromobenzene	21.7		µg/l		20.0		108	70-130		
Bromochloromethane	22.0		µg/l		20.0		110	70-130		
Bromodichloromethane	22.1		µg/l		20.0		110	70-130		
Bromoform	24.9		µg/l		20.0		124	70-130		
Bromomethane	22.0		µg/l		20.0		110	70-130		
2-Butanone (MEK)	22.4		µg/l		20.0		112	70-130		
n-Butylbenzene	21.9		µg/l		20.0		110	70-130		
sec-Butylbenzene	24.1		µg/l		20.0		121	70-130		
tert-Butylbenzene	24.4		µg/l		20.0		122	70-130		
Carbon disulfide	22.5		µg/l		20.0		112	70-130		
Carbon tetrachloride	23.0		µg/l		20.0		115	70-130		
Chlorobenzene	21.0		µg/l		20.0		105	70-130		
Chloroethane	20.2		µg/l		20.0		101	70-130		
Chloroform	20.0		µg/l		20.0		100	70-130		
Chloromethane	18.2		µg/l		20.0		91	70-130		
2-Chlorotoluene	24.4		µg/l		20.0		122	70-130		
4-Chlorotoluene	23.3		µg/l		20.0		116	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
LCS (1103447-BS1)					Prepared & Analyzed: 25-Feb-11					
1,2-Dibromo-3-chloropropane	20.8		µg/l		20.0		104	70-130		
Dibromochloromethane	23.0		µg/l		20.0		115	70-130		
1,2-Dibromoethane (EDB)	21.3		µg/l		20.0		106	70-130		
Dibromomethane	20.8		µg/l		20.0		104	70-130		
1,2-Dichlorobenzene	21.2		µg/l		20.0		106	70-130		
1,3-Dichlorobenzene	22.1		µg/l		20.0		110	70-130		
1,4-Dichlorobenzene	20.5		µg/l		20.0		102	70-130		
Dichlorodifluoromethane (Freon12)	18.5		µg/l		20.0		92	70-130		
1,1-Dichloroethane	22.5		µg/l		20.0		113	70-130		
1,2-Dichloroethane	19.8		µg/l		20.0		99	70-130		
1,1-Dichloroethene	20.2		µg/l		20.0		101	70-130		
cis-1,2-Dichloroethene	20.4		µg/l		20.0		102	70-130		
trans-1,2-Dichloroethene	21.8		µg/l		20.0		109	70-130		
1,2-Dichloropropane	20.7		µg/l		20.0		103	70-130		
1,3-Dichloropropane	20.1		µg/l		20.0		100	70-130		
2,2-Dichloropropane	21.9		µg/l		20.0		109	70-130		
1,1-Dichloropropene	21.2		µg/l		20.0		106	70-130		
cis-1,3-Dichloropropene	21.9		µg/l		20.0		110	70-130		
trans-1,3-Dichloropropene	22.4		µg/l		20.0		112	70-130		
Ethylbenzene	21.9		µg/l		20.0		110	70-130		
Hexachlorobutadiene	22.0		µg/l		20.0		110	70-130		
2-Hexanone (MBK)	20.4		µg/l		20.0		102	70-130		
Isopropylbenzene	22.6		µg/l		20.0		113	70-130		
4-Isopropyltoluene	22.0		µg/l		20.0		110	70-130		
Methyl tert-butyl ether	22.1		µg/l		20.0		110	70-130		
4-Methyl-2-pentanone (MIBK)	20.3		µg/l		20.0		102	70-130		
Methylene chloride	26.2	QM9	µg/l		20.0		131	70-130		
Naphthalene	20.2		µg/l		20.0		101	70-130		
n-Propylbenzene	23.1		µg/l		20.0		116	70-130		
Styrene	22.9		µg/l		20.0		114	70-130		
1,1,1,2-Tetrachloroethane	23.9		µg/l		20.0		119	70-130		
1,1,2,2-Tetrachloroethane	21.2		µg/l		20.0		106	70-130		
Tetrachloroethene	20.7		µg/l		20.0		103	70-130		
Toluene	20.8		µg/l		20.0		104	70-130		
1,2,3-Trichlorobenzene	20.4		µg/l		20.0		102	70-130		
1,2,4-Trichlorobenzene	20.9		µg/l		20.0		104	70-130		
1,3,5-Trichlorobenzene	21.9		µg/l		20.0		110	70-130		
1,1,1-Trichloroethane	21.7		µg/l		20.0		109	70-130		
1,1,2-Trichloroethane	19.6		µg/l		20.0		98	70-130		
Trichloroethene	20.4		µg/l		20.0		102	70-130		
Trichlorofluoromethane (Freon 11)	21.4		µg/l		20.0		107	70-130		
1,2,3-Trichloropropane	20.3		µg/l		20.0		102	70-130		
1,2,4-Trimethylbenzene	23.9		µg/l		20.0		120	70-130		
1,3,5-Trimethylbenzene	23.4		µg/l		20.0		117	70-130		
Vinyl chloride	22.2		µg/l		20.0		111	70-130		
m,p-Xylene	46.2		µg/l		40.0		115	70-130		
o-Xylene	22.7		µg/l		20.0		113	70-130		
Tetrahydrofuran	18.7		µg/l		20.0		94	70-130		
Ethyl ether	19.5		µg/l		20.0		98	70-130		
Tert-amyl methyl ether	22.2		µg/l		20.0		111	70-130		
Ethyl tert-butyl ether	21.7		µg/l		20.0		109	70-130		
Di-isopropyl ether	20.4		µg/l		20.0		102	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
LCS (1103447-BS1)					Prepared & Analyzed: 25-Feb-11					
Tert-Butanol / butyl alcohol	205		µg/l		200		102	70-130		
1,4-Dioxane	221		µg/l		200		111	70-130		
trans-1,4-Dichloro-2-butene	19.9		µg/l		20.0		100	70-130		
Ethanol	414		µg/l		400		104	70-130		
Surrogate: 4-Bromofluorobenzene	*52.7*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*50.2*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.3*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*50.1*		µg/l		*50.0*		*100*	*70-130*		
LCS Dup (1103447-BSD1)					Prepared & Analyzed: 25-Feb-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	17.5		µg/l		20.0		87	70-130	23	25
Acetone	17.6		µg/l		20.0		88	70-130	17	50
Acrylonitrile	21.3		µg/l		20.0		106	70-130	5	25
Benzene	19.8		µg/l		20.0		99	70-130	4	25
Bromobenzene	19.7		µg/l		20.0		98	70-130	10	25
Bromochloromethane	22.1		µg/l		20.0		111	70-130	0.7	25
Bromodichloromethane	20.9		µg/l		20.0		104	70-130	5	25
Bromoform	22.7		µg/l		20.0		113	70-130	9	25
Bromomethane	21.9		µg/l		20.0		109	70-130	0.7	50
2-Butanone (MEK)	22.6		µg/l		20.0		113	70-130	0.6	50
n-Butylbenzene	20.1		µg/l		20.0		101	70-130	9	25
sec-Butylbenzene	21.2		µg/l		20.0		106	70-130	13	25
tert-Butylbenzene	21.7		µg/l		20.0		108	70-130	12	25
Carbon disulfide	17.7		µg/l		20.0		89	70-130	24	25
Carbon tetrachloride	21.7		µg/l		20.0		108	70-130	6	25
Chlorobenzene	19.1		µg/l		20.0		96	70-130	10	25
Chloroethane	18.9		µg/l		20.0		94	70-130	7	50
Chloroform	19.4		µg/l		20.0		97	70-130	3	25
Chloromethane	17.5		µg/l		20.0		87	70-130	4	25
2-Chlorotoluene	22.1		µg/l		20.0		110	70-130	10	25
4-Chlorotoluene	20.8		µg/l		20.0		104	70-130	11	25
1,2-Dibromo-3-chloropropane	19.3		µg/l		20.0		97	70-130	8	25
Dibromochloromethane	22.0		µg/l		20.0		110	70-130	4	50
1,2-Dibromoethane (EDB)	21.3		µg/l		20.0		107	70-130	0.2	25
Dibromomethane	20.2		µg/l		20.0		101	70-130	3	25
1,2-Dichlorobenzene	19.9		µg/l		20.0		99	70-130	6	25
1,3-Dichlorobenzene	20.4		µg/l		20.0		102	70-130	8	25
1,4-Dichlorobenzene	19.1		µg/l		20.0		96	70-130	7	25
Dichlorodifluoromethane (Freon12)	17.1		µg/l		20.0		86	70-130	8	50
1,1-Dichloroethane	21.0		µg/l		20.0		105	70-130	7	25
1,2-Dichloroethane	19.7		µg/l		20.0		99	70-130	0.3	25
1,1-Dichloroethene	19.0		µg/l		20.0		95	70-130	6	25
cis-1,2-Dichloroethene	19.7		µg/l		20.0		99	70-130	3	25
trans-1,2-Dichloroethene	20.2		µg/l		20.0		101	70-130	7	25
1,2-Dichloropropane	19.6		µg/l		20.0		98	70-130	5	25
1,3-Dichloropropane	19.7		µg/l		20.0		98	70-130	2	25
2,2-Dichloropropane	20.3		µg/l		20.0		102	70-130	7	25
1,1-Dichloropropene	19.6		µg/l		20.0		98	70-130	8	25
cis-1,3-Dichloropropene	21.0		µg/l		20.0		105	70-130	4	25
trans-1,3-Dichloropropene	21.5		µg/l		20.0		108	70-130	4	25
Ethylbenzene	19.5		µg/l		20.0		98	70-130	12	25
Hexachlorobutadiene	19.5		µg/l		20.0		97	70-130	12	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
LCS Dup (1103447-BSD1)					Prepared & Analyzed: 25-Feb-11					
2-Hexanone (MBK)	20.6		µg/l		20.0		103	70-130	1	25
Isopropylbenzene	20.2		µg/l		20.0		101	70-130	11	25
4-Isopropyltoluene	19.8		µg/l		20.0		99	70-130	10	25
Methyl tert-butyl ether	21.6		µg/l		20.0		108	70-130	2	25
4-Methyl-2-pentanone (MIBK)	20.7		µg/l		20.0		104	70-130	2	50
Methylene chloride	20.9		µg/l		20.0		105	70-130	22	25
Naphthalene	19.8		µg/l		20.0		99	70-130	2	25
n-Propylbenzene	20.9		µg/l		20.0		105	70-130	10	25
Styrene	20.9		µg/l		20.0		104	70-130	9	25
1,1,1,2-Tetrachloroethane	21.4		µg/l		20.0		107	70-130	11	25
1,1,2,2-Tetrachloroethane	20.2		µg/l		20.0		101	70-130	5	25
Tetrachloroethene	19.9		µg/l		20.0		100	70-130	4	25
Toluene	19.8		µg/l		20.0		99	70-130	5	25
1,2,3-Trichlorobenzene	19.1		µg/l		20.0		95	70-130	7	25
1,2,4-Trichlorobenzene	19.1		µg/l		20.0		96	70-130	9	25
1,3,5-Trichlorobenzene	19.8		µg/l		20.0		99	70-130	10	25
1,1,1-Trichloroethane	20.9		µg/l		20.0		104	70-130	4	25
1,1,2-Trichloroethane	19.7		µg/l		20.0		98	70-130	0.1	25
Trichloroethene	19.0		µg/l		20.0		95	70-130	7	25
Trichlorofluoromethane (Freon 11)	19.3		µg/l		20.0		96	70-130	11	50
1,2,3-Trichloropropane	18.2		µg/l		20.0		91	70-130	11	25
1,2,4-Trimethylbenzene	21.3		µg/l		20.0		106	70-130	12	25
1,3,5-Trimethylbenzene	20.9		µg/l		20.0		105	70-130	11	25
Vinyl chloride	20.8		µg/l		20.0		104	70-130	6	25
m,p-Xylene	41.7		µg/l		40.0		104	70-130	10	25
o-Xylene	20.4		µg/l		20.0		102	70-130	11	25
Tetrahydrofuran	19.0		µg/l		20.0		95	70-130	2	25
Ethyl ether	19.3		µg/l		20.0		97	70-130	0.8	50
Tert-amyl methyl ether	21.4		µg/l		20.0		107	70-130	4	25
Ethyl tert-butyl ether	21.4		µg/l		20.0		107	70-130	1	25
Di-isopropyl ether	20.2		µg/l		20.0		101	70-130	1	25
Tert-Butanol / butyl alcohol	210		µg/l		200		105	70-130	3	25
1,4-Dioxane	225		µg/l		200		112	70-130	2	25
trans-1,4-Dichloro-2-butene	17.5		µg/l		20.0		87	70-130	13	25
Ethanol	440		µg/l		400		110	70-130	6	30
Surrogate: 4-Bromofluorobenzene	*49.7*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*50.0*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Matrix Spike (1103447-MS1)			**Source: SB24958-01**		Prepared & Analyzed: 25-Feb-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.4		µg/l		20.0	BRL	97	70-130		
Acetone	15.8		µg/l		20.0	BRL	79	70-130		
Acrylonitrile	19.1		µg/l		20.0	BRL	96	70-130		
Benzene	17.9		µg/l		20.0	BRL	89	70-130		
Bromobenzene	19.0		µg/l		20.0	BRL	95	70-130		
Bromochloromethane	18.1		µg/l		20.0	BRL	90	70-130		
Bromodichloromethane	19.3		µg/l		20.0	BRL	96	70-130		
Bromoform	18.6		µg/l		20.0	BRL	93	70-130		
Bromomethane	15.5		µg/l		20.0	BRL	78	70-130		
2-Butanone (MEK)	18.6		µg/l		20.0	BRL	93	70-130		
n-Butylbenzene	25.4		µg/l		20.0	BRL	127	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
Matrix Spike (1103447-MS1)			**Source: SB24958-01**		Prepared & Analyzed: 25-Feb-11					
sec-Butylbenzene	24.3		µg/l		20.0	BRL	121	70-130		
tert-Butylbenzene	23.8		µg/l		20.0	BRL	119	70-130		
Carbon disulfide	20.5		µg/l		20.0	BRL	103	70-130		
Carbon tetrachloride	20.7		µg/l		20.0	BRL	104	70-130		
Chlorobenzene	18.7		µg/l		20.0	BRL	93	70-130		
Chloroethane	16.2		µg/l		20.0	BRL	81	70-130		
Chloroform	17.2		µg/l		20.0	BRL	86	70-130		
Chloromethane	13.8	QM7	µg/l		20.0	BRL	69	70-130		
2-Chlorotoluene	23.4		µg/l		20.0	BRL	117	70-130		
4-Chlorotoluene	22.2		µg/l		20.0	BRL	111	70-130		
1,2-Dibromo-3-chloropropane	16.6		µg/l		20.0	BRL	83	70-130		
Dibromochloromethane	18.5		µg/l		20.0	BRL	92	70-130		
1,2-Dibromoethane (EDB)	17.4		µg/l		20.0	BRL	87	70-130		
Dibromomethane	17.0		µg/l		20.0	BRL	85	70-130		
1,2-Dichlorobenzene	20.5		µg/l		20.0	BRL	103	70-130		
1,3-Dichlorobenzene	21.6		µg/l		20.0	BRL	108	70-130		
1,4-Dichlorobenzene	20.1		µg/l		20.0	BRL	100	70-130		
Dichlorodifluoromethane (Freon12)	14.6		µg/l		20.0	BRL	73	70-130		
1,1-Dichloroethane	18.4		µg/l		20.0	BRL	92	70-130		
1,2-Dichloroethane	16.5		µg/l		20.0	BRL	83	70-130		
1,1-Dichloroethene	18.0		µg/l		20.0	0.3	88	70-130		
cis-1,2-Dichloroethene	25.6		µg/l		20.0	9.2	82	70-130		
trans-1,2-Dichloroethene	19.0		µg/l		20.0	BRL	95	70-130		
1,2-Dichloropropane	17.9		µg/l		20.0	BRL	90	70-130		
1,3-Dichloropropane	16.4		µg/l		20.0	BRL	82	70-130		
2,2-Dichloropropane	20.3		µg/l		20.0	BRL	101	70-130		
1,1-Dichloropropene	19.6		µg/l		20.0	BRL	98	70-130		
cis-1,3-Dichloropropene	18.2		µg/l		20.0	BRL	91	70-130		
trans-1,3-Dichloropropene	18.2		µg/l		20.0	BRL	91	70-130		
Ethylbenzene	20.2		µg/l		20.0	BRL	101	70-130		
Hexachlorobutadiene	26.3	QM7	µg/l		20.0	BRL	132	70-130		
2-Hexanone (MBK)	15.8		µg/l		20.0	BRL	79	70-130		
Isopropylbenzene	21.4		µg/l		20.0	BRL	107	70-130		
4-Isopropyltoluene	23.5		µg/l		20.0	BRL	117	70-130		
Methyl tert-butyl ether	17.2		µg/l		20.0	BRL	86	70-130		
4-Methyl-2-pentanone (MIBK)	16.1		µg/l		20.0	BRL	81	70-130		
Methylene chloride	18.1		µg/l		20.0	BRL	91	70-130		
Naphthalene	19.6		µg/l		20.0	BRL	98	70-130		
n-Propylbenzene	23.4		µg/l		20.0	BRL	117	70-130		
Styrene	20.3		µg/l		20.0	BRL	102	70-130		
1,1,1,2-Tetrachloroethane	19.5		µg/l		20.0	BRL	98	70-130		
1,1,2,2-Tetrachloroethane	17.8		µg/l		20.0	BRL	89	70-130		
Tetrachloroethene	23.0		µg/l		20.0	2.5	102	70-130		
Toluene	18.7		µg/l		20.0	BRL	93	70-130		
1,2,3-Trichlorobenzene	21.6		µg/l		20.0	BRL	108	70-130		
1,2,4-Trichlorobenzene	22.6		µg/l		20.0	BRL	113	70-130		
1,3,5-Trichlorobenzene	24.0		µg/l		20.0	BRL	120	70-130		
1,1,1-Trichloroethane	19.3		µg/l		20.0	BRL	97	70-130		
1,1,2-Trichloroethane	16.8		µg/l		20.0	BRL	84	70-130		
Trichloroethene	119	QM4X	µg/l		20.0	112	39	70-130		
Trichlorofluoromethane (Freon 11)	19.9		µg/l		20.0	BRL	99	70-130		
1,2,3-Trichloropropane	16.7		µg/l		20.0	BRL	84	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
Matrix Spike (1103447-MS1)			**Source: SB24958-01**		Prepared & Analyzed: 25-Feb-11					
1,2,4-Trimethylbenzene	22.6		µg/l		20.0	BRL	113	70-130		
1,3,5-Trimethylbenzene	22.6		µg/l		20.0	BRL	113	70-130		
Vinyl chloride	15.8		µg/l		20.0	BRL	79	70-130		
m,p-Xylene	42.4		µg/l		40.0	BRL	106	70-130		
o-Xylene	19.9		µg/l		20.0	BRL	100	70-130		
Tetrahydrofuran	15.3		µg/l		20.0	BRL	76	70-130		
Ethyl ether	15.1		µg/l		20.0	BRL	76	70-130		
Tert-amyl methyl ether	17.9		µg/l		20.0	BRL	90	70-130		
Ethyl tert-butyl ether	17.7		µg/l		20.0	BRL	88	70-130		
Di-isopropyl ether	16.8		µg/l		20.0	BRL	84	70-130		
Tert-Butanol / butyl alcohol	182		µg/l		200	BRL	91	70-130		
1,4-Dioxane	183		µg/l		200	BRL	91	70-130		
trans-1,4-Dichloro-2-butene	14.6		µg/l		20.0	BRL	73	70-130		
Ethanol	328		µg/l		400	BRL	82	70-130		
Surrogate: 4-Bromofluorobenzene	*50.3*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*51.3*		µg/l		*50.0*		*103*	*70-130*		
Matrix Spike Dup (1103447-MSD1)			**Source: SB24958-01**		Prepared & Analyzed: 25-Feb-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	19.3		µg/l		20.0	BRL	96	70-130	0.6	30
Acetone	16.1		µg/l		20.0	BRL	81	70-130	2	30
Acrylonitrile	20.3		µg/l		20.0	BRL	102	70-130	6	30
Benzene	17.6		µg/l		20.0	BRL	88	70-130	2	30
Bromobenzene	20.0		µg/l		20.0	BRL	100	70-130	5	30
Bromochloromethane	18.1		µg/l		20.0	BRL	91	70-130	0.3	30
Bromodichloromethane	19.2		µg/l		20.0	BRL	96	70-130	0.7	30
Bromoform	20.2		µg/l		20.0	BRL	101	70-130	8	30
Bromomethane	16.5		µg/l		20.0	BRL	82	70-130	6	30
2-Butanone (MEK)	18.6		µg/l		20.0	BRL	93	70-130	0.1	30
n-Butylbenzene	25.9		µg/l		20.0	BRL	129	70-130	2	30
sec-Butylbenzene	25.8		µg/l		20.0	BRL	129	70-130	6	30
tert-Butylbenzene	24.6		µg/l		20.0	BRL	123	70-130	3	30
Carbon disulfide	17.8		µg/l		20.0	BRL	89	70-130	15	30
Carbon tetrachloride	20.8		µg/l		20.0	BRL	104	70-130	0.5	30
Chlorobenzene	19.4		µg/l		20.0	BRL	97	70-130	4	30
Chloroethane	15.9		µg/l		20.0	BRL	80	70-130	2	30
Chloroform	16.9		µg/l		20.0	BRL	84	70-130	2	30
Chloromethane	13.9	QM7	µg/l		20.0	BRL	69	70-130	0.5	30
2-Chlorotoluene	24.5		µg/l		20.0	BRL	122	70-130	4	30
4-Chlorotoluene	23.3		µg/l		20.0	BRL	117	70-130	5	30
1,2-Dibromo-3-chloropropane	17.6		µg/l		20.0	BRL	88	70-130	6	30
Dibromochloromethane	18.6		µg/l		20.0	BRL	93	70-130	0.9	30
1,2-Dibromoethane (EDB)	17.6		µg/l		20.0	BRL	88	70-130	1	30
Dibromomethane	16.7		µg/l		20.0	BRL	83	70-130	2	30
1,2-Dichlorobenzene	20.8		µg/l		20.0	BRL	104	70-130	1	30
1,3-Dichlorobenzene	22.2		µg/l		20.0	BRL	111	70-130	3	30
1,4-Dichlorobenzene	20.9		µg/l		20.0	BRL	105	70-130	4	30
Dichlorodifluoromethane (Freon12)	14.7		µg/l		20.0	BRL	74	70-130	1	30
1,1-Dichloroethane	18.4		µg/l		20.0	BRL	92	70-130	0	30
1,2-Dichloroethane	16.4		µg/l		20.0	BRL	82	70-130	0.8	30
1,1-Dichloroethene	19.5		µg/l		20.0	0.3	96	70-130	8	30

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103447 - SW846 5030 Water MS										
Matrix Spike Dup (1103447-MSD1)			**Source: SB24958-01**		Prepared & Analyzed: 25-Feb-11					
cis-1,2-Dichloroethene	24.5		µg/l		20.0	9.2	77	70-130	7	30
trans-1,2-Dichloroethene	18.4		µg/l		20.0	BRL	92	70-130	3	30
1,2-Dichloropropane	17.5		µg/l		20.0	BRL	88	70-130	2	30
1,3-Dichloropropane	16.5		µg/l		20.0	BRL	83	70-130	0.7	30
2,2-Dichloropropane	20.4		µg/l		20.0	BRL	102	70-130	0.4	30
1,1-Dichloropropene	20.1		µg/l		20.0	BRL	101	70-130	3	30
cis-1,3-Dichloropropene	18.2		µg/l		20.0	BRL	91	70-130	0.4	30
trans-1,3-Dichloropropene	18.4		µg/l		20.0	BRL	92	70-130	0.8	30
Ethylbenzene	21.0		µg/l		20.0	BRL	105	70-130	4	30
Hexachlorobutadiene	29.1	QM7	µg/l		20.0	BRL	145	70-130	10	30
2-Hexanone (MBK)	17.2		µg/l		20.0	BRL	86	70-130	8	30
Isopropylbenzene	22.2		µg/l		20.0	BRL	111	70-130	4	30
4-Isopropyltoluene	24.2		µg/l		20.0	BRL	121	70-130	3	30
Methyl tert-butyl ether	17.0		µg/l		20.0	BRL	85	70-130	1	30
4-Methyl-2-pentanone (MIBK)	16.7		µg/l		20.0	BRL	83	70-130	3	30
Methylene chloride	17.9		µg/l		20.0	BRL	90	70-130	1	30
Naphthalene	21.3		µg/l		20.0	BRL	106	70-130	8	30
n-Propylbenzene	24.5		µg/l		20.0	BRL	122	70-130	5	30
Styrene	21.3		µg/l		20.0	BRL	106	70-130	5	30
1,1,1,2-Tetrachloroethane	20.0		µg/l		20.0	BRL	100	70-130	3	30
1,1,2,2-Tetrachloroethane	18.8		µg/l		20.0	BRL	94	70-130	5	30
Tetrachloroethene	22.8		µg/l		20.0	2.5	102	70-130	0.7	30
Toluene	18.8		µg/l		20.0	BRL	94	70-130	0.6	30
1,2,3-Trichlorobenzene	23.3		µg/l		20.0	BRL	116	70-130	8	30
1,2,4-Trichlorobenzene	23.9		µg/l		20.0	BRL	120	70-130	6	30
1,3,5-Trichlorobenzene	24.8		µg/l		20.0	BRL	124	70-130	3	30
1,1,1-Trichloroethane	18.9		µg/l		20.0	BRL	94	70-130	2	30
1,1,2-Trichloroethane	16.5		µg/l		20.0	BRL	83	70-130	2	30
Trichloroethene	110	QM4X, QR5	µg/l		20.0	112	-8	70-130	NR	30
Trichlorofluoromethane (Freon 11)	19.0		µg/l		20.0	BRL	95	70-130	4	30
1,2,3-Trichloropropane	17.5		µg/l		20.0	BRL	87	70-130	5	30
1,2,4-Trimethylbenzene	23.4		µg/l		20.0	BRL	117	70-130	3	30
1,3,5-Trimethylbenzene	23.6		µg/l		20.0	BRL	118	70-130	4	30
Vinyl chloride	16.3		µg/l		20.0	BRL	81	70-130	3	30
m,p-Xylene	44.6		µg/l		40.0	BRL	111	70-130	5	30
o-Xylene	21.5		µg/l		20.0	BRL	108	70-130	8	30
Tetrahydrofuran	15.7		µg/l		20.0	BRL	78	70-130	2	30
Ethyl ether	16.0		µg/l		20.0	BRL	80	70-130	6	30
Tert-amyl methyl ether	17.6		µg/l		20.0	BRL	88	70-130	2	30
Ethyl tert-butyl ether	17.1		µg/l		20.0	BRL	86	70-130	3	30
Di-isopropyl ether	16.7		µg/l		20.0	BRL	84	70-130	0.5	30
Tert-Butanol / butyl alcohol	194		µg/l		200	BRL	97	70-130	7	30
1,4-Dioxane	193		µg/l		200	BRL	97	70-130	6	30
trans-1,4-Dichloro-2-butene	16.1		µg/l		20.0	BRL	81	70-130	10	30
Ethanol	354		µg/l		400	BRL	88	70-130	7	30
Surrogate: 4-Bromofluorobenzene	*51.7*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*50.5*		µg/l		*50.0*		*101*	*70-130*		
Batch 1103538 - SW846 5030 Water MS										
Blank (1103538-BLK1)					Prepared & Analyzed: 28-Feb-11					

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103538 - SW846 5030 Water MS										
Blank (1103538-BLK1)						Prepared & Analyzed: 28-Feb-11				
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	2.0						
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						
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	2.0						
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						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103538 - SW846 5030 Water MS										
Blank (1103538-BLK1)					Prepared & Analyzed: 28-Feb-11					
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	2.0						
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	*42.4*		µg/l		*50.0*		*85*	*70-130*		
Surrogate: Toluene-d8	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*52.6*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Dibromofluoromethane	*53.2*		µg/l		*50.0*		*106*	*70-130*		
LCS (1103538-BS1)					Prepared & Analyzed: 28-Feb-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	24.4		µg/l		20.0		122	70-130		
Acetone	16.0		µg/l		20.0		80	70-130		
Acrylonitrile	21.8		µg/l		20.0		109	70-130		
Benzene	20.8		µg/l		20.0		104	70-130		
Bromobenzene	21.0		µg/l		20.0		105	70-130		
Bromochloromethane	20.4		µg/l		20.0		102	70-130		
Bromodichloromethane	22.5		µg/l		20.0		112	70-130		
Bromoform	19.8		µg/l		20.0		99	70-130		
Bromomethane	12.9		µg/l		20.0		64	70-130		
2-Butanone (MEK)	21.1		µg/l		20.0		106	70-130		
n-Butylbenzene	17.4		µg/l		20.0		87	70-130		
sec-Butylbenzene	21.9		µg/l		20.0		110	70-130		
tert-Butylbenzene	21.1		µg/l		20.0		105	70-130		
Carbon disulfide	23.1		µg/l		20.0		115	70-130		
Carbon tetrachloride	24.0		µg/l		20.0		120	70-130		
Chlorobenzene	20.6		µg/l		20.0		103	70-130		
Chloroethane	23.9		µg/l		20.0		119	70-130		
Chloroform	20.6		µg/l		20.0		103	70-130		
Chloromethane	23.6		µg/l		20.0		118	70-130		
2-Chlorotoluene	21.5		µg/l		20.0		108	70-130		
4-Chlorotoluene	19.4		µg/l		20.0		97	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103538 - SW846 5030 Water MS										
LCS (1103538-BS1)						Prepared & Analyzed: 28-Feb-11				
1,2-Dibromo-3-chloropropane	18.6		µg/l		20.0		93	70-130		
Dibromochloromethane	20.1		µg/l		20.0		100	70-130		
1,2-Dibromoethane (EDB)	18.7		µg/l		20.0		94	70-130		
Dibromomethane	20.9		µg/l		20.0		105	70-130		
1,2-Dichlorobenzene	20.1		µg/l		20.0		100	70-130		
1,3-Dichlorobenzene	21.6		µg/l		20.0		108	70-130		
1,4-Dichlorobenzene	20.0		µg/l		20.0		100	70-130		
Dichlorodifluoromethane (Freon12)	22.2		µg/l		20.0		111	70-130		
1,1-Dichloroethane	20.7		µg/l		20.0		103	70-130		
1,2-Dichloroethane	20.4		µg/l		20.0		102	70-130		
1,1-Dichloroethene	23.4		µg/l		20.0		117	70-130		
cis-1,2-Dichloroethene	22.1		µg/l		20.0		111	70-130		
trans-1,2-Dichloroethene	21.5		µg/l		20.0		108	70-130		
1,2-Dichloropropane	21.2		µg/l		20.0		106	70-130		
1,3-Dichloropropane	20.4		µg/l		20.0		102	70-130		
2,2-Dichloropropane	24.8		µg/l		20.0		124	70-130		
1,1-Dichloropropene	20.5		µg/l		20.0		103	70-130		
cis-1,3-Dichloropropene	21.2		µg/l		20.0		106	70-130		
trans-1,3-Dichloropropene	19.1		µg/l		20.0		95	70-130		
Ethylbenzene	20.8		µg/l		20.0		104	70-130		
Hexachlorobutadiene	21.8		µg/l		20.0		109	70-130		
2-Hexanone (MBK)	15.1		µg/l		20.0		75	70-130		
Isopropylbenzene	20.4		µg/l		20.0		102	70-130		
4-Isopropyltoluene	20.7		µg/l		20.0		103	70-130		
Methyl tert-butyl ether	21.0		µg/l		20.0		105	70-130		
4-Methyl-2-pentanone (MIBK)	16.3		µg/l		20.0		81	70-130		
Methylene chloride	22.0		µg/l		20.0		110	70-130		
Naphthalene	19.0		µg/l		20.0		95	70-130		
n-Propylbenzene	17.8		µg/l		20.0		89	70-130		
Styrene	16.9		µg/l		20.0		84	70-130		
1,1,1,2-Tetrachloroethane	23.3		µg/l		20.0		117	70-130		
1,1,2,2-Tetrachloroethane	22.6		µg/l		20.0		113	70-130		
Tetrachloroethene	20.9		µg/l		20.0		105	70-130		
Toluene	20.1		µg/l		20.0		101	70-130		
1,2,3-Trichlorobenzene	21.5		µg/l		20.0		107	70-130		
1,2,4-Trichlorobenzene	20.1		µg/l		20.0		101	70-130		
1,3,5-Trichlorobenzene	20.8		µg/l		20.0		104	70-130		
1,1,1-Trichloroethane	22.6		µg/l		20.0		113	70-130		
1,1,2-Trichloroethane	21.2		µg/l		20.0		106	70-130		
Trichloroethene	19.3		µg/l		20.0		97	70-130		
Trichlorofluoromethane (Freon 11)	22.3		µg/l		20.0		112	70-130		
1,2,3-Trichloropropane	21.9		µg/l		20.0		109	70-130		
1,2,4-Trimethylbenzene	20.9		µg/l		20.0		104	70-130		
1,3,5-Trimethylbenzene	21.2		µg/l		20.0		106	70-130		
Vinyl chloride	19.6		µg/l		20.0		98	70-130		
m,p-Xylene	42.2		µg/l		40.0		105	70-130		
o-Xylene	21.1		µg/l		20.0		106	70-130		
Tetrahydrofuran	19.2		µg/l		20.0		96	70-130		
Ethyl ether	22.4		µg/l		20.0		112	70-130		
Tert-amyl methyl ether	18.0		µg/l		20.0		90	70-130		
Ethyl tert-butyl ether	21.3		µg/l		20.0		107	70-130		
Di-isopropyl ether	21.3		µg/l		20.0		107	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103538 - SW846 5030 Water MS										
LCS (1103538-BS1)					Prepared & Analyzed: 28-Feb-11					
Tert-Butanol / butyl alcohol	210		µg/l		200		105	70-130		
1,4-Dioxane	193		µg/l		200		97	70-130		
trans-1,4-Dichloro-2-butene	17.1		µg/l		20.0		85	70-130		
Ethanol	399		µg/l		400		100	70-130		
Surrogate: 4-Bromofluorobenzene	*51.4*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: Toluene-d8	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*51.3*		µg/l		*50.0*		*103*	*70-130*		
LCS Dup (1103538-BSD1)					Prepared & Analyzed: 28-Feb-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	22.5		µg/l		20.0		112	70-130	8	25
Acetone	16.6		µg/l		20.0		83	70-130	4	50
Acrylonitrile	21.4		µg/l		20.0		107	70-130	2	25
Benzene	19.4		µg/l		20.0		97	70-130	7	25
Bromobenzene	20.4		µg/l		20.0		102	70-130	3	25
Bromochloromethane	19.8		µg/l		20.0		99	70-130	3	25
Bromodichloromethane	21.5		µg/l		20.0		107	70-130	5	25
Bromoform	20.3		µg/l		20.0		101	70-130	2	25
Bromomethane	13.5		µg/l		20.0		68	70-130	5	50
2-Butanone (MEK)	19.6		µg/l		20.0		98	70-130	7	50
n-Butylbenzene	16.6		µg/l		20.0		83	70-130	5	25
sec-Butylbenzene	19.7		µg/l		20.0		98	70-130	11	25
tert-Butylbenzene	19.6		µg/l		20.0		98	70-130	7	25
Carbon disulfide	21.4		µg/l		20.0		107	70-130	7	25
Carbon tetrachloride	21.9		µg/l		20.0		109	70-130	9	25
Chlorobenzene	19.7		µg/l		20.0		98	70-130	4	25
Chloroethane	22.0		µg/l		20.0		110	70-130	8	50
Chloroform	19.5		µg/l		20.0		98	70-130	5	25
Chloromethane	21.5		µg/l		20.0		108	70-130	9	25
2-Chlorotoluene	18.6		µg/l		20.0		93	70-130	15	25
4-Chlorotoluene	18.3		µg/l		20.0		92	70-130	6	25
1,2-Dibromo-3-chloropropane	19.2		µg/l		20.0		96	70-130	3	25
Dibromochloromethane	19.6		µg/l		20.0		98	70-130	2	50
1,2-Dibromoethane (EDB)	18.5		µg/l		20.0		93	70-130	1	25
Dibromomethane	20.2		µg/l		20.0		101	70-130	3	25
1,2-Dichlorobenzene	19.5		µg/l		20.0		97	70-130	3	25
1,3-Dichlorobenzene	20.2		µg/l		20.0		101	70-130	7	25
1,4-Dichlorobenzene	19.0		µg/l		20.0		95	70-130	5	25
Dichlorodifluoromethane (Freon12)	20.1		µg/l		20.0		100	70-130	10	50
1,1-Dichloroethane	19.6		µg/l		20.0		98	70-130	5	25
1,2-Dichloroethane	19.7		µg/l		20.0		99	70-130	3	25
1,1-Dichloroethene	21.0		µg/l		20.0		105	70-130	11	25
cis-1,2-Dichloroethene	20.9		µg/l		20.0		104	70-130	6	25
trans-1,2-Dichloroethene	20.2		µg/l		20.0		101	70-130	7	25
1,2-Dichloropropane	19.8		µg/l		20.0		99	70-130	7	25
1,3-Dichloropropane	20.1		µg/l		20.0		100	70-130	1	25
2,2-Dichloropropane	21.6		µg/l		20.0		108	70-130	14	25
1,1-Dichloropropene	18.9		µg/l		20.0		94	70-130	8	25
cis-1,3-Dichloropropene	20.7		µg/l		20.0		103	70-130	2	25
trans-1,3-Dichloropropene	18.5		µg/l		20.0		93	70-130	3	25
Ethylbenzene	19.4		µg/l		20.0		97	70-130	7	25
Hexachlorobutadiene	20.3		µg/l		20.0		102	70-130	7	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1103538 - SW846 5030 Water MS										
LCS Dup (1103538-BSD1)					Prepared & Analyzed: 28-Feb-11					
2-Hexanone (MBK)	14.3		µg/l		20.0		72	70-130	5	25
Isopropylbenzene	19.6		µg/l		20.0		98	70-130	4	25
4-Isopropyltoluene	19.5		µg/l		20.0		97	70-130	6	25
Methyl tert-butyl ether	20.6		µg/l		20.0		103	70-130	2	25
4-Methyl-2-pentanone (MIBK)	16.7		µg/l		20.0		83	70-130	2	50
Methylene chloride	21.5		µg/l		20.0		107	70-130	3	25
Naphthalene	18.4		µg/l		20.0		92	70-130	3	25
n-Propylbenzene	17.1		µg/l		20.0		86	70-130	4	25
Styrene	16.2		µg/l		20.0		81	70-130	4	25
1,1,1,2-Tetrachloroethane	22.5		µg/l		20.0		112	70-130	4	25
1,1,2,2-Tetrachloroethane	22.2		µg/l		20.0		111	70-130	2	25
Tetrachloroethene	19.1		µg/l		20.0		95	70-130	9	25
Toluene	19.2		µg/l		20.0		96	70-130	5	25
1,2,3-Trichlorobenzene	20.6		µg/l		20.0		103	70-130	4	25
1,2,4-Trichlorobenzene	19.7		µg/l		20.0		98	70-130	2	25
1,3,5-Trichlorobenzene	19.9		µg/l		20.0		100	70-130	4	25
1,1,1-Trichloroethane	20.9		µg/l		20.0		105	70-130	8	25
1,1,2-Trichloroethane	20.4		µg/l		20.0		102	70-130	4	25
Trichloroethene	17.9		µg/l		20.0		89	70-130	8	25
Trichlorofluoromethane (Freon 11)	20.6		µg/l		20.0		103	70-130	8	50
1,2,3-Trichloropropane	21.1		µg/l		20.0		106	70-130	4	25
1,2,4-Trimethylbenzene	19.6		µg/l		20.0		98	70-130	6	25
1,3,5-Trimethylbenzene	19.8		µg/l		20.0		99	70-130	7	25
Vinyl chloride	18.0		µg/l		20.0		90	70-130	8	25
m,p-Xylene	39.6		µg/l		40.0		99	70-130	6	25
o-Xylene	19.7		µg/l		20.0		99	70-130	7	25
Tetrahydrofuran	18.4		µg/l		20.0		92	70-130	4	25
Ethyl ether	22.3		µg/l		20.0		111	70-130	0.5	50
Tert-amyl methyl ether	17.6		µg/l		20.0		88	70-130	2	25
Ethyl tert-butyl ether	20.8		µg/l		20.0		104	70-130	2	25
Di-isopropyl ether	21.0		µg/l		20.0		105	70-130	2	25
Tert-Butanol / butyl alcohol	195		µg/l		200		97	70-130	8	25
1,4-Dioxane	181		µg/l		200		91	70-130	6	25
trans-1,4-Dichloro-2-butene	15.5		µg/l		20.0		77	70-130	10	25
Ethanol	393		µg/l		400		98	70-130	1	30
Surrogate: 4-Bromofluorobenzene	*50.6*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Dibromofluoromethane	*50.5*		µg/l		*50.0*		*101*	*70-130*		

Notes and Definitions

E	The concentration indicated for this analyte is an estimated value. This value is considered an estimate (CLP E-flag).
GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QM4X	The spike recovery was outside of QC acceptance limits for the MS, MSD and/or PS due to analyte concentration at 4 times or greater the spike concentration. The QC batch was accepted based on LCS and/or LCSD recoveries within the acceptance limits.
QM7	The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR5	RPD out of acceptance range.
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

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

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.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
June O'Connor

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 413-07b-003
Project Location: Tozer Rd - Beverly, MA	**RTN:**
This form provides certifications for the following data set:	SB24958-01 through SB24958-04
Matrices: Aqueous Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B	

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	✓ 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.

Nicole Leja
Laboratory Director
Date: 2/28/2011

✓ SB 24958

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling: 2/28/11
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: 3/2/2011
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: Irwin Engineers
33 W. Central St
Natick, MA
Telephone #: 508 653-8007
Project Mgr. KAR, JAI

Invoice To: SAME
P.O. No.: _____ RQN: _____

Project No.: 413-076-003
Site Name: TOZER Rd.
Location: Beverly State: MA
Sampler(s): KAR

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid 7=CH_3OH
8= $NaHSO_4$ 9= Deionized Water 10= _____ 11= _____

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	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List preservative code below: 2	Analyses:
24958-01	MW-1	2/24/11	10:05	G	GW	3					X VOC(8260)
-02	MW-2	2/24/11	11:46	G	GW	3					X
-03	MW-3	2/24/11	12:34	G	GW	3					X
-04	TB	2/24/11	8:00			1					X

QA/QC Reporting Notes:
* additional charges may apply

MA DEP MCP CAM Report: Yes ☒ No ☐
CT DPH RCP Report: Yes ☐ No ☐

QA/QC Reporting Level
☒ Standard ☐ No QC ☐ DQA*
☐ NY ASP A* ☐ NY ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ TIER II* ☐ TIER V*
☐ Other _____

State-specific reporting standards:
MCP-
GW-1, GW-2, GW-3

Relinquished by:	Received by:	Date:	Time:	Temp°C
[signature]	[signature]	2.24.11	1420	9.9
[signature]	[signature]	2/24/11	16:05	3.1

☐ EDD Format _____
☐ E-mail to _____

☐ Ambient ☑ Iced ☐ Refrigerated ☐ Fridge temp ___ °C ☐ Freezer temp ___ °C

Report Date:
07-Dec-11 12:57

☐ Final Report
☐ Re-Issued Report
☑ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Irwin Engineers, Inc.
33 West Central Street
Natick, MA 01760
Attn: Martha Zirbel

Project: Cell Signaling-Beverly, MA
Project #: 413-06C/002

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB38837-01	MW-4	Ground Water	08-Nov-11 10:30	08-Nov-11 17:18
SB38837-02	MW-5	Ground Water	08-Nov-11 11:15	08-Nov-11 17:18
SB38837-03	MW-2	Ground Water	08-Nov-11 09:25	08-Nov-11 17:18
SB38837-04	TB-1	Aqueous	08-Nov-11 00:00	08-Nov-11 17:18

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

Authorized by:

Nicole Leja
Laboratory Director

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 54 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are 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).

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 413-06C/002
Project Location: Cell Signaling-Beverly, MA	**RTN:**
This form provides certifications for the following data set:	SB38837-01 through SB38837-04
Matrices: Aqueous Ground Water	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	✓ 7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
✓ 8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	✓ 8082 PCB CAM V A	✓ 9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	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.

Nicole Leja
Laboratory Director
Date: 12/7/2011

CASE NARRATIVE:

The samples were received 0.7 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. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

General Case Narrative:

The RGP limits on the permit attached were reviewed. Some limits are not achievable, even using current best available technology. EPA 608 PCBs were extracted using 1 liter and concentrated to a final volume of 1 ml, however this still could not achieve permit limits.

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

EPA 300.0

Samples:

SB38837-03 *MW-2*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

Chloride

EPA 608

Samples:

SB38837-03 *MW-2*

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)

SW846 6010C

Duplicates:

1123161-DUP1 *Source: SB38837-03*

The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.

Zinc

1123495-DUP1 *Source: SB38837-03*

The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.

Zinc

SW846 8260C

Calibration:

1110025

Analyte quantified by quadratic equation type calibration.

Naphthalene

This affected the following samples:

1123358-BLK1
1123358-BS1
1123358-BSD1
1123368-BLK1
1123368-BS1
1123368-BSD1
MW-2
S109403-ICV1
S110398-CCV1
S110423-CCV1
TB-1

1110043

Analyte quantified by quadratic equation type calibration.

1,1,2,2-Tetrachloroethane
1,2-Dibromo-3-chloropropane
1,4-Dioxane
Bromodichloromethane
Bromoform
cis-1,3-Dichloropropene
Dibromochloromethane
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene

This affected the following samples:

1123266-BLK1
1123266-BS1
1123266-BSD1
MW-4
MW-5
S109948-ICV1
S110355-CCV1

S109403-ICV1

Analyte percent recovery is outside individual acceptance criteria (70-130).

1,2-Dibromo-3-chloropropane (56%)

This affected the following samples:

1123358-BLK1
1123358-BS1
1123358-BSD1
1123368-BLK1
1123368-BS1
1123368-BSD1
MW-2
S110398-CCV1
S110423-CCV1
TB-1

Laboratory Control Samples:

SW846 8260C

Laboratory Control Samples:

1123266 BS/BSD

Tert-Butanol / butyl alcohol percent recoveries (71/69) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-4
MW-5

1123358 BS/BSD

1,4-Dioxane percent recoveries (110/66) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

TB-1

Ethanol percent recoveries (105/69) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

TB-1

Naphthalene percent recoveries (154/106) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

TB-1

1123358 BSD

1,4-Dioxane RPD 50% (25%) is outside individual acceptance criteria, but within overall method allowances.

Ethanol RPD 41% (30%) is outside individual acceptance criteria, but within overall method allowances.

Naphthalene RPD 36% (25%) is outside individual acceptance criteria, but within overall method allowances.

Tert-Butanol / butyl alcohol RPD 32% (25%) is outside individual acceptance criteria, but within overall method allowances.

1123358-BSD1

The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

1,4-Dioxane
Tert-Butanol / butyl alcohol

1123368 BS/BSD

Acetone percent recoveries (147/138) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-2

Samples:

S110355-CCV1

SW846 8260C

Samples:

S110355-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1-Dichloroethene (-21.5%)
2-Butanone (MEK) (-24.9%)
Acetone (-24.1%)
Bromomethane (-31.3%)
Carbon disulfide (-22.6%)
Chloroethane (-22.4%)
Chloromethane (-25.1%)
Ethanol (-27.9%)
Methyl tert-butyl ether (-22.0%)
Tert-Butanol / butyl alcohol (-29.2%)
trans-1,2-Dichloroethene (-22.6%)
Vinyl chloride (-26.9%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2,2-Tetrachloroethane (21.7%)

This affected the following samples:

1123266-BLK1
1123266-BS1
1123266-BSD1
MW-4
MW-5

S110398-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (21.5%)
Ethanol (-30.9%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

1,4-Dioxane (-33.9%)

This affected the following samples:

1123358-BLK1
1123358-BS1
1123358-BSD1
TB-1

S110423-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1-Dichloroethane (-26.4%)
2,2-Dichloropropane (-20.3%)
Acetone (38.5%)
trans-1,2-Dichloroethene (-23.3%)

This affected the following samples:

1123368-BLK1
1123368-BS1
1123368-BSD1
MW-2

SB38837-03 *MW-2*

SW846 8260C

Samples:

SB38837-03 *MW-2*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SW846 8270D

Calibration:

1110020

Analyte quantified by quadratic equation type calibration.

3-Nitroaniline
4,6-Dinitro-2-methylphenol
Benzidine
Carbazole

This affected the following samples:

1123226-BLK1
1123226-BS1
1123226-BSD1
MW-2
S109206-ICV1
S110404-CCV1

S109206-ICV1

Analyte percent recovery is outside individual acceptance criteria (70-130).

3-Nitroaniline (140%)
Aniline (132%)
Benzidine (168%)
Bis(2-chloroethoxy)methane (67%)
Carbazole (205%)
Hexachlorobutadiene (69%)

This affected the following samples:

1123226-BLK1
1123226-BS1
1123226-BSD1
MW-2
S110404-CCV1

Laboratory Control Samples:

1123226 BS/BSD

4-Nitrophenol percent recoveries (25/27) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

Benzoic acid percent recoveries (23/27) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

Benzyl alcohol percent recoveries (38/42) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

SW846 8270D

Laboratory Control Samples:

1123226 BS/BSD

Carbazole percent recoveries (144/154) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially high bias:

MW-2

Hexachlorocyclopentadiene percent recoveries (35/47) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

N-Nitrosodimethylamine percent recoveries (20/17) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

Pentachlorophenol percent recoveries (39/47) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

Phenol percent recoveries (30/32) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

Pyridine percent recoveries (13/11) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

MW-2

1123226 BSD

Hexachlorocyclopentadiene RPD 28% (20%) is outside individual acceptance criteria, but within overall method allowances.

Samples:

S110404-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

3,3´-Dichlorobenzidine (32.7%)
4-Chlorophenyl phenyl ether (20.5%)
Di-n-butyl phthalate (22.9%)
Di-n-octyl phthalate (22.3%)
Fluorene (21.6%)
Hexachlorobutadiene (20.6%)
N-Nitrosodimethylamine (-55.0%)
N-Nitrosodiphenylamine (21.3%)
Pentachloronitrobenzene (49.0%)
Pyridine (-61.3%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

3-Nitroaniline (36.2%)
Carbazole (39.9%)

This affected the following samples:

1123226-BLK1
1123226-BS1
1123226-BSD1
MW-2

SW846 8270D SIM

Samples:

S110404-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

Fluorene (21.6%)

This affected the following samples:

1123226-BS1
1123226-BSD1

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11
SB38837-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 200		µg/l	200	129	200	SW846 8260C	10-Nov-11	11-Nov-11	eq	1123368	
67-64-1	Acetone	< 2000		µg/l	2000	511	200	"	"	"	"	"	
107-13-1	Acrylonitrile	< 100		µg/l	100	92.2	200	"	"	"	"	"	
71-43-2	Benzene	< 200		µg/l	200	134	200	"	"	"	"	"	
108-86-1	Bromobenzene	< 200		µg/l	200	144	200	"	"	"	"	"	
74-97-5	Bromochloromethane	< 200		µg/l	200	142	200	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 100		µg/l	100	95.8	200	"	"	"	"	"	
75-25-2	Bromoform	< 200		µg/l	200	121	200	"	"	"	"	"	
74-83-9	Bromomethane	< 400		µg/l	400	228	200	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 2000		µg/l	2000	347	200	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 200		µg/l	200	112	200	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 200		µg/l	200	164	200	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 200		µg/l	200	149	200	"	"	"	"	"	
75-15-0	Carbon disulfide	< 400		µg/l	400	125	200	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 200		µg/l	200	110	200	"	"	"	"	"	
108-90-7	Chlorobenzene	< 200		µg/l	200	131	200	"	"	"	"	"	
75-00-3	Chloroethane	< 400		µg/l	400	207	200	"	"	"	"	"	
67-66-3	Chloroform	< 200		µg/l	200	138	200	"	"	"	"	"	
74-87-3	Chloromethane	< 400		µg/l	400	295	200	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 200		µg/l	200	158	200	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 200		µg/l	200	146	200	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 400		µg/l	400	185	200	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 100		µg/l	100	57.8	200	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 100		µg/l	100	65.4	200	"	"	"	"	"	
74-95-3	Dibromomethane	< 200		µg/l	200	133	200	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 200		µg/l	200	134	200	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 200		µg/l	200	142	200	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 200		µg/l	200	125	200	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 400		µg/l	400	89.4	200	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 200		µg/l	200	136	200	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 200		µg/l	200	156	200	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 200		µg/l	200	97.6	200	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	3,730		µg/l	200	143	200	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 200		µg/l	200	136	200	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 200		µg/l	200	142	200	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 200		µg/l	200	161	200	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 200		µg/l	200	121	200	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 200		µg/l	200	127	200	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 100		µg/l	100	50.4	200	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 100		µg/l	100	99.8	200	"	"	"	"	"	
100-41-4	Ethylbenzene	< 200		µg/l	200	146	200	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 100		µg/l	100	90.0	200	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 2000		µg/l	2000	109	200	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11
SB38837-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 200		µg/l	200	124	200	SW846 8260C	10-Nov-11	11-Nov-11	eq	1123368	
99-87-6	4-Isopropyltoluene	< 200		µg/l	200	122	200	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 200		µg/l	200	130	200	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 2000		µg/l	2000	186	200	"	"	"	"	"	
75-09-2	Methylene chloride	< 400		µg/l	400	138	200	"	"	"	"	"	
91-20-3	Naphthalene	< 200		µg/l	200	66.2	200	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 200		µg/l	200	152	200	"	"	"	"	"	
100-42-5	Styrene	< 200		µg/l	200	123	200	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 200		µg/l	200	125	200	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 100		µg/l	100	69.8	200	"	"	"	"	"	
127-18-4	Tetrachloroethene	10,100		µg/l	200	149	200	"	"	"	"	"	
108-88-3	Toluene	< 200		µg/l	200	162	200	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 200		µg/l	200	75.2	200	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 200		µg/l	200	72.0	200	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 200		µg/l	200	157	200	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 200		µg/l	200	116	200	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 200		µg/l	200	128	200	"	"	"	"	"	
79-01-6	Trichloroethene	1,500		µg/l	200	151	200	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 200		µg/l	200	126	200	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 200		µg/l	200	147	200	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 200		µg/l	200	151	200	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 200		µg/l	200	149	200	"	"	"	"	"	
75-01-4	Vinyl chloride	< 200		µg/l	200	161	200	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 400		µg/l	400	328	200	"	"	"	"	"	
95-47-6	o-Xylene	< 200		µg/l	200	176	200	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 400		µg/l	400	288	200	"	"	"	"	"	
60-29-7	Ethyl ether	< 200		µg/l	200	139	200	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 200		µg/l	200	144	200	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 200		µg/l	200	156	200	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 200		µg/l	200	145	200	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 2000		µg/l	2000	1730	200	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 4000		µg/l	4000	2800	200	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 1000		µg/l	1000	153	200	"	"	"	"	"	
64-17-5	Ethanol	< 80000		µg/l	80000	7140	200	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*98*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*99*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*95*			*70-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11
SB38837-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													
83-32-9	Acenaphthene	< 5.49		µg/l	5.49	0.890	1	SW846 8270D	09-Nov-11	09-Nov-11	ML	1123226	
208-96-8	Acenaphthylene	< 5.49		µg/l	5.49	1.11	1	"	"	"	"	"	
62-53-3	Aniline	< 5.49		µg/l	5.49	2.34	1	"	"	"	"	"	
120-12-7	Anthracene	< 5.49		µg/l	5.49	0.813	1	"	"	"	"	"	
103-33-3	Azobenzene/Diphenyldiazine	< 5.49		µg/l	5.49	1.18	1	"	"	"	"	"	
92-87-5	Benzidine	< 5.49		µg/l	5.49	3.26	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 5.49		µg/l	5.49	0.615	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 5.49		µg/l	5.49	0.923	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 5.49		µg/l	5.49	1.05	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 5.49		µg/l	5.49	1.59	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 5.49		µg/l	5.49	1.67	1	"	"	"	"	"	
65-85-0	Benzoic acid	< 5.49		µg/l	5.49	1.73	1	"	"	"	"	"	
100-51-6	Benzyl alcohol	< 5.49		µg/l	5.49	1.68	1	"	"	"	"	"	
111-91-1	Bis(2-chloroethoxy)methane	< 5.49		µg/l	5.49	1.16	1	"	"	"	"	"	
111-44-4	Bis(2-chloroethyl)ether	< 5.49		µg/l	5.49	1.23	1	"	"	"	"	"	
108-60-1	Bis(2-chloroisopropyl)ether	< 5.49		µg/l	5.49	1.35	1	"	"	"	"	"	
117-81-7	Bis(2-ethylhexyl)phthalate	< 5.49		µg/l	5.49	1.85	1	"	"	"	"	"	
101-55-3	4-Bromophenyl phenyl ether	< 5.49		µg/l	5.49	1.44	1	"	"	"	"	"	
85-68-7	Butyl benzyl phthalate	< 5.49		µg/l	5.49	0.824	1	"	"	"	"	"	
86-74-8	Carbazole	< 5.49		µg/l	5.49	2.22	1	"	"	"	"	"	
59-50-7	4-Chloro-3-methylphenol	< 5.49		µg/l	5.49	1.59	1	"	"	"	"	"	
106-47-8	4-Chloroaniline	< 5.49		µg/l	5.49	1.30	1	"	"	"	"	"	
91-58-7	2-Chloronaphthalene	< 5.49		µg/l	5.49	0.725	1	"	"	"	"	"	
95-57-8	2-Chlorophenol	< 5.49		µg/l	5.49	0.923	1	"	"	"	"	"	
7005-72-3	4-Chlorophenyl phenyl ether	< 5.49		µg/l	5.49	1.08	1	"	"	"	"	"	
218-01-9	Chrysene	< 5.49		µg/l	5.49	0.725	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 5.49		µg/l	5.49	1.44	1	"	"	"	"	"	
132-64-9	Dibenzofuran	< 5.49		µg/l	5.49	0.725	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	39.9		µg/l	5.49	0.934	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.49		µg/l	5.49	1.48	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.49		µg/l	5.49	0.791	1	"	"	"	"	"	
91-94-1	3,3´-Dichlorobenzidine	< 5.49		µg/l	5.49	2.22	1	"	"	"	"	"	
120-83-2	2,4-Dichlorophenol	< 5.49		µg/l	5.49	1.46	1	"	"	"	"	"	
84-66-2	Diethyl phthalate	< 5.49		µg/l	5.49	1.35	1	"	"	"	"	"	
131-11-3	Dimethyl phthalate	< 5.49		µg/l	5.49	0.934	1	"	"	"	"	"	
105-67-9	2,4-Dimethylphenol	< 5.49		µg/l	5.49	1.15	1	"	"	"	"	"	
84-74-2	Di-n-butyl phthalate	< 5.49		µg/l	5.49	1.47	1	"	"	"	"	"	
534-52-1	4,6-Dinitro-2-methylphenol	< 5.49		µg/l	5.49	2.11	1	"	"	"	"	"	
51-28-5	2,4-Dinitrophenol	< 5.49		µg/l	5.49	3.53	1	"	"	"	"	"	
121-14-2	2,4-Dinitrotoluene	< 5.49		µg/l	5.49	1.41	1	"	"	"	"	"	
606-20-2	2,6-Dinitrotoluene	< 5.49		µg/l	5.49	1.20	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11
SB38837-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													
117-84-0	Di-n-octyl phthalate	< 5.49		µg/l	5.49	1.45	1	SW846 8270D	09-Nov-11	09-Nov-11	ML	1123226	
206-44-0	Fluoranthene	< 5.49		µg/l	5.49	2.35	1	"	"	"	"	"	
86-73-7	Fluorene	< 5.49		µg/l	5.49	1.00	1	"	"	"	"	"	
118-74-1	Hexachlorobenzene	< 5.49		µg/l	5.49	1.33	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 5.49		µg/l	5.49	1.45	1	"	"	"	"	"	
77-47-4	Hexachlorocyclopentadiene	< 5.49		µg/l	5.49	1.48	1	"	"	"	"	"	
67-72-1	Hexachloroethane	< 5.49		µg/l	5.49	1.23	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 5.49		µg/l	5.49	1.47	1	"	"	"	"	"	
78-59-1	Isophorone	< 5.49		µg/l	5.49	1.18	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 5.49		µg/l	5.49	1.41	1	"	"	"	"	"	
95-48-7	2-Methylphenol	< 5.49		µg/l	5.49	0.934	1	"	"	"	"	"	
108-39-4, 106-44-5	3 & 4-Methylphenol	< 11.0		µg/l	11.0	1.20	1	"	"	"	"	"	
91-20-3	Naphthalene	< 5.49		µg/l	5.49	0.824	1	"	"	"	"	"	
88-74-4	2-Nitroaniline	< 5.49		µg/l	5.49	1.16	1	"	"	"	"	"	
99-09-2	3-Nitroaniline	< 5.49		µg/l	5.49	1.75	1	"	"	"	"	"	
100-01-6	4-Nitroaniline	< 22.0		µg/l	22.0	5.02	1	"	"	"	"	"	
98-95-3	Nitrobenzene	< 5.49		µg/l	5.49	1.05	1	"	"	"	"	"	
88-75-5	2-Nitrophenol	< 5.49		µg/l	5.49	1.44	1	"	"	"	"	"	
100-02-7	4-Nitrophenol	< 22.0		µg/l	22.0	2.82	1	"	"	"	"	"	
62-75-9	N-Nitrosodimethylamine	< 5.49		µg/l	5.49	2.30	1	"	"	"	"	"	
621-64-7	N-Nitrosodi-n-propylamine	< 5.49		µg/l	5.49	1.22	1	"	"	"	"	"	
86-30-6	N-Nitrosodiphenylamine	< 5.49		µg/l	5.49	1.25	1	"	"	"	"	"	
87-86-5	Pentachlorophenol	< 22.0		µg/l	22.0	1.96	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 5.49		µg/l	5.49	0.659	1	"	"	"	"	"	
108-95-2	Phenol	< 5.49		µg/l	5.49	1.15	1	"	"	"	"	"	
129-00-0	Pyrene	< 5.49		µg/l	5.49	2.71	1	"	"	"	"	"	
110-86-1	Pyridine	< 5.49		µg/l	5.49	2.01	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.49		µg/l	5.49	1.09	1	"	"	"	"	"	
90-12-0	1-Methylnaphthalene	< 5.49		µg/l	5.49	1.21	1	"	"	"	"	"	
95-95-4	2,4,5-Trichlorophenol	< 5.49		µg/l	5.49	1.62	1	"	"	"	"	"	
88-06-2	2,4,6-Trichlorophenol	< 5.49		µg/l	5.49	1.07	1	"	"	"	"	"	
82-68-8	Pentachloronitrobenzene	< 5.49		µg/l	5.49	1.77	1	"	"	"	"	"	
95-94-3	1,2,4,5-Tetrachlorobenzene	< 5.49		µg/l	5.49	0.758	1	"	"	"	"	"	
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*53*			*30-130 %*			"	"	"	"	"	
367-12-4	*2-Fluorophenol*	*27*			*15-110 %*			"	"	"	"	"	
4165-60-0	*Nitrobenzene-d5*	*50*			*30-130 %*			"	"	"	"	"	
4165-62-2	*Phenol-d5*	*22*			*15-110 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*63*			*30-130 %*			"	"	"	"	"	
118-79-6	*2,4,6-Tribromophenol*	*54*			*15-110 %*			"	"	"	"	"	
SVOCs by SIM													
Prepared by method SW846 3510C													
83-32-9	Acenaphthene	< 0.050		µg/l	0.050	0.007	1	SW846 8270D SIM	"	05-Dec-11	SM	"	

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

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11
SB38837-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GCMS													
SVOCs by SIM													
Prepared by method SW846 3510C													
208-96-8	Acenaphthylene	< 0.050		µg/l	0.050	0.013	1	SW846 8270D SIM	09-Nov-11	05-Dec-11	SM	1123226	
90-12-0	1-Methylnaphthalene	< 0.050		µg/l	0.050	0.010	1	"	"	"	"	"	
120-12-7	Anthracene	< 0.050		µg/l	0.050	0.013	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 0.050		µg/l	0.050	0.036	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.050		µg/l	0.050	0.036	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 0.050		µg/l	0.050	0.031	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 0.050		µg/l	0.050	0.026	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 0.050		µg/l	0.050	0.026	1	"	"	"	"	"	
218-01-9	Chrysene	< 0.050		µg/l	0.050	0.022	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.050		µg/l	0.050	0.030	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 0.050		µg/l	0.050	0.017	1	"	"	"	"	"	
86-73-7	Fluorene	< 0.050		µg/l	0.050	0.012	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.050		µg/l	0.050	0.029	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 0.050		µg/l	0.050	0.008	1	"	"	"	"	"	
91-20-3	Naphthalene	< 0.050		µg/l	0.050	0.016	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 0.050		µg/l	0.050	0.019	1	"	"	"	"	"	
129-00-0	Pyrene	< 0.050		µg/l	0.050	0.017	1	"	"	"	"	"	
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*44*			*30-130 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*54*			*30-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3510C													
12674-11-2	Aroclor-1016	< 0.0233		µg/l	0.0233	0.00100	1	EPA 608	09-Nov-11	11-Nov-11	IMR	1123220	X
11104-28-2	Aroclor-1221	< 0.0233		µg/l	0.0233	0.00166	1	"	"	"	"	"	X
11141-16-5	Aroclor-1232	< 0.0233		µg/l	0.0233	0.00156	1	"	"	"	"	"	X
53469-21-9	Aroclor-1242	< 0.0233		µg/l	0.0233	0.000849	1	"	"	"	"	"	X
12672-29-6	Aroclor-1248	< 0.0233		µg/l	0.0233	0.00131	1	"	"	"	"	"	X
11097-69-1	Aroclor-1254	< 0.0233		µg/l	0.0233	0.00115	1	"	"	"	"	"	X
11096-82-5	Aroclor-1260	< 0.0233		µg/l	0.0233	0.000674	1	"	"	"	"	"	X
37324-23-5	Aroclor-1262	< 0.0233		µg/l	0.0233	0.00101	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 0.0233		µg/l	0.0233	0.00110	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*386*	S02		*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*39*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*46*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*70*			*30-150 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
	Non-polar material (SGT-HEM)	< 1.0		mg/l	1.0	0.6	1	EPA 1664 Rev. A	11-Nov-11	14-Nov-11	JK	1123431	
Total Metals by EPA 200/6000 Series Methods													
	Preservation	**Field Preserved**		N/A			1	EPA 200/6000 methods	09-Nov-11	09-Nov-11	RH	1123257	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2 SB38837-03	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	10-Nov-11	10-Nov-11	arf	1123161	
7440-38-2	Arsenic	0.0042		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0020	1	"	"	"	"	"	
7439-89-6	Iron	2.83		mg/l	0.0150	0.0046	1	"	"	"	"	"	
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0008	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7440-36-0	Antimony	< 0.0060		mg/l	0.0060	0.0035	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0025	1	"	"	"	"	"	
Total Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	10-Nov-11	11-Nov-11	EDT	1123361	X
Soluble Metals by EPA 200/6000 Series Methods													
	Filtration	Field Filtered		N/A			1	EPA 200.7/3005A/6010			RH	1123262	
Soluble Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	11-Nov-11	11-Nov-11	ARF	1123495	
7440-38-2	Arsenic	0.0050		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-50-8	Copper	< 0.0050		mg/l	0.0050	0.0020	1	"	"	"	"	"	
7439-89-6	Iron	2.58		mg/l	0.0150	0.0046	1	"	"	"	"	"	
7440-02-0	Nickel	< 0.0050		mg/l	0.0050	0.0008	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7440-36-0	Antimony	< 0.0060		mg/l	0.0060	0.0035	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
7440-66-6	Zinc	< 0.0050		mg/l	0.0050	0.0025	1	"	"	"	"	"	
Soluble Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	11-Nov-11	11-Nov-11	EDT	1123496	X
General Chemistry Parameters													
16065-83-1	Trivalent Chromium	< 0.0050		mg/l	0.0050	0.0034	1	Calculation	10-Nov-11	10-Nov-11	arf	1123161	
16887-00-6	Chloride	489	GS1	mg/l	10.0	3.07	10	EPA 300.0	10-Nov-11	10-Nov-11	JAK	1123474	X
18540-29-9	Hexavalent Chromium	< 0.005		mg/l	0.005	0.002	1	SW846 7196A/SM3500CrD	08-Nov-11 19:32	08-Nov-11 19:45	GMA	1123212	
57-12-5	Cyanide (total)	< 0.00500		mg/l	0.00500	0.00498	1	EPA 335.4 / SW846 9012B	09-Nov-11	09-Nov-11	ELE	1123252	X
7782-50-5	Total Residual Chlorine	< 0.020	CIHT	mg/l	0.020	0.003	1	Hach 8167	08-Nov-11 19:54	08-Nov-11 19:54	GMA	1123213	X
	Total Suspended Solids	15		mg/l	5	3	1	SM2540D	09-Nov-11	09-Nov-11	BD	1123267	X
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7440-43-9	Cadmium	< 0.001		mg/L	0.001	0.001	1	6 010/200.7	02-Dec-11 01:47	02-Dec-11 01:47	MACT0	189844A	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7440-22-4	Silver (Dissolved)	< 0.001		mg/L	0.001	0.001	1	601 0/200.7	02-Dec-11 01:12	02-Dec-11 01:12	MACT0	189836A	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/002	Ground Water	08-Nov-11 09:25	08-Nov-11
SB38837-03				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Subcontracted Analyses													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7782-49-2	Selenium	< 0.010		mg/L	0.010	0.010	1	6010 / 200.7	02-Dec-11 01:47	02-Dec-11 01:47	MACT0	189844A	
Subcontracted Analyses Prepared by method 189836-601													
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7440-43-9	Cadmium (Dissolved)	< 0.001		mg/L	0.001	0.001	1	6010 /200.7	02-Dec-11 01:12	02-Dec-11 01:12	MACT0	189836A	
7439-92-1	Lead (Dissolved)	< 0.002		mg/L	0.002	0.002	1	"	"	"	"	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7440-36-0	Antimony (Dissolved)	< 0.005		mg/L	0.005	0.005	1	6010/2 00.7	"	"	MACT0	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7782-49-2	Selenium (Dissolved)	< 0.011		mg/L	0.011	0.011	1	6010/20 0.7	"	"	MACT0	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7439-92-1	Lead	< 0.002		mg/L	0.002	0.002	1	6010/200 .7	02-Dec-11 01:47	02-Dec-11 01:47	MACT0	189844A	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7440-36-0	Antimony	< 0.005		mg/L	0.005	0.005	1	6010/200. 7	"	"	MACT0	"	
*Analysis performed by Phoenix Environmental Labs, Inc. * - MACT007*													
7440-22-4	Silver	< 0.001		mg/L	0.001	0.001	1	6010/200.7	"	"	MACT0	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-1	413-06C/002	Aqueous	08-Nov-11 00:00	08-Nov-11
SB38837-04				

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	10-Nov-11	10-Nov-11	eq	1123358	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.6	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
71-43-2	Benzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.0		µg/l	2.0	1.1	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.7	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.0		µg/l	2.0	0.6	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.0		µg/l	2.0	1.0	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.0		µg/l	2.0	1.5	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0	0.9	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0	0.4	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.0		µg/l	1.0	0.5	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.5		µg/l	0.5	0.5	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.5		µg/l	0.5	0.4	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.5	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-1	413-06C/002	Aqueous	08-Nov-11 00:00	08-Nov-11
SB38837-04				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.0		µg/l	1.0	0.6	1	SW846 8260C	10-Nov-11	10-Nov-11	eq	1123358	
99-87-6	4-Isopropyltoluene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.9	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.0		µg/l	2.0	0.7	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.0		µg/l	1.0	0.3	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
100-42-5	Styrene	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5	0.3	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
108-88-3	Toluene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0	0.4	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0	0.6	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.0		µg/l	2.0	1.6	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.0		µg/l	1.0	0.9	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.0		µg/l	2.0	1.4	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.0		µg/l	1.0	0.8	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.0		µg/l	1.0	0.7	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.6	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.0		µg/l	5.0	0.8	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*95*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*96*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*99*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*98*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123266 - SW846 5030 Water MS										
Blank (1123266-BLK1)					Prepared & Analyzed: 09-Nov-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123266 - SW846 5030 Water MS										
Blank (1123266-BLK1)					Prepared & Analyzed: 09-Nov-11					
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*47.4*		µg/l		*50.0*		*95*	*70-130*		
Surrogate: Toluene-d8	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Dibromofluoromethane	*50.6*		µg/l		*50.0*		*101*	*70-130*		
LCS (1123266-BS1)					Prepared & Analyzed: 09-Nov-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**17.1**		µg/l		20.0		86	70-130		
Acetone	**15.8**		µg/l		20.0		79	70-130		
Acrylonitrile	**15.5**		µg/l		20.0		78	70-130		
Benzene	**19.9**		µg/l		20.0		99	70-130		
Bromobenzene	**19.6**		µg/l		20.0		98	70-130		
Bromochloromethane	**18.7**		µg/l		20.0		94	70-130		
Bromodichloromethane	**18.4**		µg/l		20.0		92	70-130		
Bromoform	**18.2**		µg/l		20.0		91	70-130		
Bromomethane	**14.3**		µg/l		20.0		71	70-130		
2-Butanone (MEK)	**14.5**		µg/l		20.0		72	70-130		
n-Butylbenzene	**20.7**		µg/l		20.0		103	70-130		
sec-Butylbenzene	**20.5**		µg/l		20.0		102	70-130		
tert-Butylbenzene	**20.7**		µg/l		20.0		103	70-130		
Carbon disulfide	**15.4**		µg/l		20.0		77	70-130		
Carbon tetrachloride	**20.1**		µg/l		20.0		101	70-130		
Chlorobenzene	**19.2**		µg/l		20.0		96	70-130		
Chloroethane	**15.1**		µg/l		20.0		76	70-130		
Chloroform	**18.2**		µg/l		20.0		91	70-130		
Chloromethane	**14.9**		µg/l		20.0		75	70-130		
2-Chlorotoluene	**20.6**		µg/l		20.0		103	70-130		
4-Chlorotoluene	**20.1**		µg/l		20.0		100	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123266 - SW846 5030 Water MS										
LCS (1123266-BS1)					Prepared & Analyzed: 09-Nov-11					
1,2-Dibromo-3-chloropropane	**19.3**		µg/l		20.0		97	70-130		
Dibromochloromethane	**18.5**		µg/l		20.0		92	70-130		
1,2-Dibromoethane (EDB)	**19.6**		µg/l		20.0		98	70-130		
Dibromomethane	**19.2**		µg/l		20.0		96	70-130		
1,2-Dichlorobenzene	**20.5**		µg/l		20.0		103	70-130		
1,3-Dichlorobenzene	**18.7**		µg/l		20.0		93	70-130		
1,4-Dichlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Dichlorodifluoromethane (Freon12)	**17.8**		µg/l		20.0		89	70-130		
1,1-Dichloroethane	**15.9**		µg/l		20.0		80	70-130		
1,2-Dichloroethane	**18.8**		µg/l		20.0		94	70-130		
1,1-Dichloroethene	**16.1**		µg/l		20.0		80	70-130		
cis-1,2-Dichloroethene	**19.3**		µg/l		20.0		97	70-130		
trans-1,2-Dichloroethene	**15.4**		µg/l		20.0		77	70-130		
1,2-Dichloropropane	**19.9**		µg/l		20.0		100	70-130		
1,3-Dichloropropane	**19.9**		µg/l		20.0		99	70-130		
2,2-Dichloropropane	**19.0**		µg/l		20.0		95	70-130		
1,1-Dichloropropene	**19.4**		µg/l		20.0		97	70-130		
cis-1,3-Dichloropropene	**18.5**		µg/l		20.0		92	70-130		
trans-1,3-Dichloropropene	**18.4**		µg/l		20.0		92	70-130		
Ethylbenzene	**20.2**		µg/l		20.0		101	70-130		
Hexachlorobutadiene	**20.3**		µg/l		20.0		101	70-130		
2-Hexanone (MBK)	**17.9**		µg/l		20.0		89	70-130		
Isopropylbenzene	**19.6**		µg/l		20.0		98	70-130		
4-Isopropyltoluene	**20.3**		µg/l		20.0		101	70-130		
Methyl tert-butyl ether	**15.1**		µg/l		20.0		76	70-130		
4-Methyl-2-pentanone (MIBK)	**18.0**		µg/l		20.0		90	70-130		
Methylene chloride	**15.7**		µg/l		20.0		79	70-130		
Naphthalene	**19.5**		µg/l		20.0		97	70-130		
n-Propylbenzene	**20.1**		µg/l		20.0		101	70-130		
Styrene	**20.6**		µg/l		20.0		103	70-130		
1,1,1,2-Tetrachloroethane	**18.1**		µg/l		20.0		91	70-130		
1,1,2,2-Tetrachloroethane	**23.3**		µg/l		20.0		116	70-130		
Tetrachloroethene	**18.2**		µg/l		20.0		91	70-130		
Toluene	**19.7**		µg/l		20.0		98	70-130		
1,2,3-Trichlorobenzene	**20.8**		µg/l		20.0		104	70-130		
1,2,4-Trichlorobenzene	**20.1**		µg/l		20.0		101	70-130		
1,3,5-Trichlorobenzene	**19.4**		µg/l		20.0		97	70-130		
1,1,1-Trichloroethane	**19.5**		µg/l		20.0		98	70-130		
1,1,2-Trichloroethane	**20.1**		µg/l		20.0		101	70-130		
Trichloroethene	**17.3**		µg/l		20.0		87	70-130		
Trichlorofluoromethane (Freon 11)	**17.5**		µg/l		20.0		88	70-130		
1,2,3-Trichloropropane	**19.6**		µg/l		20.0		98	70-130		
1,2,4-Trimethylbenzene	**20.3**		µg/l		20.0		101	70-130		
1,3,5-Trimethylbenzene	**20.5**		µg/l		20.0		103	70-130		
Vinyl chloride	**14.8**		µg/l		20.0		74	70-130		
m,p-Xylene	**40.7**		µg/l		40.0		102	70-130		
o-Xylene	**20.2**		µg/l		20.0		101	70-130		
Tetrahydrofuran	**19.5**		µg/l		20.0		97	70-130		
Ethyl ether	**15.6**		µg/l		20.0		78	70-130		
Tert-amyl methyl ether	**18.8**		µg/l		20.0		94	70-130		
Ethyl tert-butyl ether	**17.8**		µg/l		20.0		89	70-130		
Di-isopropyl ether	**19.2**		µg/l		20.0		96	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123266 - SW846 5030 Water MS										
LCS (1123266-BS1)						Prepared & Analyzed: 09-Nov-11				
Tert-Butanol / butyl alcohol	**143**		µg/l		200		71	70-130		
1,4-Dioxane	**179**		µg/l		200		90	70-130		
trans-1,4-Dichloro-2-butene	**16.6**		µg/l		20.0		83	70-130		
Ethanol	**291**		µg/l		400		73	70-130		
Surrogate: 4-Bromofluorobenzene	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: Toluene-d8	*49.5*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*47.6*		µg/l		*50.0*		*95*	*70-130*		
Surrogate: Dibromofluoromethane	*49.8*		µg/l		*50.0*		*100*	*70-130*		
LCS Dup (1123266-BSD1)						Prepared & Analyzed: 09-Nov-11				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**16.6**		µg/l		20.0		83	70-130	3	25
Acetone	**16.2**		µg/l		20.0		81	70-130	3	50
Acrylonitrile	**15.6**		µg/l		20.0		78	70-130	0.3	25
Benzene	**19.6**		µg/l		20.0		98	70-130	1	25
Bromobenzene	**19.1**		µg/l		20.0		96	70-130	3	25
Bromochloromethane	**18.9**		µg/l		20.0		94	70-130	0.9	25
Bromodichloromethane	**18.2**		µg/l		20.0		91	70-130	1	25
Bromoform	**18.2**		µg/l		20.0		91	70-130	0.3	25
Bromomethane	**14.9**		µg/l		20.0		75	70-130	4	50
2-Butanone (MEK)	**16.1**		µg/l		20.0		80	70-130	10	50
n-Butylbenzene	**20.4**		µg/l		20.0		102	70-130	1	25
sec-Butylbenzene	**19.2**		µg/l		20.0		96	70-130	7	25
tert-Butylbenzene	**19.6**		µg/l		20.0		98	70-130	5	25
Carbon disulfide	**15.3**		µg/l		20.0		76	70-130	1	25
Carbon tetrachloride	**20.0**		µg/l		20.0		100	70-130	0.7	25
Chlorobenzene	**18.9**		µg/l		20.0		95	70-130	2	25
Chloroethane	**15.4**		µg/l		20.0		77	70-130	2	50
Chloroform	**18.2**		µg/l		20.0		91	70-130	0.2	25
Chloromethane	**15.0**		µg/l		20.0		75	70-130	0.6	25
2-Chlorotoluene	**19.4**		µg/l		20.0		97	70-130	6	25
4-Chlorotoluene	**19.0**		µg/l		20.0		95	70-130	5	25
1,2-Dibromo-3-chloropropane	**19.7**		µg/l		20.0		98	70-130	2	25
Dibromochloromethane	**18.8**		µg/l		20.0		94	70-130	2	50
1,2-Dibromoethane (EDB)	**19.8**		µg/l		20.0		99	70-130	1	25
Dibromomethane	**19.4**		µg/l		20.0		97	70-130	1	25
1,2-Dichlorobenzene	**20.6**		µg/l		20.0		103	70-130	0.1	25
1,3-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130	1	25
1,4-Dichlorobenzene	**18.9**		µg/l		20.0		95	70-130	0.2	25
Dichlorodifluoromethane (Freon12)	**16.9**		µg/l		20.0		85	70-130	5	50
1,1-Dichloroethane	**15.8**		µg/l		20.0		79	70-130	1	25
1,2-Dichloroethane	**18.5**		µg/l		20.0		92	70-130	2	25
1,1-Dichloroethene	**15.6**		µg/l		20.0		78	70-130	3	25
cis-1,2-Dichloroethene	**19.2**		µg/l		20.0		96	70-130	0.8	25
trans-1,2-Dichloroethene	**15.4**		µg/l		20.0		77	70-130	0.1	25
1,2-Dichloropropane	**19.9**		µg/l		20.0		99	70-130	0.2	25
1,3-Dichloropropane	**20.3**		µg/l		20.0		101	70-130	2	25
2,2-Dichloropropane	**18.8**		µg/l		20.0		94	70-130	1	25
1,1-Dichloropropene	**19.2**		µg/l		20.0		96	70-130	0.9	25
cis-1,3-Dichloropropene	**18.4**		µg/l		20.0		92	70-130	0.5	25
trans-1,3-Dichloropropene	**18.8**		µg/l		20.0		94	70-130	3	25
Ethylbenzene	**19.7**		µg/l		20.0		99	70-130	2	25
Hexachlorobutadiene	**20.3**		µg/l		20.0		102	70-130	0.1	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123266 - SW846 5030 Water MS										
LCS Dup (1123266-BSD1)					Prepared & Analyzed: 09-Nov-11					
2-Hexanone (MBK)	**17.9**		µg/l		20.0		90	70-130	0.1	25
Isopropylbenzene	**19.0**		µg/l		20.0		95	70-130	3	25
4-Isopropyltoluene	**20.0**		µg/l		20.0		100	70-130	1	25
Methyl tert-butyl ether	**15.5**		µg/l		20.0		77	70-130	2	25
4-Methyl-2-pentanone (MIBK)	**18.8**		µg/l		20.0		94	70-130	4	50
Methylene chloride	**15.4**		µg/l		20.0		77	70-130	2	25
Naphthalene	**18.9**		µg/l		20.0		94	70-130	3	25
n-Propylbenzene	**19.8**		µg/l		20.0		99	70-130	2	25
Styrene	**19.8**		µg/l		20.0		99	70-130	4	25
1,1,1,2-Tetrachloroethane	**18.0**		µg/l		20.0		90	70-130	0.4	25
1,1,2,2-Tetrachloroethane	**22.8**		µg/l		20.0		114	70-130	2	25
Tetrachloroethene	**17.9**		µg/l		20.0		90	70-130	2	25
Toluene	**19.4**		µg/l		20.0		97	70-130	1	25
1,2,3-Trichlorobenzene	**20.4**		µg/l		20.0		102	70-130	2	25
1,2,4-Trichlorobenzene	**19.6**		µg/l		20.0		98	70-130	3	25
1,3,5-Trichlorobenzene	**19.4**		µg/l		20.0		97	70-130	0.2	25
1,1,1-Trichloroethane	**19.2**		µg/l		20.0		96	70-130	2	25
1,1,2-Trichloroethane	**19.8**		µg/l		20.0		99	70-130	2	25
Trichloroethene	**17.4**		µg/l		20.0		87	70-130	0.2	25
Trichlorofluoromethane (Freon 11)	**16.6**		µg/l		20.0		83	70-130	5	50
1,2,3-Trichloropropane	**19.2**		µg/l		20.0		96	70-130	2	25
1,2,4-Trimethylbenzene	**19.5**		µg/l		20.0		97	70-130	4	25
1,3,5-Trimethylbenzene	**19.7**		µg/l		20.0		99	70-130	4	25
Vinyl chloride	**14.6**		µg/l		20.0		73	70-130	1	25
m,p-Xylene	**39.5**		µg/l		40.0		99	70-130	3	25
o-Xylene	**19.7**		µg/l		20.0		98	70-130	2	25
Tetrahydrofuran	**19.2**		µg/l		20.0		96	70-130	2	25
Ethyl ether	**15.7**		µg/l		20.0		79	70-130	0.7	50
Tert-amyl methyl ether	**18.9**		µg/l		20.0		95	70-130	0.8	25
Ethyl tert-butyl ether	**18.3**		µg/l		20.0		91	70-130	2	25
Di-isopropyl ether	**19.2**		µg/l		20.0		96	70-130	0.2	25
Tert-Butanol / butyl alcohol	**137**	QM9	µg/l		200		69	70-130	4	25
1,4-Dioxane	**186**		µg/l		200		93	70-130	4	25
trans-1,4-Dichloro-2-butene	**16.0**		µg/l		20.0		80	70-130	4	25
Ethanol	**292**		µg/l		400		73	70-130	0.2	30
Surrogate: 4-Bromofluorobenzene	*49.6*		µg/l		*50.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*49.9*		µg/l		*50.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*48.8*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*50.4*		µg/l		*50.0*		*101*	*70-130*		
Batch 1123358 - SW846 5030 Water MS										
Blank (1123358-BLK1)					Prepared & Analyzed: 10-Nov-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123358 - SW846 5030 Water MS										
Blank (1123358-BLK1)						Prepared & Analyzed: 10-Nov-11				
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123358 - SW846 5030 Water MS										
Blank (1123358-BLK1)					Prepared & Analyzed: 10-Nov-11					
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*28.2*		µg/l		*30.0*		*94*	*70-130*		
Surrogate: Toluene-d8	*28.6*		µg/l		*30.0*		*95*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*30.8*		µg/l		*30.0*		*103*	*70-130*		
Surrogate: Dibromofluoromethane	*29.6*		µg/l		*30.0*		*98*	*70-130*		
LCS (1123358-BS1)					Prepared & Analyzed: 10-Nov-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**24.5**		µg/l		20.0		122	70-130		
Acetone	**25.9**		µg/l		20.0		129	70-130		
Acrylonitrile	**19.6**		µg/l		20.0		98	70-130		
Benzene	**19.8**		µg/l		20.0		99	70-130		
Bromobenzene	**19.9**		µg/l		20.0		100	70-130		
Bromochloromethane	**19.4**		µg/l		20.0		97	70-130		
Bromodichloromethane	**18.5**		µg/l		20.0		92	70-130		
Bromoform	**19.4**		µg/l		20.0		97	70-130		
Bromomethane	**21.0**		µg/l		20.0		105	70-130		
2-Butanone (MEK)	**19.9**		µg/l		20.0		100	70-130		
n-Butylbenzene	**21.5**		µg/l		20.0		108	70-130		
sec-Butylbenzene	**23.3**		µg/l		20.0		117	70-130		
tert-Butylbenzene	**23.6**		µg/l		20.0		118	70-130		
Carbon disulfide	**19.6**		µg/l		20.0		98	70-130		
Carbon tetrachloride	**21.9**		µg/l		20.0		110	70-130		
Chlorobenzene	**19.8**		µg/l		20.0		99	70-130		
Chloroethane	**20.5**		µg/l		20.0		103	70-130		
Chloroform	**16.9**		µg/l		20.0		85	70-130		
Chloromethane	**20.5**		µg/l		20.0		102	70-130		
2-Chlorotoluene	**21.5**		µg/l		20.0		107	70-130		
4-Chlorotoluene	**21.8**		µg/l		20.0		109	70-130		
1,2-Dibromo-3-chloropropane	**17.9**		µg/l		20.0		90	70-130		
Dibromochloromethane	**20.1**		µg/l		20.0		100	70-130		
1,2-Dibromoethane (EDB)	**20.5**		µg/l		20.0		103	70-130		
Dibromomethane	**18.4**		µg/l		20.0		92	70-130		
1,2-Dichlorobenzene	**19.5**		µg/l		20.0		98	70-130		
1,3-Dichlorobenzene	**20.6**		µg/l		20.0		103	70-130		
1,4-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130		
Dichlorodifluoromethane (Freon12)	**25.6**		µg/l		20.0		128	70-130		
1,1-Dichloroethane	**18.9**		µg/l		20.0		95	70-130		
1,2-Dichloroethane	**18.2**		µg/l		20.0		91	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123358 - SW846 5030 Water MS										
LCS (1123358-BS1)						Prepared & Analyzed: 10-Nov-11				
1,1-Dichloroethene	**22.0**		µg/l		20.0		110	70-130		
cis-1,2-Dichloroethene	**19.0**		µg/l		20.0		95	70-130		
trans-1,2-Dichloroethene	**18.7**		µg/l		20.0		93	70-130		
1,2-Dichloropropane	**19.1**		µg/l		20.0		96	70-130		
1,3-Dichloropropane	**19.4**		µg/l		20.0		97	70-130		
2,2-Dichloropropane	**19.9**		µg/l		20.0		100	70-130		
1,1-Dichloropropene	**20.4**		µg/l		20.0		102	70-130		
cis-1,3-Dichloropropene	**19.2**		µg/l		20.0		96	70-130		
trans-1,3-Dichloropropene	**18.7**		µg/l		20.0		93	70-130		
Ethylbenzene	**21.2**		µg/l		20.0		106	70-130		
Hexachlorobutadiene	**20.2**		µg/l		20.0		101	70-130		
2-Hexanone (MBK)	**19.4**		µg/l		20.0		97	70-130		
Isopropylbenzene	**20.8**		µg/l		20.0		104	70-130		
4-Isopropyltoluene	**20.8**		µg/l		20.0		104	70-130		
Methyl tert-butyl ether	**20.4**		µg/l		20.0		102	70-130		
4-Methyl-2-pentanone (MIBK)	**20.2**		µg/l		20.0		101	70-130		
Methylene chloride	**19.4**		µg/l		20.0		97	70-130		
Naphthalene	**30.8**	QM9	µg/l		20.0		154	70-130		
n-Propylbenzene	**21.6**		µg/l		20.0		108	70-130		
Styrene	**22.1**		µg/l		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	**20.9**		µg/l		20.0		105	70-130		
1,1,2,2-Tetrachloroethane	**21.5**		µg/l		20.0		107	70-130		
Tetrachloroethene	**19.1**		µg/l		20.0		95	70-130		
Toluene	**19.1**		µg/l		20.0		96	70-130		
1,2,3-Trichlorobenzene	**18.8**		µg/l		20.0		94	70-130		
1,2,4-Trichlorobenzene	**18.1**		µg/l		20.0		90	70-130		
1,3,5-Trichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,1,1-Trichloroethane	**20.0**		µg/l		20.0		100	70-130		
1,1,2-Trichloroethane	**18.2**		µg/l		20.0		91	70-130		
Trichloroethene	**19.6**		µg/l		20.0		98	70-130		
Trichlorofluoromethane (Freon 11)	**24.6**		µg/l		20.0		123	70-130		
1,2,3-Trichloropropane	**20.5**		µg/l		20.0		102	70-130		
1,2,4-Trimethylbenzene	**22.9**		µg/l		20.0		114	70-130		
1,3,5-Trimethylbenzene	**22.2**		µg/l		20.0		111	70-130		
Vinyl chloride	**24.1**		µg/l		20.0		120	70-130		
m,p-Xylene	**44.9**		µg/l		40.0		112	70-130		
o-Xylene	**22.3**		µg/l		20.0		111	70-130		
Tetrahydrofuran	**20.5**		µg/l		20.0		102	70-130		
Ethyl ether	**22.4**		µg/l		20.0		112	70-130		
Tert-amyl methyl ether	**18.7**		µg/l		20.0		93	70-130		
Ethyl tert-butyl ether	**19.6**		µg/l		20.0		98	70-130		
Di-isopropyl ether	**19.2**		µg/l		20.0		96	70-130		
Tert-Butanol / butyl alcohol	**236**		µg/l		200		118	70-130		
1,4-Dioxane	**220**		µg/l		200		110	70-130		
trans-1,4-Dichloro-2-butene	**21.6**		µg/l		20.0		108	70-130		
Ethanol	**418**		µg/l		400		105	70-130		
Surrogate: 4-Bromofluorobenzene	*32.7*		µg/l		*30.0*		*109*	*70-130*		
Surrogate: Toluene-d8	*29.8*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*28.8*		µg/l		*30.0*		*96*	*70-130*		
Surrogate: Dibromofluoromethane	*29.5*		µg/l		*30.0*		*98*	*70-130*		
LCS Dup (1123358-BSD1)						Prepared & Analyzed: 10-Nov-11				

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123358 - SW846 5030 Water MS										
LCS Dup (1123358-BSD1)					Prepared & Analyzed: 10-Nov-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**24.3**		µg/l		20.0		122	70-130	0.7	25
Acetone	**18.3**		µg/l		20.0		91	70-130	35	50
Acrylonitrile	**20.0**		µg/l		20.0		100	70-130	2	25
Benzene	**18.9**		µg/l		20.0		95	70-130	4	25
Bromobenzene	**19.4**		µg/l		20.0		97	70-130	3	25
Bromochloromethane	**18.6**		µg/l		20.0		93	70-130	4	25
Bromodichloromethane	**18.0**		µg/l		20.0		90	70-130	3	25
Bromoform	**17.7**		µg/l		20.0		88	70-130	9	25
Bromomethane	**21.5**		µg/l		20.0		107	70-130	2	50
2-Butanone (MEK)	**19.4**		µg/l		20.0		97	70-130	3	50
n-Butylbenzene	**20.8**		µg/l		20.0		104	70-130	3	25
sec-Butylbenzene	**22.4**		µg/l		20.0		112	70-130	4	25
tert-Butylbenzene	**22.3**		µg/l		20.0		112	70-130	5	25
Carbon disulfide	**18.5**		µg/l		20.0		92	70-130	6	25
Carbon tetrachloride	**19.7**		µg/l		20.0		99	70-130	10	25
Chlorobenzene	**19.0**		µg/l		20.0		95	70-130	4	25
Chloroethane	**19.5**		µg/l		20.0		97	70-130	5	50
Chloroform	**16.5**		µg/l		20.0		83	70-130	2	25
Chloromethane	**19.3**		µg/l		20.0		96	70-130	6	25
2-Chlorotoluene	**20.6**		µg/l		20.0		103	70-130	4	25
4-Chlorotoluene	**20.9**		µg/l		20.0		104	70-130	4	25
1,2-Dibromo-3-chloropropane	**17.8**		µg/l		20.0		89	70-130	0.7	25
Dibromochloromethane	**19.2**		µg/l		20.0		96	70-130	4	50
1,2-Dibromoethane (EDB)	**19.9**		µg/l		20.0		100	70-130	3	25
Dibromomethane	**17.9**		µg/l		20.0		89	70-130	3	25
1,2-Dichlorobenzene	**19.2**		µg/l		20.0		96	70-130	2	25
1,3-Dichlorobenzene	**19.1**		µg/l		20.0		96	70-130	8	25
1,4-Dichlorobenzene	**18.1**		µg/l		20.0		91	70-130	2	25
Dichlorodifluoromethane (Freon12)	**23.5**		µg/l		20.0		118	70-130	9	50
1,1-Dichloroethane	**18.2**		µg/l		20.0		91	70-130	4	25
1,2-Dichloroethane	**17.8**		µg/l		20.0		89	70-130	3	25
1,1-Dichloroethene	**21.8**		µg/l		20.0		109	70-130	0.6	25
cis-1,2-Dichloroethene	**18.6**		µg/l		20.0		93	70-130	2	25
trans-1,2-Dichloroethene	**17.9**		µg/l		20.0		90	70-130	4	25
1,2-Dichloropropane	**17.7**		µg/l		20.0		89	70-130	8	25
1,3-Dichloropropane	**18.1**		µg/l		20.0		91	70-130	7	25
2,2-Dichloropropane	**19.4**		µg/l		20.0		97	70-130	3	25
1,1-Dichloropropene	**19.0**		µg/l		20.0		95	70-130	7	25
cis-1,3-Dichloropropene	**18.5**		µg/l		20.0		93	70-130	3	25
trans-1,3-Dichloropropene	**18.6**		µg/l		20.0		93	70-130	0.2	25
Ethylbenzene	**20.6**		µg/l		20.0		103	70-130	3	25
Hexachlorobutadiene	**20.0**		µg/l		20.0		100	70-130	1	50
2-Hexanone (MBK)	**19.4**		µg/l		20.0		97	70-130	0	25
Isopropylbenzene	**19.7**		µg/l		20.0		98	70-130	6	25
4-Isopropyltoluene	**21.5**		µg/l		20.0		107	70-130	3	25
Methyl tert-butyl ether	**19.0**		µg/l		20.0		95	70-130	7	25
4-Methyl-2-pentanone (MIBK)	**20.2**		µg/l		20.0		101	70-130	0.1	50
Methylene chloride	**19.2**		µg/l		20.0		96	70-130	0.6	25
Naphthalene	**21.3**	QR5	µg/l		20.0		106	70-130	36	25
n-Propylbenzene	**21.1**		µg/l		20.0		106	70-130	2	25
Styrene	**21.0**		µg/l		20.0		105	70-130	5	25
1,1,1,2-Tetrachloroethane	**19.1**		µg/l		20.0		95	70-130	9	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123358 - SW846 5030 Water MS										
LCS Dup (1123358-BSD1)					Prepared & Analyzed: 10-Nov-11					
1,1,2,2-Tetrachloroethane	**20.8**		µg/l		20.0		104	70-130	3	25
Tetrachloroethene	**18.1**		µg/l		20.0		91	70-130	5	25
Toluene	**17.9**		µg/l		20.0		89	70-130	7	25
1,2,3-Trichlorobenzene	**18.3**		µg/l		20.0		92	70-130	2	25
1,2,4-Trichlorobenzene	**17.6**		µg/l		20.0		88	70-130	3	25
1,3,5-Trichlorobenzene	**19.3**		µg/l		20.0		97	70-130	3	25
1,1,1-Trichloroethane	**18.8**		µg/l		20.0		94	70-130	6	25
1,1,2-Trichloroethane	**19.1**		µg/l		20.0		95	70-130	5	25
Trichloroethene	**18.2**		µg/l		20.0		91	70-130	7	25
Trichlorofluoromethane (Freon 11)	**22.6**		µg/l		20.0		113	70-130	8	50
1,2,3-Trichloropropane	**19.9**		µg/l		20.0		99	70-130	3	25
1,2,4-Trimethylbenzene	**21.8**		µg/l		20.0		109	70-130	5	25
1,3,5-Trimethylbenzene	**21.4**		µg/l		20.0		107	70-130	3	25
Vinyl chloride	**22.8**		µg/l		20.0		114	70-130	6	25
m,p-Xylene	**42.8**		µg/l		40.0		107	70-130	5	25
o-Xylene	**20.4**		µg/l		20.0		102	70-130	9	25
Tetrahydrofuran	**18.5**		µg/l		20.0		92	70-130	10	25
Ethyl ether	**18.8**		µg/l		20.0		94	70-130	18	50
Tert-amyl methyl ether	**18.6**		µg/l		20.0		93	70-130	0.5	25
Ethyl tert-butyl ether	**20.2**		µg/l		20.0		101	70-130	3	25
Di-isopropyl ether	**19.0**		µg/l		20.0		95	70-130	2	25
Tert-Butanol / butyl alcohol	**171**	QR2	µg/l		200		85	70-130	32	25
1,4-Dioxane	**132**	QR2	µg/l		200		66	70-130	50	25
trans-1,4-Dichloro-2-butene	**18.4**		µg/l		20.0		92	70-130	16	25
Ethanol	**276**	QM9, QR5	µg/l		400		69	70-130	41	30
Surrogate: 4-Bromofluorobenzene	*31.7*		µg/l		*30.0*		*106*	*70-130*		
Surrogate: Toluene-d8	*29.4*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*27.4*		µg/l		*30.0*		*91*	*70-130*		
Surrogate: Dibromofluoromethane	*28.9*		µg/l		*30.0*		*96*	*70-130*		
Batch 1123368 - SW846 5030 Water MS										
Blank (1123368-BLK1)					Prepared & Analyzed: 10-Nov-11					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.0		µg/l	1.0						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.5		µg/l	0.5						
Benzene	< 1.0		µg/l	1.0						
Bromobenzene	< 1.0		µg/l	1.0						
Bromochloromethane	< 1.0		µg/l	1.0						
Bromodichloromethane	< 0.5		µg/l	0.5						
Bromoform	< 1.0		µg/l	1.0						
Bromomethane	< 2.0		µg/l	2.0						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.0		µg/l	1.0						
sec-Butylbenzene	< 1.0		µg/l	1.0						
tert-Butylbenzene	< 1.0		µg/l	1.0						
Carbon disulfide	< 2.0		µg/l	2.0						
Carbon tetrachloride	< 1.0		µg/l	1.0						
Chlorobenzene	< 1.0		µg/l	1.0						
Chloroethane	< 2.0		µg/l	2.0						
Chloroform	< 1.0		µg/l	1.0						
Chloromethane	< 2.0		µg/l	2.0						
2-Chlorotoluene	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123368 - SW846 5030 Water MS										
Blank (1123368-BLK1)					Prepared & Analyzed: 10-Nov-11					
4-Chlorotoluene	< 1.0		µg/l	1.0						
1,2-Dibromo-3-chloropropane	< 2.0		µg/l	2.0						
Dibromochloromethane	< 0.5		µg/l	0.5						
1,2-Dibromoethane (EDB)	< 0.5		µg/l	0.5						
Dibromomethane	< 1.0		µg/l	1.0						
1,2-Dichlorobenzene	< 1.0		µg/l	1.0						
1,3-Dichlorobenzene	< 1.0		µg/l	1.0						
1,4-Dichlorobenzene	< 1.0		µg/l	1.0						
Dichlorodifluoromethane (Freon12)	< 2.0		µg/l	2.0						
1,1-Dichloroethane	< 1.0		µg/l	1.0						
1,2-Dichloroethane	< 1.0		µg/l	1.0						
1,1-Dichloroethene	< 1.0		µg/l	1.0						
cis-1,2-Dichloroethene	< 1.0		µg/l	1.0						
trans-1,2-Dichloroethene	< 1.0		µg/l	1.0						
1,2-Dichloropropane	< 1.0		µg/l	1.0						
1,3-Dichloropropane	< 1.0		µg/l	1.0						
2,2-Dichloropropane	< 1.0		µg/l	1.0						
1,1-Dichloropropene	< 1.0		µg/l	1.0						
cis-1,3-Dichloropropene	< 0.5		µg/l	0.5						
trans-1,3-Dichloropropene	< 0.5		µg/l	0.5						
Ethylbenzene	< 1.0		µg/l	1.0						
Hexachlorobutadiene	< 0.5		µg/l	0.5						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.0		µg/l	1.0						
4-Isopropyltoluene	< 1.0		µg/l	1.0						
Methyl tert-butyl ether	< 1.0		µg/l	1.0						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.0		µg/l	2.0						
Naphthalene	< 1.0		µg/l	1.0						
n-Propylbenzene	< 1.0		µg/l	1.0						
Styrene	< 1.0		µg/l	1.0						
1,1,1,2-Tetrachloroethane	< 1.0		µg/l	1.0						
1,1,2,2-Tetrachloroethane	< 0.5		µg/l	0.5						
Tetrachloroethene	< 1.0		µg/l	1.0						
Toluene	< 1.0		µg/l	1.0						
1,2,3-Trichlorobenzene	< 1.0		µg/l	1.0						
1,2,4-Trichlorobenzene	< 1.0		µg/l	1.0						
1,3,5-Trichlorobenzene	< 1.0		µg/l	1.0						
1,1,1-Trichloroethane	< 1.0		µg/l	1.0						
1,1,2-Trichloroethane	< 1.0		µg/l	1.0						
Trichloroethene	< 1.0		µg/l	1.0						
Trichlorofluoromethane (Freon 11)	< 1.0		µg/l	1.0						
1,2,3-Trichloropropane	< 1.0		µg/l	1.0						
1,2,4-Trimethylbenzene	< 1.0		µg/l	1.0						
1,3,5-Trimethylbenzene	< 1.0		µg/l	1.0						
Vinyl chloride	< 1.0		µg/l	1.0						
m,p-Xylene	< 2.0		µg/l	2.0						
o-Xylene	< 1.0		µg/l	1.0						
Tetrahydrofuran	< 2.0		µg/l	2.0						
Ethyl ether	< 1.0		µg/l	1.0						
Tert-amyl methyl ether	< 1.0		µg/l	1.0						
Ethyl tert-butyl ether	< 1.0		µg/l	1.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123368 - SW846 5030 Water MS										
Blank (1123368-BLK1)						Prepared & Analyzed: 10-Nov-11				
Di-isopropyl ether	< 1.0		µg/l	1.0						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.0		µg/l	5.0						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*29.4*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*29.5*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*29.4*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: Dibromofluoromethane	*30.0*		µg/l		*30.0*		*100*	*70-130*		
LCS (1123368-BS1)						Prepared & Analyzed: 10-Nov-11				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**21.0**		µg/l		20.0		105	70-130		
Acetone	**29.4**		µg/l		20.0		147	70-130		
Acrylonitrile	**17.4**		µg/l		20.0		87	70-130		
Benzene	**19.1**		µg/l		20.0		96	70-130		
Bromobenzene	**19.6**		µg/l		20.0		98	70-130		
Bromochloromethane	**20.0**		µg/l		20.0		100	70-130		
Bromodichloromethane	**18.1**		µg/l		20.0		90	70-130		
Bromoform	**17.2**		µg/l		20.0		86	70-130		
Bromomethane	**19.0**		µg/l		20.0		95	70-130		
2-Butanone (MEK)	**21.3**		µg/l		20.0		106	70-130		
n-Butylbenzene	**19.1**		µg/l		20.0		95	70-130		
sec-Butylbenzene	**20.5**		µg/l		20.0		103	70-130		
tert-Butylbenzene	**21.5**		µg/l		20.0		108	70-130		
Carbon disulfide	**15.4**		µg/l		20.0		77	70-130		
Carbon tetrachloride	**20.2**		µg/l		20.0		101	70-130		
Chlorobenzene	**18.8**		µg/l		20.0		94	70-130		
Chloroethane	**17.4**		µg/l		20.0		87	70-130		
Chloroform	**17.7**		µg/l		20.0		88	70-130		
Chloromethane	**17.9**		µg/l		20.0		89	70-130		
2-Chlorotoluene	**19.3**		µg/l		20.0		96	70-130		
4-Chlorotoluene	**19.6**		µg/l		20.0		98	70-130		
1,2-Dibromo-3-chloropropane	**20.5**		µg/l		20.0		103	70-130		
Dibromochloromethane	**19.7**		µg/l		20.0		98	70-130		
1,2-Dibromoethane (EDB)	**20.3**		µg/l		20.0		102	70-130		
Dibromomethane	**18.8**		µg/l		20.0		94	70-130		
1,2-Dichlorobenzene	**19.3**		µg/l		20.0		96	70-130		
1,3-Dichlorobenzene	**19.1**		µg/l		20.0		96	70-130		
1,4-Dichlorobenzene	**17.8**		µg/l		20.0		89	70-130		
Dichlorodifluoromethane (Freon12)	**22.1**		µg/l		20.0		110	70-130		
1,1-Dichloroethane	**15.4**		µg/l		20.0		77	70-130		
1,2-Dichloroethane	**18.4**		µg/l		20.0		92	70-130		
1,1-Dichloroethene	**19.4**		µg/l		20.0		97	70-130		
cis-1,2-Dichloroethene	**17.5**		µg/l		20.0		87	70-130		
trans-1,2-Dichloroethene	**15.4**		µg/l		20.0		77	70-130		
1,2-Dichloropropane	**18.8**		µg/l		20.0		94	70-130		
1,3-Dichloropropane	**19.9**		µg/l		20.0		100	70-130		
2,2-Dichloropropane	**16.1**		µg/l		20.0		81	70-130		
1,1-Dichloropropene	**18.9**		µg/l		20.0		94	70-130		
cis-1,3-Dichloropropene	**18.3**		µg/l		20.0		92	70-130		
trans-1,3-Dichloropropene	**18.1**		µg/l		20.0		91	70-130		
Ethylbenzene	**19.9**		µg/l		20.0		99	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123368 - SW846 5030 Water MS										
LCS (1123368-BS1)						Prepared & Analyzed: 10-Nov-11				
Hexachlorobutadiene	**18.2**		µg/l		20.0		91	70-130		
2-Hexanone (MBK)	**22.4**		µg/l		20.0		112	70-130		
Isopropylbenzene	**19.0**		µg/l		20.0		95	70-130		
4-Isopropyltoluene	**19.2**		µg/l		20.0		96	70-130		
Methyl tert-butyl ether	**19.0**		µg/l		20.0		95	70-130		
4-Methyl-2-pentanone (MIBK)	**20.6**		µg/l		20.0		103	70-130		
Methylene chloride	**18.0**		µg/l		20.0		90	70-130		
Naphthalene	**19.2**		µg/l		20.0		96	70-130		
n-Propylbenzene	**19.7**		µg/l		20.0		98	70-130		
Styrene	**19.1**		µg/l		20.0		96	70-130		
1,1,1,2-Tetrachloroethane	**19.2**		µg/l		20.0		96	70-130		
1,1,2,2-Tetrachloroethane	**21.1**		µg/l		20.0		105	70-130		
Tetrachloroethene	**18.3**		µg/l		20.0		92	70-130		
Toluene	**17.9**		µg/l		20.0		89	70-130		
1,2,3-Trichlorobenzene	**16.8**		µg/l		20.0		84	70-130		
1,2,4-Trichlorobenzene	**15.9**		µg/l		20.0		79	70-130		
1,3,5-Trichlorobenzene	**18.1**		µg/l		20.0		90	70-130		
1,1,1-Trichloroethane	**18.5**		µg/l		20.0		92	70-130		
1,1,2-Trichloroethane	**18.8**		µg/l		20.0		94	70-130		
Trichloroethene	**19.0**		µg/l		20.0		95	70-130		
Trichlorofluoromethane (Freon 11)	**22.6**		µg/l		20.0		113	70-130		
1,2,3-Trichloropropane	**20.5**		µg/l		20.0		102	70-130		
1,2,4-Trimethylbenzene	**20.3**		µg/l		20.0		102	70-130		
1,3,5-Trimethylbenzene	**19.3**		µg/l		20.0		97	70-130		
Vinyl chloride	**19.9**		µg/l		20.0		99	70-130		
m,p-Xylene	**41.4**		µg/l		40.0		103	70-130		
o-Xylene	**19.9**		µg/l		20.0		99	70-130		
Tetrahydrofuran	**23.9**		µg/l		20.0		120	70-130		
Ethyl ether	**19.1**		µg/l		20.0		95	70-130		
Tert-amyl methyl ether	**19.6**		µg/l		20.0		98	70-130		
Ethyl tert-butyl ether	**20.8**		µg/l		20.0		104	70-130		
Di-isopropyl ether	**17.9**		µg/l		20.0		89	70-130		
Tert-Butanol / butyl alcohol	**212**		µg/l		200		106	70-130		
1,4-Dioxane	**214**		µg/l		200		107	70-130		
trans-1,4-Dichloro-2-butene	**18.2**		µg/l		20.0		91	70-130		
Ethanol	**508**		µg/l		400		127	70-130		
Surrogate: 4-Bromofluorobenzene	*31.4*		µg/l		*30.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*29.2*		µg/l		*30.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*30.4*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Dibromofluoromethane	*28.9*		µg/l		*30.0*		*96*	*70-130*		
LCS Dup (1123368-BSD1)						Prepared & Analyzed: 10-Nov-11				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.3**		µg/l		20.0		112	70-130	6	25
Acetone	**27.7**		µg/l		20.0		138	70-130	6	50
Acrylonitrile	**18.0**		µg/l		20.0		90	70-130	4	25
Benzene	**18.8**		µg/l		20.0		94	70-130	2	25
Bromobenzene	**19.2**		µg/l		20.0		96	70-130	2	25
Bromochloromethane	**17.2**		µg/l		20.0		86	70-130	15	25
Bromodichloromethane	**17.9**		µg/l		20.0		90	70-130	0.8	25
Bromoform	**17.7**		µg/l		20.0		89	70-130	3	25
Bromomethane	**18.4**		µg/l		20.0		92	70-130	3	50
2-Butanone (MEK)	**19.0**		µg/l		20.0		95	70-130	11	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123368 - SW846 5030 Water MS										
LCS Dup (1123368-BSD1)					Prepared & Analyzed: 10-Nov-11					
n-Butylbenzene	**20.1**		µg/l		20.0		101	70-130	5	25
sec-Butylbenzene	**22.5**		µg/l		20.0		112	70-130	9	25
tert-Butylbenzene	**22.2**		µg/l		20.0		111	70-130	3	25
Carbon disulfide	**16.4**		µg/l		20.0		82	70-130	6	25
Carbon tetrachloride	**19.8**		µg/l		20.0		99	70-130	2	25
Chlorobenzene	**19.2**		µg/l		20.0		96	70-130	2	25
Chloroethane	**18.7**		µg/l		20.0		94	70-130	7	50
Chloroform	**17.3**		µg/l		20.0		86	70-130	2	25
Chloromethane	**18.0**		µg/l		20.0		90	70-130	0.8	25
2-Chlorotoluene	**21.3**		µg/l		20.0		107	70-130	10	25
4-Chlorotoluene	**21.0**		µg/l		20.0		105	70-130	7	25
1,2-Dibromo-3-chloropropane	**18.5**		µg/l		20.0		92	70-130	10	25
Dibromochloromethane	**19.2**		µg/l		20.0		96	70-130	2	50
1,2-Dibromoethane (EDB)	**19.8**		µg/l		20.0		99	70-130	3	25
Dibromomethane	**18.9**		µg/l		20.0		94	70-130	0.3	25
1,2-Dichlorobenzene	**18.5**		µg/l		20.0		92	70-130	4	25
1,3-Dichlorobenzene	**20.8**		µg/l		20.0		104	70-130	8	25
1,4-Dichlorobenzene	**18.4**		µg/l		20.0		92	70-130	3	25
Dichlorodifluoromethane (Freon12)	**23.5**		µg/l		20.0		118	70-130	6	50
1,1-Dichloroethane	**14.7**		µg/l		20.0		74	70-130	5	25
1,2-Dichloroethane	**17.5**		µg/l		20.0		88	70-130	5	25
1,1-Dichloroethene	**18.4**		µg/l		20.0		92	70-130	5	25
cis-1,2-Dichloroethene	**17.7**		µg/l		20.0		89	70-130	1	25
trans-1,2-Dichloroethene	**15.3**		µg/l		20.0		77	70-130	0.5	25
1,2-Dichloropropane	**18.6**		µg/l		20.0		93	70-130	1	25
1,3-Dichloropropane	**18.9**		µg/l		20.0		95	70-130	5	25
2,2-Dichloropropane	**15.9**		µg/l		20.0		80	70-130	1	25
1,1-Dichloropropene	**19.1**		µg/l		20.0		96	70-130	1	25
cis-1,3-Dichloropropene	**18.4**		µg/l		20.0		92	70-130	0.7	25
trans-1,3-Dichloropropene	**17.6**		µg/l		20.0		88	70-130	3	25
Ethylbenzene	**20.7**		µg/l		20.0		103	70-130	4	25
Hexachlorobutadiene	**19.7**		µg/l		20.0		99	70-130	8	50
2-Hexanone (MBK)	**20.5**		µg/l		20.0		102	70-130	9	25
Isopropylbenzene	**20.0**		µg/l		20.0		100	70-130	6	25
4-Isopropyltoluene	**19.9**		µg/l		20.0		99	70-130	3	25
Methyl tert-butyl ether	**17.1**		µg/l		20.0		86	70-130	10	25
4-Methyl-2-pentanone (MIBK)	**19.0**		µg/l		20.0		95	70-130	8	50
Methylene chloride	**17.2**		µg/l		20.0		86	70-130	5	25
Naphthalene	**20.9**		µg/l		20.0		104	70-130	8	25
n-Propylbenzene	**21.1**		µg/l		20.0		105	70-130	7	25
Styrene	**21.5**		µg/l		20.0		108	70-130	12	25
1,1,1,2-Tetrachloroethane	**19.7**		µg/l		20.0		99	70-130	3	25
1,1,2,2-Tetrachloroethane	**22.1**		µg/l		20.0		110	70-130	5	25
Tetrachloroethene	**18.9**		µg/l		20.0		95	70-130	3	25
Toluene	**18.2**		µg/l		20.0		91	70-130	2	25
1,2,3-Trichlorobenzene	**19.5**		µg/l		20.0		98	70-130	15	25
1,2,4-Trichlorobenzene	**17.5**		µg/l		20.0		88	70-130	10	25
1,3,5-Trichlorobenzene	**19.2**		µg/l		20.0		96	70-130	6	25
1,1,1-Trichloroethane	**18.6**		µg/l		20.0		93	70-130	0.5	25
1,1,2-Trichloroethane	**18.4**		µg/l		20.0		92	70-130	2	25
Trichloroethene	**17.7**		µg/l		20.0		89	70-130	7	25
Trichlorofluoromethane (Freon 11)	**22.1**		µg/l		20.0		110	70-130	3	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123368 - SW846 5030 Water MS										
LCS Dup (1123368-BSD1)					Prepared & Analyzed: 10-Nov-11					
1,2,3-Trichloropropane	**19.5**		µg/l		20.0		98	70-130	5	25
1,2,4-Trimethylbenzene	**22.0**		µg/l		20.0		110	70-130	8	25
1,3,5-Trimethylbenzene	**21.7**		µg/l		20.0		109	70-130	12	25
Vinyl chloride	**21.0**		µg/l		20.0		105	70-130	5	25
m,p-Xylene	**43.3**		µg/l		40.0		108	70-130	5	25
o-Xylene	**21.8**		µg/l		20.0		109	70-130	9	25
Tetrahydrofuran	**21.1**		µg/l		20.0		106	70-130	12	25
Ethyl ether	**19.0**		µg/l		20.0		95	70-130	0.7	50
Tert-amyl methyl ether	**19.1**		µg/l		20.0		96	70-130	2	25
Ethyl tert-butyl ether	**19.6**		µg/l		20.0		98	70-130	6	25
Di-isopropyl ether	**17.3**		µg/l		20.0		87	70-130	3	25
Tert-Butanol / butyl alcohol	**195**		µg/l		200		97	70-130	8	25
1,4-Dioxane	**213**		µg/l		200		106	70-130	0.3	25
trans-1,4-Dichloro-2-butene	**18.6**		µg/l		20.0		93	70-130	2	25
Ethanol	**426**		µg/l		400		107	70-130	18	30
Surrogate: 4-Bromofluorobenzene	*32.6*		µg/l		*30.0*		*109*	*70-130*		
Surrogate: Toluene-d8	*29.0*		µg/l		*30.0*		*97*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*28.2*		µg/l		*30.0*		*94*	*70-130*		
Surrogate: Dibromofluoromethane	*29.2*		µg/l		*30.0*		*97*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123226 - SW846 3510C										
Blank (1123226-BLK1)					Prepared & Analyzed: 09-Nov-11					
Acenaphthene	< 5.00		µg/l	5.00						
Acenaphthylene	< 5.00		µg/l	5.00						
Aniline	< 5.00		µg/l	5.00						
Anthracene	< 5.00		µg/l	5.00						
Azobenzene/Diphenyldiazine	< 5.00		µg/l	5.00						
Benzidine	< 5.00		µg/l	5.00						
Benzo (a) anthracene	< 5.00		µg/l	5.00						
Benzo (a) pyrene	< 5.00		µg/l	5.00						
Benzo (b) fluoranthene	< 5.00		µg/l	5.00						
Benzo (g,h,i) perylene	< 5.00		µg/l	5.00						
Benzo (k) fluoranthene	< 5.00		µg/l	5.00						
Benzoic acid	< 5.00		µg/l	5.00						
Benzyl alcohol	< 5.00		µg/l	5.00						
Bis(2-chloroethoxy)methane	< 5.00		µg/l	5.00						
Bis(2-chloroethyl)ether	< 5.00		µg/l	5.00						
Bis(2-chloroisopropyl)ether	< 5.00		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	< 5.00		µg/l	5.00						
4-Bromophenyl phenyl ether	< 5.00		µg/l	5.00						
Butyl benzyl phthalate	< 5.00		µg/l	5.00						
Carbazole	< 5.00		µg/l	5.00						
4-Chloro-3-methylphenol	< 5.00		µg/l	5.00						
4-Chloroaniline	< 5.00		µg/l	5.00						
2-Chloronaphthalene	< 5.00		µg/l	5.00						
2-Chlorophenol	< 5.00		µg/l	5.00						
4-Chlorophenyl phenyl ether	< 5.00		µg/l	5.00						
Chrysene	< 5.00		µg/l	5.00						
Dibenzo (a,h) anthracene	< 5.00		µg/l	5.00						
Dibenzofuran	< 5.00		µg/l	5.00						
1,2-Dichlorobenzene	< 5.00		µg/l	5.00						
1,3-Dichlorobenzene	< 5.00		µg/l	5.00						
1,4-Dichlorobenzene	< 5.00		µg/l	5.00						
3,3´-Dichlorobenzidine	< 5.00		µg/l	5.00						
2,4-Dichlorophenol	< 5.00		µg/l	5.00						
Diethyl phthalate	< 5.00		µg/l	5.00						
Dimethyl phthalate	< 5.00		µg/l	5.00						
2,4-Dimethylphenol	< 5.00		µg/l	5.00						
Di-n-butyl phthalate	< 5.00		µg/l	5.00						
4,6-Dinitro-2-methylphenol	< 5.00		µg/l	5.00						
2,4-Dinitrophenol	< 5.00		µg/l	5.00						
2,4-Dinitrotoluene	< 5.00		µg/l	5.00						
2,6-Dinitrotoluene	< 5.00		µg/l	5.00						
Di-n-octyl phthalate	< 5.00		µg/l	5.00						
Fluoranthene	< 5.00		µg/l	5.00						
Fluorene	< 5.00		µg/l	5.00						
Hexachlorobenzene	< 5.00		µg/l	5.00						
Hexachlorobutadiene	< 5.00		µg/l	5.00						
Hexachlorocyclopentadiene	< 5.00		µg/l	5.00						
Hexachloroethane	< 5.00		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	< 5.00		µg/l	5.00						
Isophorone	< 5.00		µg/l	5.00						
2-Methylnaphthalene	< 5.00		µg/l	5.00						
2-Methylphenol	< 5.00		µg/l	5.00						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123226 - SW846 3510C										
Blank (1123226-BLK1)					Prepared & Analyzed: 09-Nov-11					
3 & 4-Methylphenol	< 10.0		µg/l	10.0						
Naphthalene	< 5.00		µg/l	5.00						
2-Nitroaniline	< 5.00		µg/l	5.00						
3-Nitroaniline	< 5.00		µg/l	5.00						
4-Nitroaniline	< 20.0		µg/l	20.0						
Nitrobenzene	< 5.00		µg/l	5.00						
2-Nitrophenol	< 5.00		µg/l	5.00						
4-Nitrophenol	< 20.0		µg/l	20.0						
N-Nitrosodimethylamine	< 5.00		µg/l	5.00						
N-Nitrosodi-n-propylamine	< 5.00		µg/l	5.00						
N-Nitrosodiphenylamine	< 5.00		µg/l	5.00						
Pentachlorophenol	< 20.0		µg/l	20.0						
Phenanthrene	< 5.00		µg/l	5.00						
Phenol	< 5.00		µg/l	5.00						
Pyrene	< 5.00		µg/l	5.00						
Pyridine	< 5.00		µg/l	5.00						
1,2,4-Trichlorobenzene	< 5.00		µg/l	5.00						
1-Methylnaphthalene	< 5.00		µg/l	5.00						
2,4,5-Trichlorophenol	< 5.00		µg/l	5.00						
2,4,6-Trichlorophenol	< 5.00		µg/l	5.00						
Pentachloronitrobenzene	< 5.00		µg/l	5.00						
1,2,4,5-Tetrachlorobenzene	< 5.00		µg/l	5.00						
Surrogate: 2-Fluorobiphenyl	*20.2*		µg/l		*50.0*		*40*	*30-130*		
Surrogate: 2-Fluorophenol	*11.4*		µg/l		*50.0*		*23*	*15-110*		
Surrogate: Nitrobenzene-d5	*19.5*		µg/l		*50.0*		*39*	*30-130*		
Surrogate: Phenol-d5	*8.21*		µg/l		*50.0*		*16*	*15-110*		
Surrogate: Terphenyl-dl4	*22.2*		µg/l		*50.0*		*44*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*18.8*		µg/l		*50.0*		*38*	*15-110*		
Blank (1123226-BLK2)					Prepared: 09-Nov-11 Analyzed: 10-Nov-11					
Acenaphthene	< 0.050		µg/l	0.050						
Acenaphthylene	< 0.050		µg/l	0.050						
1-Methylnaphthalene	< 0.050		µg/l	0.050						
Anthracene	< 0.050		µg/l	0.050						
Benzo (a) anthracene	< 0.050		µg/l	0.050						
Benzo (a) pyrene	< 0.050		µg/l	0.050						
Benzo (b) fluoranthene	< 0.050		µg/l	0.050						
Benzo (g,h,i) perylene	< 0.050		µg/l	0.050						
Benzo (k) fluoranthene	< 0.050		µg/l	0.050						
Chrysene	< 0.050		µg/l	0.050						
Dibenzo (a,h) anthracene	< 0.050		µg/l	0.050						
Fluoranthene	< 0.050		µg/l	0.050						
Fluorene	< 0.050		µg/l	0.050						
Indeno (1,2,3-cd) pyrene	< 0.050		µg/l	0.050						
2-Methylnaphthalene	< 0.050		µg/l	0.050						
Naphthalene	< 0.050		µg/l	0.050						
Phenanthrene	< 0.050		µg/l	0.050						
Pyrene	< 0.050		µg/l	0.050						
Surrogate: 2-Fluorobiphenyl	*36.8*		µg/l		*50.0*		*74*	*30-130*		
Surrogate: Terphenyl-dl4	*39.2*		µg/l		*50.0*		*78*	*30-130*		
LCS (1123226-BS1)					Prepared & Analyzed: 09-Nov-11					
Acenaphthene	**26.7**		µg/l	5.00	50.0		53	40-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123226 - SW846 3510C										
LCS (1123226-BS1)					Prepared & Analyzed: 09-Nov-11					
Acenaphthene	**26.7**		µg/l	0.050	50.0		53	40-140		
Acenaphthylene	**27.3**		µg/l	5.00	50.0		55	40-130		
Acenaphthylene	**27.3**		µg/l	0.050	50.0		55	40-140		
1-Methylnaphthalene	**25.5**		µg/l	0.050	50.0		51	40-140		
Aniline	**34.6**		µg/l	5.00	50.0		69	40-130		
Anthracene	**30.6**		µg/l	5.00	50.0		61	40-130		
Anthracene	**30.6**		µg/l	0.050	50.0		61	40-140		
Azobenzene/Diphenyldiazine	**35.4**		µg/l	5.00	50.0		71	40-130		
Benzidine	**32.1**		µg/l	5.00	50.0		64	40-140		
Benzo (a) anthracene	**31.0**		µg/l	5.00	50.0		62	40-130		
Benzo (a) anthracene	**31.0**		µg/l	0.050	50.0		62	40-140		
Benzo (a) pyrene	**28.3**		µg/l	5.00	50.0		57	40-130		
Benzo (b) fluoranthene	**25.4**		µg/l	5.00	50.0		51	40-130		
Benzo (a) pyrene	**28.3**		µg/l	0.050	50.0		57	40-140		
Benzo (g,h,i) perylene	**24.7**		µg/l	5.00	50.0		49	40-130		
Benzo (b) fluoranthene	**25.4**		µg/l	0.050	50.0		51	40-140		
Benzo (k) fluoranthene	**32.6**		µg/l	5.00	50.0		65	40-130		
Benzo (g,h,i) perylene	**24.7**		µg/l	0.050	50.0		49	40-140		
Benzo (k) fluoranthene	**32.6**		µg/l	0.050	50.0		65	40-140		
Benzoic acid	**11.7**	QC2	µg/l	5.00	50.0		23	40-130		
Benzyl alcohol	**18.8**	QM9	µg/l	5.00	50.0		38	40-130		
Bis(2-chloroethoxy)methane	**20.8**		µg/l	5.00	50.0		42	40-130		
Bis(2-chloroethyl)ether	**20.7**		µg/l	5.00	50.0		41	40-130		
Bis(2-chloroisopropyl)ether	**26.2**		µg/l	5.00	50.0		52	40-130		
Bis(2-ethylhexyl)phthalate	**30.9**		µg/l	5.00	50.0		62	40-130		
4-Bromophenyl phenyl ether	**25.3**		µg/l	5.00	50.0		51	40-130		
Butyl benzyl phthalate	**28.7**		µg/l	5.00	50.0		57	40-130		
Carbazole	**72.2**	QC2	µg/l	5.00	50.0		144	40-130		
4-Chloro-3-methylphenol	**25.9**		µg/l	5.00	50.0		52	40-130		
4-Chloroaniline	**28.9**		µg/l	5.00	50.0		58	40-130		
2-Chloronaphthalene	**23.9**		µg/l	5.00	50.0		48	40-130		
2-Chlorophenol	**26.0**		µg/l	5.00	50.0		52	40-130		
4-Chlorophenyl phenyl ether	**26.5**		µg/l	5.00	50.0		53	40-130		
Chrysene	**27.6**		µg/l	5.00	50.0		55	40-130		
Chrysene	**27.6**		µg/l	0.050	50.0		55	40-140		
Dibenzo (a,h) anthracene	**26.4**		µg/l	5.00	50.0		53	40-130		
Dibenzo (a,h) anthracene	**26.4**		µg/l	0.050	50.0		53	40-140		
Dibenzofuran	**25.8**		µg/l	5.00	50.0		52	40-130		
1,2-Dichlorobenzene	**24.3**		µg/l	5.00	50.0		49	40-130		
1,3-Dichlorobenzene	**22.4**		µg/l	5.00	50.0		45	40-130		
1,4-Dichlorobenzene	**24.1**		µg/l	5.00	50.0		48	40-130		
3,3´-Dichlorobenzidine	**41.5**		µg/l	5.00	50.0		83	40-130		
2,4-Dichlorophenol	**24.1**		µg/l	5.00	50.0		48	40-130		
Diethyl phthalate	**28.4**		µg/l	5.00	50.0		57	40-130		
Dimethyl phthalate	**26.5**		µg/l	5.00	50.0		53	40-130		
2,4-Dimethylphenol	**22.8**		µg/l	5.00	50.0		46	40-130		
Di-n-butyl phthalate	**31.3**		µg/l	5.00	50.0		63	40-130		
4,6-Dinitro-2-methylphenol	**31.0**		µg/l	5.00	50.0		62	40-130		
2,4-Dinitrophenol	**22.4**		µg/l	5.00	50.0		45	40-130		
2,4-Dinitrotoluene	**31.0**		µg/l	5.00	50.0		62	40-130		
2,6-Dinitrotoluene	**25.8**		µg/l	5.00	50.0		52	40-130		
Di-n-octyl phthalate	**29.7**		µg/l	5.00	50.0		59	40-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123226 - SW846 3510C										
LCS (1123226-BS1)						Prepared & Analyzed: 09-Nov-11				
Fluoranthene	**28.6**		µg/l	5.00	50.0		57	40-130		
Fluoranthene	**28.6**		µg/l	0.050	50.0		57	40-140		
Fluorene	**28.6**		µg/l	5.00	50.0		57	40-130		
Fluorene	**28.6**		µg/l	0.050	50.0		57	40-140		
Hexachlorobenzene	**27.7**		µg/l	5.00	50.0		55	40-130		
Hexachlorobutadiene	**20.9**		µg/l	5.00	50.0		42	40-130		
Hexachlorocyclopentadiene	**17.7**	QC2	µg/l	5.00	50.0		35	40-130		
Hexachloroethane	**24.2**		µg/l	5.00	50.0		48	40-130		
Indeno (1,2,3-cd) pyrene	**26.0**		µg/l	5.00	50.0		52	40-130		
Isophorone	**22.7**		µg/l	5.00	50.0		45	40-130		
Indeno (1,2,3-cd) pyrene	**26.0**		µg/l	0.050	50.0		52	40-140		
2-Methylnaphthalene	**25.2**		µg/l	5.00	50.0		50	40-130		
2-Methylphenol	**25.1**		µg/l	5.00	50.0		50	40-130		
2-Methylnaphthalene	**25.2**		µg/l	0.050	50.0		50	40-140		
3 & 4-Methylphenol	**22.7**		µg/l	10.0	50.0		45	40-130		
Naphthalene	**26.2**		µg/l	5.00	50.0		52	40-130		
2-Nitroaniline	**27.2**		µg/l	5.00	50.0		54	40-130		
3-Nitroaniline	**56.4**		µg/l	5.00	50.0		113	40-130		
Naphthalene	**26.2**		µg/l	0.050	50.0		52	40-140		
4-Nitroaniline	**37.8**		µg/l	20.0	50.0		76	40-130		
Nitrobenzene	**26.1**		µg/l	5.00	50.0		52	40-130		
2-Nitrophenol	**24.0**		µg/l	5.00	50.0		48	40-130		
4-Nitrophenol	**12.3**	QC2	µg/l	20.0	50.0		25	40-130		
N-Nitrosodimethylamine	**9.81**	QC2	µg/l	5.00	50.0		20	40-130		
N-Nitrosodi-n-propylamine	**27.3**		µg/l	5.00	50.0		55	40-130		
N-Nitrosodiphenylamine	**33.9**		µg/l	5.00	50.0		68	40-130		
Pentachlorophenol	**19.7**	QM9	µg/l	20.0	50.0		39	40-130		
Phenanthrene	**28.0**		µg/l	5.00	50.0		56	40-130		
Phenol	**14.9**	QC2	µg/l	5.00	50.0		30	40-130		
Pyrene	**30.5**		µg/l	5.00	50.0		61	40-130		
Pyridine	**6.37**	QC2	µg/l	5.00	50.0		13	40-140		
Phenanthrene	**28.0**		µg/l	0.050	50.0		56	40-140		
1,2,4-Trichlorobenzene	**21.8**		µg/l	5.00	50.0		44	40-130		
Pyrene	**30.5**		µg/l	0.050	50.0		61	40-140		
1-Methylnaphthalene	**25.5**		µg/l	5.00	50.0		51	40-140		
2,4,5-Trichlorophenol	**25.3**		µg/l	5.00	50.0		51	40-130		
2,4,6-Trichlorophenol	**26.3**		µg/l	5.00	50.0		53	40-130		
Pentachloronitrobenzene	**42.9**		µg/l	5.00	50.0		86	40-140		
1,2,4,5-Tetrachlorobenzene	**27.7**		µg/l	5.00	50.0		55	40-140		
Surrogate: 2-Fluorobiphenyl	*27.4*		µg/l		*50.0*		*55*	*30-130*		
Surrogate: Terphenyl-dl4	*32.2*		µg/l		*50.0*		*64*	*30-130*		
Surrogate: 2-Fluorobiphenyl	*27.4*		µg/l		*50.0*		*55*	*30-130*		
Surrogate: 2-Fluorophenol	*17.0*		µg/l		*50.0*		*34*	*15-110*		
Surrogate: Nitrobenzene-d5	*28.4*		µg/l		*50.0*		*57*	*30-130*		
Surrogate: Phenol-d5	*12.0*		µg/l		*50.0*		*24*	*15-110*		
Surrogate: Terphenyl-dl4	*32.2*		µg/l		*50.0*		*64*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*30.5*		µg/l		*50.0*		*61*	*15-110*		
LCS Dup (1123226-BSD1)						Prepared & Analyzed: 09-Nov-11				
Acenaphthene	**29.7**		µg/l	5.00	50.0		59	40-130	11	20
Acenaphthene	**29.7**		µg/l	0.050	50.0		59	40-140	11	20
Acenaphthylene	**29.9**		µg/l	5.00	50.0		60	40-130	9	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123226 - SW846 3510C										
LCS Dup (1123226-BSD1)					Prepared & Analyzed: 09-Nov-11					
Acenaphthylene	**29.9**		µg/l	0.050	50.0		60	40-140	9	20
Aniline	**39.7**		µg/l	5.00	50.0		79	40-130	14	20
1-Methylnaphthalene	**28.3**		µg/l	0.050	50.0		57	40-140	10	20
Anthracene	**33.3**		µg/l	5.00	50.0		67	40-130	8	20
Anthracene	**33.3**		µg/l	0.050	50.0		67	40-140	8	20
Azobenzene/Diphenyldiazine	**37.6**		µg/l	5.00	50.0		75	40-130	6	20
Benzidine	**27.9**		µg/l	5.00	50.0		56	40-140	14	20
Benzo (a) anthracene	**33.6**		µg/l	5.00	50.0		67	40-130	8	20
Benzo (a) pyrene	**30.2**		µg/l	5.00	50.0		60	40-130	7	20
Benzo (a) anthracene	**33.6**		µg/l	0.050	50.0		67	40-140	8	20
Benzo (b) fluoranthene	**28.8**		µg/l	5.00	50.0		58	40-130	12	20
Benzo (a) pyrene	**30.2**		µg/l	0.050	50.0		60	40-140	7	20
Benzo (b) fluoranthene	**28.8**		µg/l	0.050	50.0		58	40-140	12	20
Benzo (g,h,i) perylene	**29.5**		µg/l	5.00	50.0		59	40-130	18	20
Benzo (k) fluoranthene	**33.0**		µg/l	5.00	50.0		66	40-130	1	20
Benzo (g,h,i) perylene	**29.5**		µg/l	0.050	50.0		59	40-140	18	20
Benzoic acid	**13.4**	QC2	µg/l	5.00	50.0		27	40-130	14	20
Benzo (k) fluoranthene	**33.0**		µg/l	0.050	50.0		66	40-140	1	20
Benzyl alcohol	**21.1**		µg/l	5.00	50.0		42	40-130	11	20
Bis(2-chloroethoxy)methane	**21.1**		µg/l	5.00	50.0		42	40-130	1	20
Bis(2-chloroethyl)ether	**21.9**		µg/l	5.00	50.0		44	40-130	5	20
Bis(2-chloroisopropyl)ether	**28.8**		µg/l	5.00	50.0		58	40-130	10	20
Bis(2-ethylhexyl)phthalate	**31.4**		µg/l	5.00	50.0		63	40-130	1	20
4-Bromophenyl phenyl ether	**27.7**		µg/l	5.00	50.0		55	40-130	9	20
Butyl benzyl phthalate	**30.3**		µg/l	5.00	50.0		61	40-130	5	20
Carbazole	**77.2**	QC2	µg/l	5.00	50.0		154	40-130	7	20
4-Chloro-3-methylphenol	**26.1**		µg/l	5.00	50.0		52	40-130	0.7	20
4-Chloroaniline	**31.2**		µg/l	5.00	50.0		62	40-130	8	20
2-Chloronaphthalene	**26.8**		µg/l	5.00	50.0		54	40-130	11	20
2-Chlorophenol	**29.0**		µg/l	5.00	50.0		58	40-130	11	20
4-Chlorophenyl phenyl ether	**30.0**		µg/l	5.00	50.0		60	40-130	13	20
Chrysene	**29.1**		µg/l	5.00	50.0		58	40-130	5	20
Chrysene	**29.1**		µg/l	0.050	50.0		58	40-140	5	20
Dibenzo (a,h) anthracene	**30.4**		µg/l	5.00	50.0		61	40-130	14	20
Dibenzofuran	**28.4**		µg/l	5.00	50.0		57	40-130	9	20
Dibenzo (a,h) anthracene	**30.4**		µg/l	0.050	50.0		61	40-140	14	20
1,2-Dichlorobenzene	**27.3**		µg/l	5.00	50.0		55	40-130	12	20
1,3-Dichlorobenzene	**25.1**		µg/l	5.00	50.0		50	40-130	11	20
1,4-Dichlorobenzene	**26.6**		µg/l	5.00	50.0		53	40-130	10	20
3,3´-Dichlorobenzidine	**46.0**		µg/l	5.00	50.0		92	40-130	10	20
2,4-Dichlorophenol	**24.4**		µg/l	5.00	50.0		49	40-130	1	20
Diethyl phthalate	**29.9**		µg/l	5.00	50.0		60	40-130	5	20
Dimethyl phthalate	**28.0**		µg/l	5.00	50.0		56	40-130	6	20
2,4-Dimethylphenol	**23.2**		µg/l	5.00	50.0		46	40-130	2	20
Di-n-butyl phthalate	**32.8**		µg/l	5.00	50.0		66	40-130	5	20
4,6-Dinitro-2-methylphenol	**35.8**		µg/l	5.00	50.0		72	40-130	14	20
2,4-Dinitrophenol	**27.1**		µg/l	5.00	50.0		54	40-130	19	20
2,4-Dinitrotoluene	**32.6**		µg/l	5.00	50.0		65	40-130	5	20
2,6-Dinitrotoluene	**27.5**		µg/l	5.00	50.0		55	40-130	6	20
Di-n-octyl phthalate	**31.8**		µg/l	5.00	50.0		64	40-130	7	20
Fluoranthene	**30.8**		µg/l	5.00	50.0		62	40-130	7	20
Fluoranthene	**30.8**		µg/l	0.050	50.0		62	40-140	7	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123226 - SW846 3510C										
LCS Dup (1123226-BSD1)						Prepared & Analyzed: 09-Nov-11				
Fluorene	**31.9**		µg/l	5.00	50.0		64	40-130	11	20
Fluorene	**31.9**		µg/l	0.050	50.0		64	40-140	11	20
Hexachlorobenzene	**30.5**		µg/l	5.00	50.0		61	40-130	10	20
Hexachlorobutadiene	**22.3**		µg/l	5.00	50.0		45	40-130	7	20
Hexachlorocyclopentadiene	**23.4**	QC2	µg/l	5.00	50.0		47	40-130	28	20
Hexachloroethane	**28.4**		µg/l	5.00	50.0		57	40-130	16	20
Indeno (1,2,3-cd) pyrene	**29.1**		µg/l	5.00	50.0		58	40-130	11	20
Isophorone	**22.6**		µg/l	5.00	50.0		45	40-130	0.5	20
Indeno (1,2,3-cd) pyrene	**29.1**		µg/l	0.050	50.0		58	40-140	11	20
2-Methylnaphthalene	**25.9**		µg/l	5.00	50.0		52	40-130	3	20
2-Methylphenol	**26.9**		µg/l	5.00	50.0		54	40-130	7	20
2-Methylnaphthalene	**25.9**		µg/l	0.050	50.0		52	40-140	3	20
3 & 4-Methylphenol	**24.7**		µg/l	10.0	50.0		49	40-130	9	20
Naphthalene	**27.1**		µg/l	5.00	50.0		54	40-130	3	20
2-Nitroaniline	**29.3**		µg/l	5.00	50.0		59	40-130	7	20
Naphthalene	**27.1**		µg/l	0.050	50.0		54	40-140	3	20
3-Nitroaniline	**58.6**		µg/l	5.00	50.0		117	40-130	4	20
4-Nitroaniline	**39.1**		µg/l	20.0	50.0		78	40-130	3	20
Nitrobenzene	**26.4**		µg/l	5.00	50.0		53	40-130	1	20
2-Nitrophenol	**25.3**		µg/l	5.00	50.0		51	40-130	6	20
4-Nitrophenol	**13.6**	QC2	µg/l	20.0	50.0		27	40-130	10	20
N-Nitrosodimethylamine	**8.30**	QC2	µg/l	5.00	50.0		17	40-130	17	20
N-Nitrosodi-n-propylamine	**29.7**		µg/l	5.00	50.0		59	40-130	8	20
N-Nitrosodiphenylamine	**37.0**		µg/l	5.00	50.0		74	40-130	9	20
Pentachlorophenol	**23.7**		µg/l	20.0	50.0		47	40-130	18	20
Phenanthrene	**29.6**		µg/l	5.00	50.0		59	40-130	6	20
Phenol	**16.1**	QC2	µg/l	5.00	50.0		32	40-130	8	20
Pyrene	**32.4**		µg/l	5.00	50.0		65	40-130	6	20
Pyridine	**5.38**	QC2	µg/l	5.00	50.0		11	40-140	17	20
Phenanthrene	**29.6**		µg/l	0.050	50.0		59	40-140	6	20
1,2,4-Trichlorobenzene	**22.4**		µg/l	5.00	50.0		45	40-130	3	20
1-Methylnaphthalene	**28.3**		µg/l	5.00	50.0		57	40-140	10	20
Pyrene	**32.4**		µg/l	0.050	50.0		65	40-140	6	20
2,4,5-Trichlorophenol	**28.7**		µg/l	5.00	50.0		57	40-130	12	20
2,4,6-Trichlorophenol	**29.8**		µg/l	5.00	50.0		60	40-130	12	20
Pentachloronitrobenzene	**46.1**		µg/l	5.00	50.0		92	40-140	7	20
1,2,4,5-Tetrachlorobenzene	**31.1**		µg/l	5.00	50.0		62	40-140	11	20
Surrogate: 2-Fluorobiphenyl	*30.1*		µg/l		*50.0*		*60*	*30-130*		
Surrogate: Terphenyl-dl4	*34.5*		µg/l		*50.0*		*69*	*30-130*		
Surrogate: 2-Fluorobiphenyl	*30.1*		µg/l		*50.0*		*60*	*30-130*		
Surrogate: 2-Fluorophenol	*19.2*		µg/l		*50.0*		*38*	*15-110*		
Surrogate: Nitrobenzene-d5	*28.9*		µg/l		*50.0*		*58*	*30-130*		
Surrogate: Phenol-d5	*12.6*		µg/l		*50.0*		*25*	*15-110*		
Surrogate: Terphenyl-dl4	*34.5*		µg/l		*50.0*		*69*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*32.4*		µg/l		*50.0*		*65*	*15-110*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123220 - SW846 3510C										
Blank (1123220-BLK1)					Prepared & Analyzed: 09-Nov-11					
Aroclor-1016	< 0.200		µg/l	0.200						
Aroclor-1016 [2C]	< 0.200		µg/l	0.200						
Aroclor-1221	< 0.200		µg/l	0.200						
Aroclor-1221 [2C]	< 0.200		µg/l	0.200						
Aroclor-1232	< 0.200		µg/l	0.200						
Aroclor-1232 [2C]	< 0.200		µg/l	0.200						
Aroclor-1242	< 0.200		µg/l	0.200						
Aroclor-1242 [2C]	< 0.200		µg/l	0.200						
Aroclor-1248	< 0.200		µg/l	0.200						
Aroclor-1248 [2C]	< 0.200		µg/l	0.200						
Aroclor-1254	< 0.200		µg/l	0.200						
Aroclor-1254 [2C]	< 0.200		µg/l	0.200						
Aroclor-1260	< 0.200		µg/l	0.200						
Aroclor-1260 [2C]	< 0.200		µg/l	0.200						
Aroclor-1262	< 0.200		µg/l	0.200						
Aroclor-1262 [2C]	< 0.200		µg/l	0.200						
Aroclor-1268	< 0.200		µg/l	0.200						
Aroclor-1268 [2C]	< 0.200		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.100*		µg/l		*0.200*		*50*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.130*		µg/l		*0.200*		*65*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.180*		µg/l		*0.200*		*90*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.220*		µg/l		*0.200*		*110*	*30-150*		
LCS (1123220-BS1)					Prepared & Analyzed: 09-Nov-11					
Aroclor-1016	**2.63**		µg/l	0.200	2.50		105	50-114		
Aroclor-1016 [2C]	**2.66**		µg/l	0.200	2.50		106	50-114		
Aroclor-1260	**2.35**		µg/l	0.200	2.50		94	40-127		
Aroclor-1260 [2C]	**2.58**		µg/l	0.200	2.50		103	40-127		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.120*		µg/l		*0.200*		*60*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.140*		µg/l		*0.200*		*70*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.200*		µg/l		*0.200*		*100*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.270*		µg/l		*0.200*		*135*	*30-150*		
LCS Dup (1123220-BSD1)					Prepared & Analyzed: 09-Nov-11					
Aroclor-1016	**2.68**		µg/l	0.200	2.50		107	50-114	2	20
Aroclor-1016 [2C]	**2.68**		µg/l	0.200	2.50		107	50-114	0.7	20
Aroclor-1260	**2.50**		µg/l	0.200	2.50		100	40-127	6	20
Aroclor-1260 [2C]	**2.67**		µg/l	0.200	2.50		107	40-127	3	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.120*		µg/l		*0.200*		*60*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.140*		µg/l		*0.200*		*70*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.190*		µg/l		*0.200*		*95*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.250*		µg/l		*0.200*		*125*	*30-150*		

Extractable Petroleum Hydrocarbons - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123431 - SW846 3510C										
Blank (1123431-BLK1)						Prepared: 11-Nov-11 Analyzed: 14-Nov-11				
Non-polar material (SGT-HEM)	< 1.0		mg/l	1.0						
LCS (1123431-BS1)						Prepared: 11-Nov-11 Analyzed: 14-Nov-11				
Non-polar material (SGT-HEM)	**22.1**		mg/l		25.9		85	83-101		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123161 - SW846 3005A										
Blank (1123161-BLK1)					Prepared & Analyzed: 10-Nov-11					
Selenium	< 0.0150		mg/l	0.0150						
Antimony	< 0.0060		mg/l	0.0060						
Lead	< 0.0075		mg/l	0.0075						
Nickel	< 0.0050		mg/l	0.0050						
Iron	< 0.0150		mg/l	0.0150						
Zinc	< 0.0050		mg/l	0.0050						
Silver	< 0.0050		mg/l	0.0050						
Copper	< 0.0050		mg/l	0.0050						
Chromium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Arsenic	< 0.0040		mg/l	0.0040						
LCS (1123161-BS1)					Prepared & Analyzed: 10-Nov-11					
Iron	**1.30**		mg/l	0.0150	1.25		104	85-115		
Zinc	**1.26**		mg/l	0.0050	1.25		100	85-115		
Antimony	**1.22**		mg/l	0.0060	1.25		98	85-115		
Lead	**1.25**		mg/l	0.0075	1.25		100	85-115		
Nickel	**1.25**		mg/l	0.0050	1.25		100	85-115		
Selenium	**1.24**		mg/l	0.0150	1.25		99	85-115		
Copper	**1.28**		mg/l	0.0050	1.25		102	85-115		
Chromium	**1.26**		mg/l	0.0050	1.25		101	85-115		
Cadmium	**1.24**		mg/l	0.0025	1.25		99	85-115		
Silver	**1.16**		mg/l	0.0050	1.25		93	85-115		
Arsenic	**1.23**		mg/l	0.0040	1.25		98	85-115		
LCS Dup (1123161-BSD1)					Prepared & Analyzed: 10-Nov-11					
Selenium	**1.31**		mg/l	0.0150	1.25		105	85-115	6	20
Antimony	**1.29**		mg/l	0.0060	1.25		103	85-115	5	20
Lead	**1.31**		mg/l	0.0075	1.25		105	85-115	5	20
Nickel	**1.31**		mg/l	0.0050	1.25		105	85-115	5	20
Iron	**1.40**		mg/l	0.0150	1.25		112	85-115	7	20
Zinc	**1.31**		mg/l	0.0050	1.25		105	85-115	4	20
Copper	**1.34**		mg/l	0.0050	1.25		107	85-115	5	20
Chromium	**1.34**		mg/l	0.0050	1.25		107	85-115	6	20
Cadmium	**1.30**		mg/l	0.0025	1.25		104	85-115	4	20
Silver	**1.25**		mg/l	0.0050	1.25		100	85-115	8	20
Arsenic	**1.30**		mg/l	0.0040	1.25		104	85-115	6	20
Duplicate (1123161-DUP1)			**Source: SB38837-03**			Prepared & Analyzed: 10-Nov-11				
Zinc	**0.0091**	QR6	mg/l	0.0050		0.0038			82	20
Selenium	**0.0085**	J	mg/l	0.0150		0.0078			8	20
Antimony	< 0.0060		mg/l	0.0060		BRL				20
Lead	**0.0046**	J	mg/l	0.0075		0.0052			12	20
Nickel	< 0.0050		mg/l	0.0050		BRL				20
Iron	**2.88**		mg/l	0.0150		2.83			2	20
Silver	< 0.0050		mg/l	0.0050		BRL				20
Arsenic	**0.0038**	J	mg/l	0.0040		0.0042			13	20
Cadmium	**0.0002**	J	mg/l	0.0025		BRL				20
Chromium	**0.0050**		mg/l	0.0050		0.0046			6	20
Copper	< 0.0050		mg/l	0.0050		BRL				20
Matrix Spike (1123161-MS1)			**Source: SB38837-03**			Prepared & Analyzed: 10-Nov-11				
Zinc	**1.23**		mg/l	0.0050	1.25	0.0038	98	75-125		
Iron	**4.23**		mg/l	0.0150	1.25	2.83	112	75-125		
Nickel	**1.20**		mg/l	0.0050	1.25	BRL	96	75-125		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123161 - SW846 3005A										
Matrix Spike (1123161-MS1)			**Source: SB38837-03**		Prepared & Analyzed: 10-Nov-11					
Lead	**1.21**		mg/l	0.0075	1.25	0.0052	96	75-125		
Selenium	**1.33**		mg/l	0.0150	1.25	0.0078	105	75-125		
Antimony	**1.30**		mg/l	0.0060	1.25	BRL	104	75-125		
Cadmium	**1.23**		mg/l	0.0025	1.25	BRL	98	75-125		
Arsenic	**1.33**		mg/l	0.0040	1.25	0.0042	106	75-125		
Silver	**1.27**		mg/l	0.0050	1.25	BRL	101	75-125		
Chromium	**1.29**		mg/l	0.0050	1.25	0.0046	103	75-125		
Copper	**1.30**		mg/l	0.0050	1.25	BRL	104	75-125		
Matrix Spike Dup (1123161-MSD1)			**Source: SB38837-03**		Prepared & Analyzed: 10-Nov-11					
Selenium	**1.31**		mg/l	0.0150	1.25	0.0078	104	75-125	1	20
Zinc	**1.22**		mg/l	0.0050	1.25	0.0038	97	75-125	2	20
Antimony	**1.29**		mg/l	0.0060	1.25	BRL	103	75-125	0.7	20
Lead	**1.19**		mg/l	0.0075	1.25	0.0052	95	75-125	1	20
Nickel	**1.19**		mg/l	0.0050	1.25	BRL	95	75-125	1	20
Iron	**4.14**		mg/l	0.0150	1.25	2.83	105	75-125	2	20
Chromium	**1.26**		mg/l	0.0050	1.25	0.0046	101	75-125	2	20
Cadmium	**1.22**		mg/l	0.0025	1.25	BRL	98	75-125	0.9	20
Arsenic	**1.32**		mg/l	0.0040	1.25	0.0042	105	75-125	1	20
Silver	**1.23**		mg/l	0.0050	1.25	BRL	98	75-125	3	20
Copper	**1.30**		mg/l	0.0050	1.25	BRL	104	75-125	0.7	20
Post Spike (1123161-PS1)			**Source: SB38837-03**		Prepared & Analyzed: 10-Nov-11					
Iron	**4.15**		mg/l	0.0150	1.25	2.83	105	80-120		
Zinc	**1.23**		mg/l	0.0050	1.25	0.0038	98	80-120		
Selenium	**1.32**		mg/l	0.0150	1.25	0.0078	105	80-120		
Antimony	**1.29**		mg/l	0.0060	1.25	BRL	103	80-120		
Lead	**1.20**		mg/l	0.0075	1.25	0.0052	96	80-120		
Nickel	**1.20**		mg/l	0.0050	1.25	BRL	96	80-120		
Silver	**1.28**		mg/l	0.0050	1.25	BRL	102	80-120		
Chromium	**1.29**		mg/l	0.0050	1.25	0.0046	103	80-120		
Cadmium	**1.22**		mg/l	0.0025	1.25	BRL	98	80-120		
Arsenic	**1.33**		mg/l	0.0040	1.25	0.0042	106	80-120		
Copper	**1.29**		mg/l	0.0050	1.25	BRL	103	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123361 - EPA200/SW7000 Series										
Blank (1123361-BLK1)						Prepared: 10-Nov-11	Analyzed: 11-Nov-11			
Mercury	< 0.00020		mg/l	0.00020						
LCS (1123361-BS1)						Prepared: 10-Nov-11	Analyzed: 11-Nov-11			
Mercury	**0.00503**		mg/l	0.00020	0.00500		101	85-115		
Duplicate (1123361-DUP1)			**Source: SB38837-03**			Prepared: 10-Nov-11	Analyzed: 11-Nov-11			
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1123361-MS1)			**Source: SB38837-03**			Prepared: 10-Nov-11	Analyzed: 11-Nov-11			
Mercury	**0.00549**		mg/l	0.00020	0.00500	BRL	110	80-120		
Matrix Spike Dup (1123361-MSD1)			**Source: SB38837-03**			Prepared: 10-Nov-11	Analyzed: 11-Nov-11			
Mercury	**0.00549**		mg/l	0.00020	0.00500	BRL	110	80-120	0	20
Post Spike (1123361-PS1)			**Source: SB38837-03**			Prepared: 10-Nov-11	Analyzed: 11-Nov-11			
Mercury	**0.00524**		mg/l	0.00020	0.00500	BRL	105	85-115		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123495 - SW846 3005A										
Blank (1123495-BLK1)					Prepared & Analyzed: 11-Nov-11					
Selenium	< 0.0150		mg/l	0.0150						
Zinc	< 0.0050		mg/l	0.0050						
Antimony	< 0.0060		mg/l	0.0060						
Lead	< 0.0075		mg/l	0.0075						
Nickel	< 0.0050		mg/l	0.0050						
Iron	< 0.0150		mg/l	0.0150						
Copper	< 0.0050		mg/l	0.0050						
Chromium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Arsenic	< 0.0040		mg/l	0.0040						
Silver	< 0.0050		mg/l	0.0050						
LCS (1123495-BS1)					Prepared & Analyzed: 11-Nov-11					
Iron	**1.26**		mg/l	0.0150	1.25		101	85-115		
Zinc	**1.23**		mg/l	0.0050	1.25		98	85-115		
Selenium	**1.23**		mg/l	0.0150	1.25		99	85-115		
Antimony	**1.21**		mg/l	0.0060	1.25		97	85-115		
Nickel	**1.21**		mg/l	0.0050	1.25		97	85-115		
Lead	**1.21**		mg/l	0.0075	1.25		97	85-115		
Silver	**1.23**		mg/l	0.0050	1.25		99	85-115		
Cadmium	**1.24**		mg/l	0.0025	1.25		99	85-115		
Chromium	**1.20**		mg/l	0.0050	1.25		96	85-115		
Copper	**1.25**		mg/l	0.0050	1.25		100	85-115		
Arsenic	**1.21**		mg/l	0.0040	1.25		97	85-115		
LCS Dup (1123495-BSD1)					Prepared & Analyzed: 11-Nov-11					
Zinc	**1.23**		mg/l	0.0050	1.25		98	85-115	0.3	20
Iron	**1.27**		mg/l	0.0150	1.25		101	85-115	0.4	20
Nickel	**1.21**		mg/l	0.0050	1.25		96	85-115	0.6	20
Lead	**1.21**		mg/l	0.0075	1.25		97	85-115	0.2	20
Antimony	**1.20**		mg/l	0.0060	1.25		96	85-115	0.5	20
Selenium	**1.24**		mg/l	0.0150	1.25		99	85-115	0.5	20
Cadmium	**1.23**		mg/l	0.0025	1.25		98	85-115	0.7	20
Chromium	**1.20**		mg/l	0.0050	1.25		96	85-115	0.5	20
Copper	**1.24**		mg/l	0.0050	1.25		99	85-115	0.8	20
Arsenic	**1.21**		mg/l	0.0040	1.25		97	85-115	0.5	20
Silver	**1.26**		mg/l	0.0050	1.25		100	85-115	2	20
Duplicate (1123495-DUP1)			**Source: SB38837-03**		Prepared & Analyzed: 11-Nov-11					
Selenium	**0.0078**	J	mg/l	0.0150		0.0091			15	20
Antimony	< 0.0060		mg/l	0.0060		BRL				20
Lead	< 0.0075		mg/l	0.0075		BRL				20
Nickel	< 0.0050		mg/l	0.0050		BRL				20
Iron	**2.55**		mg/l	0.0150		2.58			1	20
Zinc	**0.0072**	QR6	mg/l	0.0050		0.0044			48	20
Chromium	**0.0044**	J	mg/l	0.0050		0.0046			2	20
Copper	< 0.0050		mg/l	0.0050		BRL				20
Cadmium	< 0.0025		mg/l	0.0025		BRL				20
Silver	< 0.0050		mg/l	0.0050		BRL				20
Arsenic	**0.0046**		mg/l	0.0040		0.0050			9	20
Matrix Spike (1123495-MS1)			**Source: SB38837-03**		Prepared & Analyzed: 11-Nov-11					
Selenium	**1.28**		mg/l	0.0150	1.25	0.0091	102	75-125		
Nickel	**1.13**		mg/l	0.0050	1.25	BRL	90	75-125		
Lead	**1.14**		mg/l	0.0075	1.25	BRL	91	75-125		

Soluble Metals by EPA 6000/7000 Series Methods - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123495 - SW846 3005A										
Matrix Spike (1123495-MS1)			**Source: SB38837-03**		Prepared & Analyzed: 11-Nov-11					
Iron	**3.84**		mg/l	0.0150	1.25	2.58	101	75-125		
Antimony	**1.23**		mg/l	0.0060	1.25	BRL	99	75-125		
Zinc	**1.18**		mg/l	0.0050	1.25	0.0044	94	75-125		
Silver	**1.32**		mg/l	0.0050	1.25	BRL	105	75-125		
Arsenic	**1.27**		mg/l	0.0040	1.25	0.0050	101	75-125		
Cadmium	**1.19**		mg/l	0.0025	1.25	BRL	95	75-125		
Chromium	**1.19**		mg/l	0.0050	1.25	0.0046	95	75-125		
Copper	**1.23**		mg/l	0.0050	1.25	BRL	98	75-125		
Matrix Spike Dup (1123495-MSD1)			**Source: SB38837-03**		Prepared & Analyzed: 11-Nov-11					
Zinc	**1.16**		mg/l	0.0050	1.25	0.0044	92	75-125	2	20
Lead	**1.11**		mg/l	0.0075	1.25	BRL	89	75-125	3	20
Selenium	**1.24**		mg/l	0.0150	1.25	0.0091	98	75-125	3	20
Antimony	**1.20**		mg/l	0.0060	1.25	BRL	96	75-125	2	20
Nickel	**1.10**		mg/l	0.0050	1.25	BRL	88	75-125	2	20
Iron	**3.68**		mg/l	0.0150	1.25	2.58	88	75-125	4	20
Arsenic	**1.23**		mg/l	0.0040	1.25	0.0050	98	75-125	3	20
Copper	**1.20**		mg/l	0.0050	1.25	BRL	96	75-125	2	20
Cadmium	**1.17**		mg/l	0.0025	1.25	BRL	93	75-125	2	20
Silver	**1.26**		mg/l	0.0050	1.25	BRL	101	75-125	5	20
Chromium	**1.15**		mg/l	0.0050	1.25	0.0046	92	75-125	3	20
Post Spike (1123495-PS1)			**Source: SB38837-03**		Prepared & Analyzed: 11-Nov-11					
Lead	**1.14**		mg/l	0.0075	1.25	BRL	92	80-120		
Nickel	**1.14**		mg/l	0.0050	1.25	BRL	91	80-120		
Zinc	**1.20**		mg/l	0.0050	1.25	0.0044	96	80-120		
Selenium	**1.30**		mg/l	0.0150	1.25	0.0091	103	80-120		
Antimony	**1.25**		mg/l	0.0060	1.25	BRL	100	80-120		
Iron	**3.83**		mg/l	0.0150	1.25	2.58	100	80-120		
Silver	**1.32**		mg/l	0.0050	1.25	BRL	105	80-120		
Arsenic	**1.28**		mg/l	0.0040	1.25	0.0050	102	80-120		
Cadmium	**1.20**		mg/l	0.0025	1.25	BRL	96	80-120		
Copper	**1.24**		mg/l	0.0050	1.25	BRL	99	80-120		
Chromium	**1.20**		mg/l	0.0050	1.25	0.0046	95	80-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123496 - EPA200/SW7000 Series										
Blank (1123496-BLK1)						Prepared & Analyzed: 11-Nov-11				
Mercury	< 0.00020		mg/l	0.00020						
LCS (1123496-BS1)						Prepared & Analyzed: 11-Nov-11				
Mercury	**0.00507**		mg/l	0.00020	0.00500		101	85-115		
Duplicate (1123496-DUP1)			**Source: SB38837-03**			Prepared & Analyzed: 11-Nov-11				
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1123496-MS1)			**Source: SB38837-03**			Prepared & Analyzed: 11-Nov-11				
Mercury	**0.00519**		mg/l	0.00020	0.00500	BRL	104	80-120		
Matrix Spike Dup (1123496-MSD1)			**Source: SB38837-03**			Prepared & Analyzed: 11-Nov-11				
Mercury	**0.00529**		mg/l	0.00020	0.00500	BRL	106	80-120	2	20
Post Spike (1123496-PS1)			**Source: SB38837-03**			Prepared & Analyzed: 11-Nov-11				
Mercury	**0.00524**		mg/l	0.00020	0.00500	BRL	105	85-115		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123212 - General Preparation										
Blank (1123212-BLK1)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	< 0.005		mg/l	0.005						
LCS (1123212-BS1)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.050**		mg/l	0.005	0.0500		100	80-120		
Calibration Blank (1123212-CCB1)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**-0.001**		mg/l							
Calibration Blank (1123212-CCB2)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.00**		mg/l							
Calibration Blank (1123212-CCB3)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.00**		mg/l							
Calibration Blank (1123212-CCB4)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.00**		mg/l							
Calibration Check (1123212-CCV1)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.050**		mg/l		0.0500		100	85-115		
Calibration Check (1123212-CCV2)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.051**		mg/l		0.0500		102	85-115		
Calibration Check (1123212-CCV3)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.051**		mg/l		0.0500		102	85-115		
Calibration Check (1123212-CCV4)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.050**		mg/l		0.0500		100	85-115		
Reference (1123212-SRM1)						Prepared & Analyzed: 08-Nov-11				
Hexavalent Chromium	**0.026**		mg/l	0.005	0.0248		105	85-115		
Batch 1123213 - General Preparation										
Blank (1123213-BLK1)						Prepared & Analyzed: 08-Nov-11				
Total Residual Chlorine	< 0.020		mg/l	0.020						
LCS (1123213-BS1)						Prepared & Analyzed: 08-Nov-11				
Total Residual Chlorine	**0.049**		mg/l	0.020	0.0500		98	90-110		
Reference (1123213-SRM1)						Prepared & Analyzed: 08-Nov-11				
Total Residual Chlorine	**0.138**		mg/l	0.020	0.146		94	85-115		
Batch 1123252 - General Preparation										
Blank (1123252-BLK1)						Prepared & Analyzed: 09-Nov-11				
Cyanide (total)	< 0.00500		mg/l	0.00500						
Blank (1123252-BLK2)						Prepared & Analyzed: 09-Nov-11				
Cyanide (total)	< 0.00500		mg/l	0.00500						
LCS (1123252-BS1)						Prepared & Analyzed: 09-Nov-11				
Cyanide (total)	**0.310**		mg/l	0.00500	0.300		103	90-110		
LCS (1123252-BS2)						Prepared & Analyzed: 09-Nov-11				
Cyanide (total)	**0.314**		mg/l	0.00500	0.300		105	90-110		
Reference (1123252-SRM1)						Prepared & Analyzed: 09-Nov-11				
Cyanide (total)	**0.260**		mg/l	0.00500	0.293		89	75-125		
Batch 1123267 - General Preparation										
Blank (1123267-BLK1)						Prepared & Analyzed: 09-Nov-11				
Total Suspended Solids	< 5		mg/l	5						
LCS (1123267-BS1)						Prepared & Analyzed: 09-Nov-11				
Total Suspended Solids	**84**		mg/l	20	82.0		102	90-110		
Batch 1123474 - General Preparation										
Blank (1123474-BLK1)						Prepared & Analyzed: 10-Nov-11				
Chloride	< 1.00		mg/l	1.00						
Reference (1123474-SRM1)						Prepared & Analyzed: 10-Nov-11				
Chloride	**25.3**		mg/l	1.00	25.0		101	90-110		

Notes and Definitions

GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR5	RPD out of acceptance range.
QR6	The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.
S02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
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.

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 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.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
June O'Connor
Kimberly Wisk
Nicole Leja

SB 38837M

SPECTRUM ANALYTICAL, INC.
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Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [x] Rush TAT - Date Needed: ~~11/11/11~~ 11/11
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

P2F R2R

Report To: IRWIN Engineers
33 W. Central St.
Natick, MA 01760

Telephone #: (508) 653-8007
Project Mgr. MLZ

Invoice To: SAME

P.O. No.: _____ RQN: _____

Project No.: 413-06C/002
Site Name: Cell Signaling
Location: Beverly State: MA
Sampler(s): NGI

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=Deionized Water 10=_____ 11=_____

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	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	List preservative code below: 2 5 4 3	Analyses: VOCs (8260)	cyanide	metals*	TSS, TRC, chloride, SO4 (X)	TPH	SVOCs, PCBs	QA/QC Reporting Notes: * additional charges may apply
38837.01	MW-4	11/8/11	10:30	G	GW	3					X						
.02	MW-5		11:15	G	GW	3					X						S-1/GW-1
.03	MW-2**		9:25	G	GW	3	3		4		X	X	X	X	X	X	S-1/GW-2
.04	TB-1					2											S-1/GW-3

MA DEP MCP CAM Report: Yes [x] No [ ]
CT DPH RCP Report: Yes [ ] No [ ]

QA/QC Reporting Level
- [x] Standard
- [ ] No QC
- [ ] DQA*
- [ ] NY ASP A*
- [ ] NY ASP B*
- [ ] NJ Reduced*
- [ ] NJ Full*
- [ ] TIER II*
- [ ] TIER V*
- [ ] Other _____

State-specific reporting standards:

* one field-filtered + one unfiltered sample

** RGP parameters (see attached)

Relinquished by:	Received by:	Date:	Time:	Temp°C
Marsha Zuck	[illegible]	11.8.11	1250	
[illegible]	[illegible]	11/8/11	1718	0.7

- [ ] EDD Format _____
- [ ] E-mail to _____

[ ] Ambient [x] Iced [ ] Refrigerated [ ] Fridge temp ___ °C [ ] Freezer temp ___ °C

Category I - Petroleum Related Site Remediation				
Sub-category C - Petroleum Sites with Additional Contamination				
Category II - Non Petroleum Site Remediation				
Sub-category B - VOC Sites with Additional Contamination				
Category III - Contaminated Construction Dewatering				
Sub-category A - General Urban Fill Sites				
Sub-category B - Known Contaminated Sites				
Category IV - Miscellaneous Related Discharges				
Sub-category A - Aquifer Pump Testing to Evaluate Formerly Contaminated Sites				
Sub-category B - Well Development/Rehabilitation at Contaminated/Formerly Contaminated Sites				
Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes				
Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)				
Parameter	**CAS Number(s)**	**Effluent Limit**	**Limit type based on monthly sample**	**Sample Type**
1. Total Suspended Solids (TSS)		30 milligrams/liter (mg/l), 50 mg/l for hydrostatic testing	monthly average	grab
2. Total Residual Chlorine (TRC) [1]		Freshwater = 11 ug/l Saltwater = 7.5 ug/l	monthly average	grab
3. Total Petroleum Hydrocarbons (TPH)		5.0 mg/l	daily maximum	grab
4. Cyanide (CN) [2, 3]	57125	Freshwater = 5.2 ug/l Saltwater = 1.0 ug/l	monthly average	grab
5. Benzene (B)	71432	50.0 ug/l for hydrostatic testing only	daily maximum	grab
6. Toluene (T)	108883	(limited as ug/L total BTEX)	daily maximum	grab
7. Ethylbenzene (E)	100-41-4	(limited as ug/L total BTEX)	daily maximum	grab
8. (m,p,o) Xylenes (X)	108-88-3; 106-42-3; 95-47-6; 1330-20-7	(limited as ug/L total BTEX)	daily maximum	grab
9. Total Benzene, Toluene, Ethyl Benzene, and Xylenes (BTEX) [4]		100 ug/l	daily maximum	grab
10. Ethylene Dibromide (EDB) (1,2-Dibromoethane)	106-93-4	0.05 ug/l	daily maximum	grab
11. Methyl-tert-Butyl Ether (MtBE)	1634-04-4	70.0 ug/l	daily maximum	grab

Category I - Petroleum Related Site Remediation				
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Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)				
Parameter	**CAS Number(s)**	**Effluent Limit**	**Limit type based on monthly sample**	**Sample Type**
12.tert-Butyl Alcohol (TBA) (TertiaryButanol)	75-65-0	Monitor Only (ug/L)	daily maximum	grab
13. tert-Amyl Methyl Ether (TAME)	994-05-08	Monitor Only (ug/L)	daily maximum	grab
14. Naphthalene [5]	91-20-3	20 ug/l	daily maximum	grab
15. Carbon Tetrachloride	56-23-5	4.4 ug/l	daily maximum	grab
16. 1,2 Dichlorobenzene (o-DCB)	95-50-1	600 ug/l	daily maximum	grab
17. 1,3 Dichlorobenzene (m-DCB)	541-73-1	320 ug/l	daily maximum	grab
18. 1,4 Dichlorobenzene (p-DCB)	106-46-7	5.0 ug/l	daily maximum	grab
18a. Total dichlorobenzene		763 ug/l - NH only	daily maximum	grab
19. 1,1 Dichloroethane (DCA)	75-34-3	70 ug/l	daily maximum	grab
20. 1,2 Dichloroethane (DCA)	107-06-2	5.0 ug/l	daily maximum	grab
21. 1,1 Dichloroethene (DCE)	75-35-4	3.2 ug/l	daily maximum	grab
22. cis-1,2 Dichloroethene (DCE)	156-59-2	70 ug/l	daily maximum	grab
23. Methylene Chloride	75-09-2	4.6 ug/l	daily maximum	grab
24. Tetrachloroethene (PCE)	127-18-4	5.0 ug/l	daily maximum	grab
25. 1,1,1 Trichloro-ethane (TCA)	71-55-6	200 ug/l	daily maximum	grab
26. 1,1,2 Trichloro-ethane (TCA)	79-00-5	5.0 ug/l	daily maximum	grab
27. Trichloroethene (TCE)	79-01-6	5.0 ug/l	daily maximum	grab

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Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes				
Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)				
Parameter	**CAS Number(s)**	**Effluent Limit**	**Limit type based on monthly sample**	**Sample Type**
28. Vinyl Chloride (Chloroethene)	75-01-4	2.0 ug/l	daily maximum	grab
29. Acetone	67-64-1-	Monitor Only (ug/L)	daily maximum	grab
30. 1,4 Dioxane	123-91-1	Monitor Only (ug/L)	daily maximum	grab
31. Total Phenols	108-95-2	300 ug/l	daily maximum	grab
32. Pentachlorophenol (PCP)	87-86-5	1.0 ug/l	daily maximum	grab
33. Total Phthalates (Phthalate esters) [6]		3.0 ug/L	monthly average	grab
34. Bis (2-Ethylhexyl) Phthalate [Di-(ethylhexyl) Phthalate]	117-81-7	6.0 ug/l	daily maximum	grab
35. Total Group I Polycyclic Aromatic Hydrocarbons (PAH)		10.0 ug/l	daily maximum	grab
a. Benzo(a) Anthracene [7]	56-55-3	0.0038 ug/l	daily maximum	grab
b. Benzo(a) Pyrene [7]	50-32-8	0.0038 ug/l	daily maximum	grab
c. Benzo(b)Fluoranthene [7]	205-99-2	0.0038 ug/l	daily maximum	grab
d. Benzo(k)Fluoranthene [7]	207-08-9	0.0038 ug/l	daily maximum	grab
e. Chrysene [7]	218-01	0.0038 ug/l	daily maximum	grab
f. Dibenzo(a,h)anthracene [7]	53-70-3	0.0038 ug/l	daily maximum	grab
g. Indeno(1,2,3-cd) Pyrene [7]	193-39-5	0.0038 ug/l	daily maximum	grab

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Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)				
Parameter	**CAS Number(s)**	**Effluent Limit**	**Limit type based on monthly sample**	**Sample Type**
36. Total Group II Polycyclic Aromatic Hydrocarbons (PAH)		100 ug/l	daily maximum	grab
h. Acenaphthene	83-32-9	(limited as total ug/L Group II PAHs)	daily maximum	grab
i. Acenaphthylene	208-96-8	(limited as total ug/L Group II PAHs)	daily maximum	grab
j. Anthracene	120-12-7	(limited as total ug/L Group II PAHs)	daily maximum	grab
k. Benzo(ghi) Perylene	191-24-2	(limited as total ug/L Group II PAHs)	daily maximum	grab
l. Fluoranthene	206-44-0	(limited as total ug/L Group II PAHs)	daily maximum	grab
m. Fluorene	86-73-7	(limited as total ug/L Group II PAHs)	daily maximum	grab
n. Naphthalene [5]	91-20-3	20 ug/l	daily maximum	grab
o. Phenanthrene	85-01-8	(limited as ug/L total Group II PAHs)	daily maximum	grab
p. Pyrene	129-00-0	(limited as ug/L total Group II PAHs)	daily maximum	grab
37. Total Polychlorinated Biphenyls (PCBs) [8, 9]	85-68-7; 84-74-2; 117-84-0; 84-66-2; 131-11-3; 117-81-7.	0.000064 ug/L	daily maximum	grab
38. Chloride	16887006	Monitor only	daily maximum	grab

Category I - Petroleum Related Site Remediation							
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Sub-category D - Long-Term Remediation of Contaminated Non-residential Sumps and Dikes							
Sub-category E - Short-term Contaminated Dredging Drain Back Waters (if not covered by 401/404 permit)							
Metal parameters	CAS Number(s)	Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Massachusetts (ug/l) [11]		Total Recoverable Metal Limit @ H [10] = 25 mg/l CaCO3 for Discharges in New Hampshire (ug/l) [11]		Limit type based on monthly sample	Sample Type
		Freshwater	Saltwater	Freshwater	Saltwater		
39. Antimony	7440360	5.6		5.6		daily maximum	grab
40. Arsenic	7440382	10	36	10	36	monthly average	grab
41. Cadmium	7440439	0.2	8.9	0.8	9.3	monthly average	grab
42. Chromium III (trivalent)	16065831	48.8	100	27.7	100	monthly average	grab
43. Chromium VI (hexavalent)	18540299	11.4	50.3	11.4	50.3	monthly average	grab
44. Copper	7440508	5.2	3.7	2.9	3.7	monthly average	grab
45. Lead	7439921	1.3	8.5	0.5	8.5	monthly average	grab
46. Mercury	7439976	0.9	1.1	0.9	1.1	monthly average	grab
47. Nickel	7440020	29	8.2	16.1	8.2	monthly average	grab
48. Selenium	7782492	5	71	5	71	monthly average	grab
49. Silver	7440224	1.2	2.2	0.4	2.2	daily maximum	grab
50. Zinc	7440666	66.6	85.6	37	85.6	monthly average	grab
51. Iron	7439896	1,000		1,000		daily maximum	grab

Category IV - Miscellaneous Related Discharges				
Sub-category C - Hydrostatic Testing of Pipelines and Tanks				
Parameter	**CAS Number(s)**	**Effluent Limit**	**Limit type based on monthly sample**	**Sample Type**
n. Naphthalene [5]	91-20-3	20 ug/l	daily maximum	grab
o. Phenanthrene	85-01-8	(limited as ug/L total Group II PAHs)	daily maximum	grab
p. Pyrene	129-00-0	(limited as ug/L total Group II PAHs)	daily maximum	grab

Category IV - Miscellaneous Related Discharges							
Sub-category C - Hydrostatic Testing of Pipelines and Tanks							
Metal parameters	**CAS Number(s)**	**Total Recoverable Metal Limit @ H [10]= 50 mg/l CaCO3 for discharges in Mass. (ug/l) [11-12]**		**Total Recoverable Metal Limit @ H [10] = 25 mg/l CaCO3 for Discharges in New Hampshire (ug/l) [11-12]**		**Limit type based on monthly sample**	**Sample Type**
		Freshwater	**Saltwater**	**Freshwater**	**Saltwater**		
42. Chromium III (trivalent)	16065831	48.8	100	27.7	100	monthly average	grab
43. Chromium VI (hexavalent)	18540299	11.4	50.3	11.4	50.3	monthly average	grab
45. Lead	7439921	1.3	8.5	0.5	8.5	monthly average	grab
47. Nickel	7440020	29	8.2	16.1	8.2	monthly average	grab
50. Zinc	7440666	66.6	85.6	37	85.6	monthly average	grab
51. Iron	7439896	1,000		1,000		daily maximum	grab

Footnotes:

[1] Although the maximum values for TRC are 11ug/l and 7.5 ug/l for freshwater, and saltwater respectively, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 20 ug/l).

[2] Limits for cyanide are based on EPA's water quality criteria expressed as micrograms (ug/L) of free cyanide per liter. There is currently no EPA approved test method for free cyanide. Therefore, total cyanide must be reported.

[3] Although the maximum values for cyanide are 5.2 ug/l and 1.0 ug/l for freshwater and saltwater, respectively, the compliance limits are equal to the minimum level (ML) of the Method 335.4 as listed in Appendix VI (i.e., 10 ug/l).

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

[5] Naphthalene can be reported as both a purgeable (VOC) and extractable (SVOC) organic compound. If both VOC and SVOC are analyzed, the highest value must be used unless the QC criteria for one of the analyses is not met. In such cases, the value from the analysis meeting the QC criteria must be used.

[6] The sum of individual phthalate compounds(not including the #34, Bis (2-Ethylhexyl) Phthalate . The compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.
Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measurement of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.

[7] Although the maximum value for the individual PAH compounds is 0.0038 ug/l, the compliance limits are equal to the minimum level (ML) of the test method used as listed in Appendix VI.

[8] In the November 2002 WQC, EPA has revised the definition of Total PCBs for aquatic life as *total PCBs is the sum of all homologue, all isomer, all congener, or all "Oroclor analyses."Total values calculated for reporting on NOIs and discharge monitoring reports shall be calculated by adding the measured concentration of each constituent. If the measure of a constituent is less than the ML, the permittee shall use a value of zero for that constituent. For each test, the permittee shall also attach the raw data for each constituent to the discharge monitoring report, including the minimum level and minimum detection level for the analysis.*

[9]Although the maximum value for total PCBs is 0.000064 ug/l, the compliance limit is equal to the minimum level (ML) of the test method used as listed in Appendix VI (i.e., 0.5 ug/l for Method 608 or 0.00005 ug/l when Method 1668a is approved).

[10] Hardness. Cadmium, Chromium III, Copper, Lead, Nickel, Silver, and Zinc are Hardness Dependent.

[11] For a Dilution Factor (DF) from 1 to 5, metals limits are calculated using DF times the base limit for the metal. See Appendix IV. For example, iron limits are calculated using DF x 1,000ug/L (the iron base limit). Therefore DF is 1.5, the iron limit will be 1,500 ug/L; DF 2, then iron limit =1,000 x 2 =2,000 ug/L., etc. not to exceed the DF=5.

[12] Minimum Level (ML) is the lowest level at which the analytical system gives a recognizable signal and acceptable calibration point for the analyte. The ML represents the lowest concentration at which an analyte can be measured with a known level of confidence. The ML is calculated by multiplying the laboratory-determined method detection limit by 3.18 (see 40 CFR Part 136, Appendix B).

SB 38837M

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [x] Rush TAT - Date Needed: ~~11/11/11~~ 11/11 per RR
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: IRWIN Engineers
33 W. Central St.
Natick, MA 01760
Telephone #: (508) 653-8007
Project Mgr. MLZ

Invoice To: SAME
P.O. No.: RQN:

Project No.: 413-06C/002
Site Name: Cell Signaling
Location: Beverly State: MA
Sampler(s): NGI

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= Deionized Water 10= 11=

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	VOCs (8260)	cyanide	metals*	TSS, TRC, chloride, Cr(VI)	TPH (dcy)	SVOCs, PCBs	
38837.01	MW-4	11/8/11	10:30	G	GW	3				X						
.02	MW-5		11:15	G	GW	3				X						
.03	MW-2**		9:25	G	GW	3	3		4	X	X	X	X	X	X	
.04	TB-1					2										

List preservative code below:

2	5	4		3			

QA/QC Reporting Notes:
* additional charges may apply

MA DEP MCP CAM Report: Yes [x] No [ ]
CT DPH RCP Report: Yes [ ] No [ ]

QA/QC Reporting Level
[x] Standard [ ] No QC [ ] DQA*
[ ] NY ASP A* [ ] NY ASP B*
[ ] NJ Reduced* [ ] NJ Full*
[ ] TIER II* [ ] TIER V*
[ ] Other

State-specific reporting standards:

Pre-Lent reg
S-1/GW-1
S-1/GW-2
S-1/GW-3

* one field-filtered + one unfiltered sample

** RGP parameters (see attached)

Relinquished by:	Received by:	Date:	Time:	Temp°C
Martin Zaso	[illegible]	11.8.11	1250	
[illegible]	[illegible]	11/8/11	1718	0.7

[ ] EDD Format
[ ] E-mail to

[ ] Ambient [x] Iced [ ] Refrigerated [ ] Fridge temp °C [ ] Freezer temp °C

Report Date:
17-Nov-11 17:23

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Irwin Engineers, Inc.
33 West Central Street
Natick, MA 01760
Attn: Martha Zirbel

Project: Cell Signaling-Beverly, MA
Project #: 413-06C/003

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB39315-01	MW-2	Ground Water	14-Nov-11 11:45	15-Nov-11 16:50
SB39315-02	TB-1	Aqueous	14-Nov-11 00:00	15-Nov-11 16:50

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

Authorized by:

Nicole Leja
Laboratory Director

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 8 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are 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).

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 413-06C/003
Project Location: Cell Signaling-Beverly, MA	**RTN:**
This form provides certifications for the following data set:	SB39315-01 through SB39315-02
Matrices: Aqueous Ground Water	

CAM Protocol

8260 VOC CAM II A	7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
✓ 8270 SVOC CAM II B	7010 Metals CAM III C	MassDEP EPH CAM IV B	8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
6010 Metals CAM III A	6020 Metals CAM III D	8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	✓ Yes No

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	✓ Yes No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	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.

Nicole Leja
Laboratory Director
Date: 11/17/2011

CASE NARRATIVE:

The samples were received 1.1 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. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

There is no relevant protocol-specific QC and/or performance standards non-conformances to report.

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
MW-2	413-06C/003	Ground Water	14-Nov-11 11:45	15-Nov-11
SB39315-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Microextractable Organic Compounds													
106-93-4	1,2-Dibromoethane (EDB)	< 0.0100		µg/l	0.0100	0.00740	1	EPA 504.1	16-Nov-11	16-Nov-11	SM	1123819	
Subcontracted Analyses													
Subcontracted Analyses													
Prepared by method BNA_SIM_W_PR													
Analysis performed by Spectrum Analytical, Inc.-- RI Division													
87-86-5	Pentachlorophenol	< 1.0	U	ug/L	1.0	0.055	1	SW846 8270D SIM	16-Nov-11	17-Nov-11	MRI90	63104	
Surrogate recoveries:													
205440-82-0	*Benzo(e)pyrene-d12*	*64.8*			*48-162 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-1 SB39315-02	413-06C/003	Aqueous	14-Nov-11 00:00	15-Nov-11

CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Microextractable Organic Compounds													
106-93-4	1,2-Dibromoethane (EDB)	< 0.0100		µg/l	0.0100	0.00740	1	EPA 504.1	16-Nov-11	16-Nov-11	SM	1123819	

Microextractable Organic Compounds - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1123819 - General Preparation SVOC										
Blank (1123819-BLK1)						Prepared & Analyzed: 16-Nov-11				
1,2-Dibromoethane (EDB)	< 0.0100		µg/l	0.0100						
LCS (1123819-BS1)						Prepared & Analyzed: 16-Nov-11				
1,2-Dibromoethane (EDB)	**0.210**		µg/l	0.0100	0.200		105	50-150		
LCS Dup (1123819-BSD1)						Prepared & Analyzed: 16-Nov-11				
1,2-Dibromoethane (EDB)	**0.215**		µg/l	0.0100	0.200		108	50-150	2	50
Duplicate (1123819-DUP1)			**Source: SB39315-01**			Prepared & Analyzed: 16-Nov-11				
1,2-Dibromoethane (EDB)	< 0.0100		µg/l	0.0100		BRL				30

Subcontracted Analyses - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 63104 - BNA_SIM_W_PR										
LCS (LCS-63104)						Prepared: 16-Nov-11	Analyzed: 17-Nov-11			
Pentachlorophenol	**2.844**		ug/L	1.0			114	10-150		
Surrogate: Benzo(e)pyrene-d12	*2.090*		ug/L				*83.6*	*48-162*		
LCS Dup (LCSD-63104)						Prepared: 16-Nov-11	Analyzed: 17-Nov-11			
Pentachlorophenol	**2.853**		ug/L	1.0			114	10-150	0.296	40.0
Surrogate: Benzo(e)pyrene-d12	*2.118*		ug/L				*84.7*	*48-162*		
Blank (MB-63104)						Prepared: 16-Nov-11	Analyzed: 17-Nov-11			
Pentachlorophenol	< 1.0	U	ug/L	1.0				-		
Surrogate: Benzo(e)pyrene-d12	*2.114*		ug/L				*84.5*	*48-162*		

Notes and Definitions

U	Compound not detected above a method detection limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

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.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
Nicole Leja

SB 39315 ✓ DM

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- ☐ Standard TAT - 7 to 10 business days
- ☒ Rush TAT - Date Needed: ~~5 day~~ 2 days Per Dale
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: IRWIN Engineers
33 W Central St
Natick, MA 01760

Telephone #: (508) 653-8007
Project Mgr. MLZ

Invoice To: SAME

P.O. No.: _____ RQN: _____

Project No.: 413-06C/003
Site Name: Cell Signaling
Location: Beverly State: MA
Sampler(s): NGI, CAS

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= Deionized Water 10= _____ 11= _____

List preservative code below: 1 1

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	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: EDB (Method 504.1)	trip blanks	Pentachlorophenol*	QA/QC Reporting Notes: * additional charges may apply
39315.01	MW-2	11/14/11	11:45	G	GW	3	1			X		X	S-1/GW-1
↓ 02	TB-1	↓				2					X		S-1/GW-2
													S-1/GW-3
													* 1 ppb detection limit for RGP requirement

MA DEP MCP CAM Report: Yes ☒ No ☐
CT DPH RCP Report: Yes ☐ No ☐

QA/QC Reporting Level
☒ Standard ☐ No QC ☐ DQA*
☐ NY ASP A* ☐ NY ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ TIER II* ☐ TIER V*
☐ Other _____

State-specific reporting standards:

Relinquished by:	Received by:	Date:	Time:	Temp°C
Malcolm Cravens	[signature]	11-15-11	1225	
[signature]	[signature]	11/15/11	16:50	L1

☐ EDD Format _____
☐ E-mail to _____

☐ Ambient ☐ Iced ☒ Refrigerated ☐ Fridge temp ___ °C ☐ Freezer temp ___ °C

Report Date:
03-Aug-12 14:30

☐ Final Report
☐ Re-Issued Report
☑ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

Irwin Engineers, Inc.
33 West Central Street
Natick, MA 01760
Attn: Andrew Irwin

Project: Cell Signaling-Beverly, MA
Project #: 413-06F/2012/001

Laboratory ID	Client Sample ID	Matrix	Date Sampled	Date Received
SB51831-01	GW-Disposal	Waste Water	26-Jun-12 11:45	27-Jun-12 15:30
SB51831-02	TB-1	Trip Blank	26-Jun-12 00:00	27-Jun-12 15:30

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

Authorized by:

Nicole Leja
Laboratory Director

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 48 pages of analytical data plus Chain of Custody document(s). When the Laboratory Report is indicated as revised, this report supersedes any previously dated reports for the laboratory ID(s) referenced above. Where this report identifies subcontracted analyses, copies of the subcontractor's test report are 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).

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

Matrices	Waste Water
Containers	✓ Satisfactory
Aqueous Preservative	N/A ✓ pH≤2 pH>2 pH adjusted to <2 in lab
Temperature	Received on ice Received at 4 ± 2 ºC ✓ Other: 1.4ºC

Were all QA/QC procedures followed as required by the EPH method? *Yes*
Were any significant modifications made to the EPH method as specified in Section 11.3? *No*
Were all performance/acceptance standards for required QA/QC procedures achieved? *Yes*

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:

Nicole Leja
Laboratory Director

MassDEP Analytical Protocol Certification Form

Laboratory Name: Spectrum Analytical, Inc.	**Project #:** 413-06F/2012/001
Project Location: Cell Signaling-Beverly, MA	**RTN:**
This form provides certifications for the following data set:	SB51831-01 through SB51831-02
Matrices: Trip Blank Waste Water	

CAM Protocol

✓ 8260 VOC CAM II A	✓ 7470/7471 Hg CAM III B	MassDEP VPH CAM IV A	✓ 8081 Pesticides CAM V B	7196 Hex Cr CAM VI B	MassDEP APH CAM IX A
✓ 8270 SVOC CAM II B	7010 Metals CAM III C	✓ MassDEP EPH CAM IV B	✓ 8151 Herbicides CAM V C	8330 Explosives CAM VIII A	TO-15 VOC CAM IX B
✓ 6010 Metals CAM III A	6020 Metals CAM III D	✓ 8082 PCB CAM V A	9012 Total Cyanide/PAC CAM VI A	9014 Total Cyanide/PAC CAM VI A	6860 Perchlorate CAM VIII B

Affirmative responses to questions A through F are required for "Presumptive Certainty" status

A	Were all samples received in a condition consistent with those described on the Chain of Custody, properly preserved (including temperature) in the field or laboratory, and prepared/analyzed within method holding times?	✓ Yes No
B	Were the analytical method(s) and all associated QC requirements specified in the selected CAM protocol(s) followed?	✓ Yes No
C	Were all required corrective actions and analytical response actions specified in the selected CAM protocol(s) implemented for all identified performance standard non-conformances?	✓ Yes No
D	Does the laboratory report comply with all the reporting requirements specified in CAM VII A, "Quality Assurance and Quality Control Guidelines for the Acquisition and Reporting of Analytical Data"?	✓ Yes No
E	a. VPH, EPH, and APH Methods only: Was each method conducted without significant modification(s)? b. APH and TO-15 Methods only: Was the complete analyte list reported for each method?	✓ Yes No Yes No
F	Were all applicable CAM protocol QC and performance standard non-conformances identified and evaluated in a laboratory narrative (including all "No" responses to questions A through E)?	✓ Yes No

Responses to questions G, H and I below are required for "Presumptive Certainty" status

G	Were the reporting limits at or below all CAM reporting limits specified in the selected CAM protocol(s)?	Yes ✓ No

***Data User Note:* Data that achieve "Presumptive Certainty" status may not necessarily meet the data usability and representativeness requirements described in 310 CMR 40. 1056 (2)(k) and WSC-07-350.**

H	Were all QC performance standards specified in the CAM protocol(s) achieved?	Yes ✓ No
I	Were results reported for the complete analyte list specified in the selected CAM protocol(s)?	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.

Nicole Leja
Laboratory Director
Date: 8/3/2012

CASE NARRATIVE:

The samples were received 1.4 degrees Celsius, please refer to the Chain of Custody for details specific to temperature upon receipt. An infrared thermometer with a tolerance of +/- 1.0 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. Regulatory limits may not be achieved if specific method and/or technique was not requested on the Chain of Custody.

According to WSC-CAM 5/2009 Rev.1, Table 11 A-1, recovery for some VOC analytes have been deemed potentially difficult. Although they may still be within the recommended recovery range, a range has been set based on historical control limits.

These samples do not exhibit the characteristics of reactivity as defined in 40 CFR 261.23, sections (1), (2), (4), and (5); however, Spectrum Analytical, Inc. does not test for detonation, explosive reaction or potential, or forbidden explosives as defined in 40 CFR 261.23, sections (3), (6), (7) and (8).

Some target analytes which are not listed as exceptions in the Summary of CAM Reporting Limits may exceed the recommended RL based on sample initial volume or weight provided, % moisture content, or responsiveness of a particular analyte to purge and trap instrumentation.

The laboratory has set in-house acceptance limits of 20% for ICV standards. These limits are stricter criteria than MA DEP CAM for organic test methods; therefore, the end user should evaluate the narrated deviations based on the program requirements he or she is sampling under.

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

MADEP EPH 5/2004 R

Laboratory Control Samples:

1215735 BSD

Benzo (b) fluoranthene RPD 28% (25%) is outside individual acceptance criteria, but within overall method allowances.

1215735-BSD2

The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.

Benzo (b) fluoranthene

SW846 6010C

Duplicates:

1215916-DUP1 *Source: SB51831-01*

The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.

Iron

SW846 8260C

Calibration:

1205015

SW846 8260C

Calibration:

1205015

Analyte quantified by quadratic equation type calibration.

1,2,3-Trichlorobenzene
Carbon disulfide
Naphthalene

This affected the following samples:

1216122-BLK1
1216122-BS1
1216122-BSD1
GW-Disposal
S205312-ICV1
S208108-CCV1

1207013

Analyte quantified by quadratic equation type calibration.

1,2-Dibromo-3-chloropropane
Bromoform
cis-1,3-Dichloropropene
Dibromochloromethane
Di-isopropyl ether
Naphthalene
trans-1,3-Dichloropropene
trans-1,4-Dichloro-2-butene

This affected the following samples:

1216024-BLK1
1216024-BS1
1216024-BSD1
S208019-ICV1
S208098-CCV1
TB-1

S205312-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Acetone (127%)

This affected the following samples:

1216122-BLK1
1216122-BS1
1216122-BSD1
GW-Disposal
S208108-CCV1

S208019-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

cis-1,2-Dichloroethene (127%)
Dichlorodifluoromethane (Freon12) (73%)
Di-isopropyl ether (134%)

SW846 8260C

Calibration:

S208019-ICV1

This affected the following samples:

1216024-BLK1
1216024-BS1
1216024-BSD1
S208098-CCV1
TB-1

Laboratory Control Samples:

1216122 BS/BSD

2-Hexanone (MBK) percent recoveries (66/67) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Tert-Butanol / butyl alcohol percent recoveries (68/71) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Tetrahydrofuran percent recoveries (67/65) are outside individual acceptance criteria (70-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Samples:

S208098-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

1,1,2-Trichlorotrifluoroethane (Freon 113) (22.1%)
1,1-Dichloroethene (20.9%)
Bromodichloromethane (27.7%)
Carbon disulfide (28.4%)
Carbon tetrachloride (31.7%)
trans-1,2-Dichloroethene (20.5%)
Trichlorofluoromethane (Freon 11) (25.1%)

This affected the following samples:

1216024-BLK1
1216024-BS1
1216024-BSD1
TB-1

S208108-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2-Hexanone (MBK) (-33.5%)
Acrylonitrile (-27.9%)
Tert-Butanol / butyl alcohol (-32.4%)
Tetrahydrofuran (-33.4%)
trans-1,4-Dichloro-2-butene (-24.9%)

Analyte percent drift is outside individual acceptance criteria (20), but within overall method allowances.

Acetone (-25.0%)
Ethanol (-24.7%)

SW846 8260C

Samples:

S208108-CCV1

This affected the following samples:

1216122-BLK1
1216122-BS1
1216122-BSD1
GW-Disposal

SB51831-01 *GW-Disposal*

Sample dilution required for high concentration of target analytes to be within the instrument calibration range.

SW846 8270D

Calibration:

1206074

Analyte quantified by quadratic equation type calibration.

Benzidine

This affected the following samples:

1215739-BLK1
1215739-BS1
1215739-BSD1
GW-Disposal
S207780-ICV1
S208130-CCV1
S208135-CCV1
S208191-CCV1

S207780-ICV1

Analyte percent recovery is outside individual acceptance criteria (80-120).

Bis(2-chloroethyl)ether (77%)

This affected the following samples:

1215739-BLK1
1215739-BS1
1215739-BSD1
GW-Disposal
S208130-CCV1
S208135-CCV1
S208191-CCV1

Laboratory Control Samples:

1215739 BS/BSD

2,4-Dinitrophenol percent recoveries (30/29) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

4-Nitrophenol percent recoveries (20/20) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

SW846 8270D

Laboratory Control Samples:

1215739 BS/BSD

Benzidine percent recoveries (21/0) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Benzoic acid percent recoveries (17/17) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Bis(2-chloroisopropyl)ether percent recoveries (42/39) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Pentachlorophenol percent recoveries (21/20) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Phenol percent recoveries (27/25) are outside individual acceptance criteria (40-130), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Pyridine percent recoveries (40/36) are outside individual acceptance criteria (40-140), but within overall method allowances. All reported results of the following samples are considered to have a potentially low bias:

GW-Disposal

Samples:

S208130-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

4-Nitrophenol (-45.2%)
Aniline (-20.5%)
Benzoic acid (-31.6%)
Benzyl alcohol (-22.2%)
Bis(2-chloroisopropyl)ether (-34.9%)
Di-n-octyl phthalate (-23.4%)
N-Nitrosodi-n-propylamine (-27.9%)
Pentachlorophenol (-39.1%)

This affected the following samples:

1215739-BLK1

S208135-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,4,6-Trichlorophenol (-24.7%)
2,4-Dinitrophenol (-56.8%)
4-Nitrophenol (-50.7%)
Aniline (-25.1%)
Benzoic acid (-47.8%)
Benzyl alcohol (-31.8%)
Bis(2-chloroisopropyl)ether (-28.3%)
Di-n-octyl phthalate (-23.6%)
N-Nitrosodi-n-propylamine (-26.4%)
Pentachlorophenol (-78.3%)

SW846 8270D

Samples:

S208135-CCV1

This affected the following samples:

1215739-BS1
1215739-BSD1

S208191-CCV1

Analyte percent difference is outside individual acceptance criteria (20), but within overall method allowances.

2,4,6-Trichlorophenol (-24.7%)
2,4-Dinitrophenol (-56.8%)
4-Nitrophenol (-50.7%)
Aniline (-25.1%)
Benzoic acid (-47.8%)
Benzyl alcohol (-31.8%)
Bis(2-chloroisopropyl)ether (-28.3%)
Di-n-octyl phthalate (-23.6%)
N-Nitrosodi-n-propylamine (-26.4%)
Pentachlorophenol (-78.3%)

This affected the following samples:

GW-Disposal

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GW-Disposal	413-06F/2012/001	Waste Water	26-Jun-12 11:45	27-Jun-12
SB51831-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 25.0		µg/l	25.0	16.2	25	SW846 8260C	06-Jul-12	06-Jul-12	eq	1216122	
67-64-1	Acetone	< 250		µg/l	250	63.9	25	"	"	"	"	"	
107-13-1	Acrylonitrile	< 12.5		µg/l	12.5	11.5	25	"	"	"	"	"	
71-43-2	Benzene	< 25.0		µg/l	25.0	16.7	25	"	"	"	"	"	
108-86-1	Bromobenzene	< 25.0		µg/l	25.0	18.0	25	"	"	"	"	"	
74-97-5	Bromochloromethane	< 25.0		µg/l	25.0	17.8	25	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 12.5		µg/l	12.5	12.0	25	"	"	"	"	"	
75-25-2	Bromoform	< 25.0		µg/l	25.0	15.1	25	"	"	"	"	"	
74-83-9	Bromomethane	< 50.0		µg/l	50.0	28.5	25	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 250		µg/l	250	43.4	25	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 25.0		µg/l	25.0	14.0	25	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 25.0		µg/l	25.0	20.5	25	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 25.0		µg/l	25.0	18.6	25	"	"	"	"	"	
75-15-0	Carbon disulfide	< 50.0		µg/l	50.0	15.7	25	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 25.0		µg/l	25.0	13.7	25	"	"	"	"	"	
108-90-7	Chlorobenzene	< 25.0		µg/l	25.0	16.4	25	"	"	"	"	"	
75-00-3	Chloroethane	< 50.0		µg/l	50.0	25.8	25	"	"	"	"	"	
67-66-3	Chloroform	< 25.0		µg/l	25.0	17.2	25	"	"	"	"	"	
74-87-3	Chloromethane	< 50.0		µg/l	50.0	36.8	25	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 25.0		µg/l	25.0	19.8	25	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 25.0		µg/l	25.0	18.3	25	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 50.0		µg/l	50.0	23.2	25	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 12.5		µg/l	12.5	7.22	25	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 12.5		µg/l	12.5	8.18	25	"	"	"	"	"	
74-95-3	Dibromomethane	< 25.0		µg/l	25.0	16.6	25	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 25.0		µg/l	25.0	16.7	25	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 25.0		µg/l	25.0	17.8	25	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 25.0		µg/l	25.0	15.6	25	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 50.0		µg/l	50.0	11.2	25	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 25.0		µg/l	25.0	17.0	25	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 25.0		µg/l	25.0	19.5	25	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 25.0		µg/l	25.0	12.2	25	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	**867**		µg/l	25.0	17.9	25	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 25.0		µg/l	25.0	17.0	25	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 25.0		µg/l	25.0	17.8	25	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 25.0		µg/l	25.0	20.2	25	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 25.0		µg/l	25.0	15.1	25	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 25.0		µg/l	25.0	15.9	25	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 12.5		µg/l	12.5	6.30	25	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 12.5		µg/l	12.5	12.5	25	"	"	"	"	"	
100-41-4	Ethylbenzene	< 25.0		µg/l	25.0	18.3	25	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 12.5		µg/l	12.5	11.2	25	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 250		µg/l	250	13.6	25	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GW-Disposal	413-06F/2012/001	Waste Water	26-Jun-12 11:45	27-Jun-12
SB51831-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds			GS1										
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 25.0		µg/l	25.0	15.5	25	SW846 8260C	06-Jul-12	06-Jul-12	eq	1216122	
99-87-6	4-Isopropyltoluene	< 25.0		µg/l	25.0	15.2	25	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 25.0		µg/l	25.0	16.3	25	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 250		µg/l	250	23.3	25	"	"	"	"	"	
75-09-2	Methylene chloride	< 50.0		µg/l	50.0	17.2	25	"	"	"	"	"	
91-20-3	Naphthalene	< 50.0		µg/l	50.0	8.28	25	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 25.0		µg/l	25.0	19.0	25	"	"	"	"	"	
100-42-5	Styrene	< 25.0		µg/l	25.0	15.4	25	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 25.0		µg/l	25.0	15.6	25	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 12.5		µg/l	12.5	8.72	25	"	"	"	"	"	
127-18-4	Tetrachloroethene	**596**		µg/l	25.0	18.6	25	"	"	"	"	"	
108-88-3	Toluene	< 25.0		µg/l	25.0	20.3	25	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 25.0		µg/l	25.0	9.40	25	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 25.0		µg/l	25.0	9.00	25	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 25.0		µg/l	25.0	19.6	25	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 25.0		µg/l	25.0	14.6	25	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 25.0		µg/l	25.0	16.0	25	"	"	"	"	"	
79-01-6	Trichloroethene	**217**		µg/l	25.0	18.9	25	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 25.0		µg/l	25.0	15.7	25	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 25.0		µg/l	25.0	18.4	25	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 25.0		µg/l	25.0	18.9	25	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 25.0		µg/l	25.0	18.6	25	"	"	"	"	"	
75-01-4	Vinyl chloride	< 25.0		µg/l	25.0	20.2	25	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 50.0		µg/l	50.0	41.0	25	"	"	"	"	"	
95-47-6	o-Xylene	< 25.0		µg/l	25.0	22.0	25	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 50.0		µg/l	50.0	36.0	25	"	"	"	"	"	
60-29-7	Ethyl ether	< 25.0		µg/l	25.0	17.3	25	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 25.0		µg/l	25.0	18.0	25	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 25.0		µg/l	25.0	19.6	25	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 25.0		µg/l	25.0	18.2	25	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 250		µg/l	250	216	25	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 500		µg/l	500	351	25	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 125		µg/l	125	19.2	25	"	"	"	"	"	
64-17-5	Ethanol	< 10000		µg/l	10000	892	25	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*99*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*100*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*95*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*106*			*70-130 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GW-Disposal	413-06F/2012/001	Waste Water	26-Jun-12 11:45	27-Jun-12
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CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													
83-32-9	Acenaphthene	< 5.95		µg/l	5.95	0.964	1	SW846 8270D	02-Jul-12	06-Jul-12	MSL	1215739	
208-96-8	Acenaphthylene	< 5.95		µg/l	5.95	1.20	1	"	"	"	"	"	
62-53-3	Aniline	< 5.95		µg/l	5.95	2.54	1	"	"	"	"	"	
120-12-7	Anthracene	< 5.95		µg/l	5.95	0.881	1	"	"	"	"	"	
103-33-3	Azobenzene/Diphenyldiazine	< 5.95		µg/l	5.95	1.27	1	"	"	"	"	"	
92-87-5	Benzidine	< 5.95		µg/l	5.95	3.54	1	"	"	"	"	"	
56-55-3	Benzo (a) anthracene	< 5.95		µg/l	5.95	0.667	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 5.95		µg/l	5.95	1.00	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 5.95		µg/l	5.95	1.14	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 5.95		µg/l	5.95	1.73	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 5.95		µg/l	5.95	1.81	1	"	"	"	"	"	
65-85-0	Benzoic acid	< 5.95		µg/l	5.95	1.87	1	"	"	"	"	"	
100-51-6	Benzyl alcohol	< 5.95		µg/l	5.95	1.82	1	"	"	"	"	"	
111-91-1	Bis(2-chloroethoxy)methane	< 5.95		µg/l	5.95	1.26	1	"	"	"	"	"	
111-44-4	Bis(2-chloroethyl)ether	< 5.95		µg/l	5.95	1.33	1	"	"	"	"	"	
108-60-1	Bis(2-chloroisopropyl)ether	< 5.95		µg/l	5.95	1.46	1	"	"	"	"	"	
117-81-7	Bis(2-ethylhexyl)phthalate	< 5.95		µg/l	5.95	2.00	1	"	"	"	"	"	
101-55-3	4-Bromophenyl phenyl ether	< 5.95		µg/l	5.95	1.56	1	"	"	"	"	"	
85-68-7	Butyl benzyl phthalate	< 5.95		µg/l	5.95	0.893	1	"	"	"	"	"	
86-74-8	Carbazole	< 5.95		µg/l	5.95	2.40	1	"	"	"	"	"	
59-50-7	4-Chloro-3-methylphenol	< 5.95		µg/l	5.95	1.73	1	"	"	"	"	"	
106-47-8	4-Chloroaniline	< 5.95		µg/l	5.95	1.40	1	"	"	"	"	"	
91-58-7	2-Chloronaphthalene	< 5.95		µg/l	5.95	0.786	1	"	"	"	"	"	
95-57-8	2-Chlorophenol	< 5.95		µg/l	5.95	1.00	1	"	"	"	"	"	
7005-72-3	4-Chlorophenyl phenyl ether	< 5.95		µg/l	5.95	1.17	1	"	"	"	"	"	
218-01-9	Chrysene	< 5.95		µg/l	5.95	0.786	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 5.95		µg/l	5.95	1.56	1	"	"	"	"	"	
132-64-9	Dibenzofuran	< 5.95		µg/l	5.95	0.786	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 5.95		µg/l	5.95	1.01	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 5.95		µg/l	5.95	1.61	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 5.95		µg/l	5.95	0.857	1	"	"	"	"	"	
91-94-1	3,3´-Dichlorobenzidine	< 5.95		µg/l	5.95	2.40	1	"	"	"	"	"	
120-83-2	2,4-Dichlorophenol	< 5.95		µg/l	5.95	1.58	1	"	"	"	"	"	
84-66-2	Diethyl phthalate	< 5.95		µg/l	5.95	1.46	1	"	"	"	"	"	
131-11-3	Dimethyl phthalate	< 5.95		µg/l	5.95	1.01	1	"	"	"	"	"	
105-67-9	2,4-Dimethylphenol	< 5.95		µg/l	5.95	1.25	1	"	"	"	"	"	
84-74-2	Di-n-butyl phthalate	< 5.95		µg/l	5.95	1.60	1	"	"	"	"	"	
534-52-1	4,6-Dinitro-2-methylphenol	< 5.95		µg/l	5.95	2.29	1	"	"	"	"	"	
51-28-5	2,4-Dinitrophenol	< 5.95		µg/l	5.95	3.82	1	"	"	"	"	"	
121-14-2	2,4-Dinitrotoluene	< 5.95		µg/l	5.95	1.52	1	"	"	"	"	"	
606-20-2	2,6-Dinitrotoluene	< 5.95		µg/l	5.95	1.30	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GW-Disposal	413-06F/2012/001	Waste Water	26-Jun-12 11:45	27-Jun-12
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CAS No.	*Analyte(s)*	*Result*	*Flag*	*Units*	**RDL*	*MDL*	*Dilution*	*Method Ref.*	*Prepared*	*Analyzed*	*Analyst*	*Batch*	*Cert.*
Semivolatile Organic Compounds by GCMS													
Semivolatile Organic Compounds													
Prepared by method SW846 3510C													
117-84-0	Di-n-octyl phthalate	< 5.95		µg/l	5.95	1.57	1	SW846 8270D	02-Jul-12	06-Jul-12	MSL	1215739	
206-44-0	Fluoranthene	< 5.95		µg/l	5.95	2.55	1	"	"	"	"	"	
86-73-7	Fluorene	< 5.95		µg/l	5.95	1.08	1	"	"	"	"	"	
118-74-1	Hexachlorobenzene	< 5.95		µg/l	5.95	1.44	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 5.95		µg/l	5.95	1.57	1	"	"	"	"	"	
77-47-4	Hexachlorocyclopentadiene	< 5.95		µg/l	5.95	1.61	1	"	"	"	"	"	
67-72-1	Hexachloroethane	< 5.95		µg/l	5.95	1.33	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 5.95		µg/l	5.95	1.60	1	"	"	"	"	"	
78-59-1	Isophorone	< 5.95		µg/l	5.95	1.27	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 5.95		µg/l	5.95	1.52	1	"	"	"	"	"	
95-48-7	2-Methylphenol	< 5.95		µg/l	5.95	1.01	1	"	"	"	"	"	
108-39-4, 106-44-5	3 & 4-Methylphenol	< 11.9		µg/l	11.9	1.30	1	"	"	"	"	"	
91-20-3	Naphthalene	< 5.95		µg/l	5.95	0.893	1	"	"	"	"	"	
88-74-4	2-Nitroaniline	< 5.95		µg/l	5.95	1.26	1	"	"	"	"	"	
99-09-2	3-Nitroaniline	< 5.95		µg/l	5.95	1.89	1	"	"	"	"	"	
100-01-6	4-Nitroaniline	< 23.8		µg/l	23.8	5.44	1	"	"	"	"	"	
98-95-3	Nitrobenzene	< 5.95		µg/l	5.95	1.14	1	"	"	"	"	"	
88-75-5	2-Nitrophenol	< 5.95		µg/l	5.95	1.56	1	"	"	"	"	"	
100-02-7	4-Nitrophenol	< 23.8		µg/l	23.8	3.06	1	"	"	"	"	"	
62-75-9	N-Nitrosodimethylamine	< 5.95		µg/l	5.95	2.49	1	"	"	"	"	"	
621-64-7	N-Nitrosodi-n-propylamine	< 5.95		µg/l	5.95	1.32	1	"	"	"	"	"	
86-30-6	N-Nitrosodiphenylamine	< 5.95		µg/l	5.95	1.36	1	"	"	"	"	"	
87-86-5	Pentachlorophenol	< 23.8		µg/l	23.8	2.12	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 5.95		µg/l	5.95	0.714	1	"	"	"	"	"	
108-95-2	Phenol	< 5.95		µg/l	5.95	1.25	1	"	"	"	"	"	
129-00-0	Pyrene	< 5.95		µg/l	5.95	2.94	1	"	"	"	"	"	
110-86-1	Pyridine	< 5.95		µg/l	5.95	2.18	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 5.95		µg/l	5.95	1.18	1	"	"	"	"	"	
90-12-0	1-Methylnaphthalene	< 5.95		µg/l	5.95	1.31	1	"	"	"	"	"	
95-95-4	2,4,5-Trichlorophenol	< 5.95		µg/l	5.95	1.75	1	"	"	"	"	"	
88-06-2	2,4,6-Trichlorophenol	< 5.95		µg/l	5.95	1.15	1	"	"	"	"	"	
82-68-8	Pentachloronitrobenzene	< 5.95		µg/l	5.95	1.92	1	"	"	"	"	"	
95-94-3	1,2,4,5-Tetrachlorobenzene	< 5.95		µg/l	5.95	0.821	1	"	"	"	"	"	
Surrogate recoveries:													
321-60-8	*2-Fluorobiphenyl*	*52*			*30-130 %*			"	"	"	"	"	
367-12-4	*2-Fluorophenol*	*29*			*15-110 %*			"	"	"	"	"	
4165-60-0	*Nitrobenzene-d5*	*31*			*30-130 %*			"	"	"	"	"	
4165-62-2	*Phenol-d5*	*23*			*15-110 %*			"	"	"	"	"	
1718-51-0	*Terphenyl-dl4*	*84*			*30-130 %*			"	"	"	"	"	
118-79-6	*2,4,6-Tribromophenol*	*60*			*15-110 %*			"	"	"	"	"	
Semivolatile Organic Compounds by GC													
Organochlorine Pesticides													
Prepared by method SW846 3510C													

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Organochlorine Pesticides													
Prepared by method SW846 3510C													
319-84-6	alpha-BHC	< 0.010		µg/l	0.010	0.007	1	SW846 8081B	28-Jun-12	02-Jul-12	TG	1215484	
319-85-7	beta-BHC	< 0.010		µg/l	0.010	0.007	1	"	"	"	"	"	
319-86-8	delta-BHC	< 0.010		µg/l	0.010	0.008	1	"	"	"	"	"	
58-89-9	gamma-BHC (Lindane)	< 0.010		µg/l	0.010	0.008	1	"	"	"	"	"	
76-44-8	Heptachlor	< 0.010		µg/l	0.010	0.009	1	"	"	"	"	"	
309-00-2	Aldrin	< 0.010		µg/l	0.010	0.006	1	"	"	"	"	"	
1024-57-3	Heptachlor epoxide	< 0.010		µg/l	0.010	0.006	1	"	"	"	"	"	
959-98-8	Endosulfan I	< 0.010		µg/l	0.010	0.008	1	"	"	"	"	"	
60-57-1	Dieldrin	< 0.010		µg/l	0.010	0.007	1	"	"	"	"	"	
72-55-9	4,4'-DDE (p,p')	< 0.010		µg/l	0.010	0.007	1	"	"	"	"	"	
72-20-8	Endrin	< 0.020		µg/l	0.020	0.017	1	"	"	"	"	"	
33213-65-9	Endosulfan II	< 0.020		µg/l	0.020	0.011	1	"	"	"	"	"	
72-54-8	4,4'-DDD (p,p')	< 0.020		µg/l	0.020	0.008	1	"	"	"	"	"	
1031-07-8	Endosulfan sulfate	< 0.020		µg/l	0.020	0.013	1	"	"	"	"	"	
50-29-3	4,4'-DDT (p,p')	< 0.020		µg/l	0.020	0.008	1	"	"	"	"	"	
72-43-5	Methoxychlor	< 0.020		µg/l	0.020	0.010	1	"	"	"	"	"	
53494-70-5	Endrin ketone	< 0.020		µg/l	0.020	0.012	1	"	"	"	"	"	
7421-93-4	Endrin aldehyde	< 0.020		µg/l	0.020	0.010	1	"	"	"	"	"	
5103-71-9	alpha-Chlordane	< 0.010		µg/l	0.010	0.008	1	"	"	"	"	"	
5566-34-7	gamma-Chlordane	< 0.010		µg/l	0.010	0.008	1	"	"	"	"	"	
8001-35-2	Toxaphene	< 0.250		µg/l	0.250	0.108	1	"	"	"	"	"	
57-74-9	Chlordane	< 0.032		µg/l	0.032	0.022	1	"	"	"	"	"	
15972-60-8	Alachlor	< 0.010		µg/l	0.010	0.006	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*54*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*86*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr)*	*54*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*48*			*30-150 %*			"	"	"	"	"	
Polychlorinated Biphenyls													
Prepared by method SW846 3510C													
12674-11-2	Aroclor-1016	< 0.208		µg/l	0.208	0.00896	1	SW846 8082A	28-Jun-12	02-Jul-12	IMR	1215479	
11104-28-2	Aroclor-1221	< 0.208		µg/l	0.208	0.0149	1	"	"	"	"	"	
11141-16-5	Aroclor-1232	< 0.208		µg/l	0.208	0.0140	1	"	"	"	"	"	
53469-21-9	Aroclor-1242	< 0.208		µg/l	0.208	0.00760	1	"	"	"	"	"	
12672-29-6	Aroclor-1248	< 0.208		µg/l	0.208	0.0118	1	"	"	"	"	"	
11097-69-1	Aroclor-1254	< 0.208		µg/l	0.208	0.0103	1	"	"	"	"	"	
11096-82-5	Aroclor-1260	< 0.208		µg/l	0.208	0.00604	1	"	"	"	"	"	
37324-23-5	Aroclor-1262	< 0.208		µg/l	0.208	0.00906	1	"	"	"	"	"	
11100-14-4	Aroclor-1268	< 0.208		µg/l	0.208	0.00990	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*45*			*30-150 %*			"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GW-Disposal	413-06F/2012/001	Waste Water	26-Jun-12 11:45	27-Jun-12
SB51831-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Semivolatile Organic Compounds by GC													
Polychlorinated Biphenyls													
Prepared by method SW846 3510C													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*50*			*30-150 %*			SW846 8082A	28-Jun-12	02-Jul-12	IMR	1215479	
2051-24-3	*Decachlorobiphenyl (Sr)*	*65*			*30-150 %*			"	"	"	"	"	
2051-24-3	*Decachlorobiphenyl (Sr) [2C]*	*65*			*30-150 %*			"	"	"	"	"	
Chlorinated Herbicides													
Prepared by method SW846 3510C										Methylation date: 03-Jul-12			
93-76-5	2,4,5-T	< 0.120		µg/l	0.120	0.0723	1	SW846 8151A	03-Jul-12	10-Jul-12	TG	1215870	
93-72-1	2,4,5-TP (Silvex)	< 0.120		µg/l	0.120	0.0687	1	"	"	"	"	"	
94-75-7	2,4-D	< 0.120		µg/l	0.120	0.0940	1	"	"	"	"	"	
94-82-6	2,4-DB	< 0.120		µg/l	0.120	0.0566	1	"	"	"	"	"	
75-99-0	Dalapon	< 0.120		µg/l	0.120	0.0976	1	"	"	"	"	"	
1918-00-9	Dicamba	< 0.120		µg/l	0.120	0.0651	1	"	"	"	"	"	
120-36-5	Dichlorprop	< 0.120		µg/l	0.120	0.0723	1	"	"	"	"	"	
88-85-7	Dinoseb	< 0.120		µg/l	0.120	0.0711	1	"	"	"	"	"	
94-74-6	MCPA	< 60.2		µg/l	60.2	12.1	1	"	"	"	"	"	
94-81-5	MCPB	< 60.2		µg/l	60.2	12.7	1	"	"	"	"	"	
93-65-2	MCPP	< 60.2		µg/l	60.2	13.7	1	"	"	"	"	"	
Surrogate recoveries:													
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr)*	*55*			*30-150 %*			"	"	"	"	"	
10386-84-2	*4,4-DB-Octafluorobiphenyl (Sr) [2C]*	*60*			*30-150 %*			"	"	"	"	"	
Extractable Petroleum Hydrocarbons													
EPH Aliphatic/Aromatic Ranges													
Prepared by method SW846 3510C													
	C9-C18 Aliphatic Hydrocarbons	< 105		µg/l	105	26.1	1	MADEP EPH 5/2004 R	02-Jul-12	09-Jul-12	MP	1215735	
	C19-C36 Aliphatic Hydrocarbons	< 105		µg/l	105	82.3	1	"	"	"	"	"	
	C11-C22 Aromatic Hydrocarbons	< 105		µg/l	105	57.4	1	"	"	"	"	"	
	Unadjusted C11-C22 Aromatic Hydrocarbons	< 105		µg/l	105	57.4	1	"	"	"	"	"	
	Total Petroleum Hydrocarbons	< 105		µg/l	105	105	1	"	"	"	"	"	
	Unadjusted Total Petroleum Hydrocarbons	< 105		µg/l	105	105	1	"	"	"	"	"	
EPH Target PAH Analytes													
Prepared by method SW846 3510C													
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.125	1	"	"	"	"	"	
91-57-6	2-Methylnaphthalene	< 1.00		µg/l	1.00	0.167	1	"	"	"	"	"	
208-96-8	Acenaphthylene	< 1.00		µg/l	1.00	0.172	1	"	"	"	"	"	
83-32-9	Acenaphthene	< 1.00		µg/l	1.00	0.111	1	"	"	"	"	"	
86-73-7	Fluorene	< 1.00		µg/l	1.00	0.118	1	"	"	"	"	"	
85-01-8	Phenanthrene	< 1.00		µg/l	1.00	0.129	1	"	"	"	"	"	
120-12-7	Anthracene	< 1.00		µg/l	1.00	0.121	1	"	"	"	"	"	
206-44-0	Fluoranthene	< 1.00		µg/l	1.00	0.0883	1	"	"	"	"	"	
129-00-0	Pyrene	< 1.00		µg/l	1.00	0.142	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
GW-Disposal	413-06F/2012/001	Waste Water	26-Jun-12 11:45	27-Jun-12
SB51831-01				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Extractable Petroleum Hydrocarbons													
EPH Target PAH Analytes													
Prepared by method SW846 3510C													
56-55-3	Benzo (a) anthracene	< 1.00		µg/l	1.00	0.111	1	MADEP EPH 5/2004 R	02-Jul-12	09-Jul-12	MP	1215735	
218-01-9	Chrysene	< 1.00		µg/l	1.00	0.126	1	"	"	"	"	"	
205-99-2	Benzo (b) fluoranthene	< 1.00		µg/l	1.00	0.221	1	"	"	"	"	"	
207-08-9	Benzo (k) fluoranthene	< 1.00		µg/l	1.00	0.269	1	"	"	"	"	"	
50-32-8	Benzo (a) pyrene	< 0.200		µg/l	0.200	0.200	1	"	"	"	"	"	
193-39-5	Indeno (1,2,3-cd) pyrene	< 0.500		µg/l	0.500	0.278	1	"	"	"	"	"	
53-70-3	Dibenzo (a,h) anthracene	< 0.500		µg/l	0.500	0.231	1	"	"	"	"	"	
191-24-2	Benzo (g,h,i) perylene	< 1.00		µg/l	1.00	0.195	1	"	"	"	"	"	
Surrogate recoveries:													
3386-33-2	*1-Chlorooctadecane*	*73*			*40-140 %*			"	"	"	"	"	
84-15-1	*Ortho-Terphenyl*	*63*			*40-140 %*			"	"	"	"	"	
321-60-8	*2-Fluorobiphenyl*	*44*			*40-140 %*			"	"	"	"	"	
Total Metals by EPA 200/6000 Series Methods													
	Preservation	**Field Preserved**		N/A			1	EPA 200/6000 methods			ZJG	1215522	
Total Metals by EPA 6000/7000 Series Methods													
7440-22-4	Silver	< 0.0050		mg/l	0.0050	0.0020	1	SW846 6010C	05-Jul-12	09-Jul-12	LR	1215916	
7440-38-2	Arsenic	< 0.0040		mg/l	0.0040	0.0032	1	"	"	"	"	"	
7440-39-3	Barium	**0.0674**		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7440-43-9	Cadmium	< 0.0025		mg/l	0.0025	0.0001	1	"	"	"	"	"	
7440-47-3	Chromium	< 0.0050		mg/l	0.0050	0.0034	1	"	"	"	"	"	
7439-89-6	Iron	**0.107**		mg/l	0.0150	0.0046	1	"	"	02-Aug-12	"	"	
7439-95-4	Magnesium	**36.6**		mg/l	0.0100	0.0033	1	"	"	09-Jul-12	"	"	
7439-96-5	Manganese	**4.30**		mg/l	0.0020	0.0006	1	"	"	"	"	"	
7439-92-1	Lead	< 0.0075		mg/l	0.0075	0.0045	1	"	"	"	"	"	
7782-49-2	Selenium	< 0.0150		mg/l	0.0150	0.0024	1	"	"	"	"	"	
Total Metals by EPA 200 Series Methods													
7439-97-6	Mercury	< 0.00020		mg/l	0.00020	0.00007	1	EPA 245.1/7470A	05-Jul-12	06-Jul-12	JLM	1215917	X
General Chemistry Parameters													
	Flashpoint	**>150**		°F			1	SW846 1010	28-Jun-12	28-Jun-12	VK	1215554	
	Specific Conductance (EC)	**1,300**		uS/cm	10.0	10.0	1	SM2510B	02-Jul-12	02-Jul-12	KK	1215746	X
	pH	**7.00**	pH	pH Units			1	ASTM D 1293-99B	27-Jun-12 14:00	27-Jun-12 14:00	SPW	1215382	X
Reactivity Cyanide/Sulfide													
Prepared by method General Preparation													
	Reactivity	**Nonreactive**		mg/l			1	SW846 Ch. 7.3	02-Jul-12	02-Jul-12	BD	1215795	
	Reactive Cyanide	< 25.0		mg/l	25.0	2.50	1	"	"	"	"	"	
	Reactive Sulfide	< 50.0		mg/l	50.0	5.00	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-1	413-06F/2012/001	Trip Blank	26-Jun-12 00:00	27-Jun-12
SB51831-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00	0.65	1	SW846 8260C	05-Jul-12	06-Jul-12	GMA	1216024	
67-64-1	Acetone	< 10.0		µg/l	10.0	2.56	1	"	"	"	"	"	
107-13-1	Acrylonitrile	< 0.50		µg/l	0.50	0.46	1	"	"	"	"	"	
71-43-2	Benzene	< 1.00		µg/l	1.00	0.67	1	"	"	"	"	"	
108-86-1	Bromobenzene	< 1.00		µg/l	1.00	0.72	1	"	"	"	"	"	
74-97-5	Bromochloromethane	< 1.00		µg/l	1.00	0.71	1	"	"	"	"	"	
75-27-4	Bromodichloromethane	< 0.50		µg/l	0.50	0.48	1	"	"	"	"	"	
75-25-2	Bromoform	< 1.00		µg/l	1.00	0.60	1	"	"	"	"	"	
74-83-9	Bromomethane	< 2.00		µg/l	2.00	1.14	1	"	"	"	"	"	
78-93-3	2-Butanone (MEK)	< 10.0		µg/l	10.0	1.73	1	"	"	"	"	"	
104-51-8	n-Butylbenzene	< 1.00		µg/l	1.00	0.56	1	"	"	"	"	"	
135-98-8	sec-Butylbenzene	< 1.00		µg/l	1.00	0.82	1	"	"	"	"	"	
98-06-6	tert-Butylbenzene	< 1.00		µg/l	1.00	0.74	1	"	"	"	"	"	
75-15-0	Carbon disulfide	< 2.00		µg/l	2.00	0.63	1	"	"	"	"	"	
56-23-5	Carbon tetrachloride	< 1.00		µg/l	1.00	0.55	1	"	"	"	"	"	
108-90-7	Chlorobenzene	< 1.00		µg/l	1.00	0.65	1	"	"	"	"	"	
75-00-3	Chloroethane	< 2.00		µg/l	2.00	1.03	1	"	"	"	"	"	
67-66-3	Chloroform	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	
74-87-3	Chloromethane	< 2.00		µg/l	2.00	1.47	1	"	"	"	"	"	
95-49-8	2-Chlorotoluene	< 1.00		µg/l	1.00	0.79	1	"	"	"	"	"	
106-43-4	4-Chlorotoluene	< 1.00		µg/l	1.00	0.73	1	"	"	"	"	"	
96-12-8	1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00	0.93	1	"	"	"	"	"	
124-48-1	Dibromochloromethane	< 0.50		µg/l	0.50	0.29	1	"	"	"	"	"	
106-93-4	1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50	0.33	1	"	"	"	"	"	
74-95-3	Dibromomethane	< 1.00		µg/l	1.00	0.67	1	"	"	"	"	"	
95-50-1	1,2-Dichlorobenzene	< 1.00		µg/l	1.00	0.67	1	"	"	"	"	"	
541-73-1	1,3-Dichlorobenzene	< 1.00		µg/l	1.00	0.71	1	"	"	"	"	"	
106-46-7	1,4-Dichlorobenzene	< 1.00		µg/l	1.00	0.62	1	"	"	"	"	"	
75-71-8	Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00	0.45	1	"	"	"	"	"	
75-34-3	1,1-Dichloroethane	< 1.00		µg/l	1.00	0.68	1	"	"	"	"	"	
107-06-2	1,2-Dichloroethane	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	
75-35-4	1,1-Dichloroethene	< 1.00		µg/l	1.00	0.49	1	"	"	"	"	"	
156-59-2	cis-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.72	1	"	"	"	"	"	
156-60-5	trans-1,2-Dichloroethene	< 1.00		µg/l	1.00	0.68	1	"	"	"	"	"	
78-87-5	1,2-Dichloropropane	< 1.00		µg/l	1.00	0.71	1	"	"	"	"	"	
142-28-9	1,3-Dichloropropane	< 1.00		µg/l	1.00	0.81	1	"	"	"	"	"	
594-20-7	2,2-Dichloropropane	< 1.00		µg/l	1.00	0.60	1	"	"	"	"	"	
563-58-6	1,1-Dichloropropene	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	
10061-01-5	cis-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.25	1	"	"	"	"	"	
10061-02-6	trans-1,3-Dichloropropene	< 0.50		µg/l	0.50	0.50	1	"	"	"	"	"	
100-41-4	Ethylbenzene	< 1.00		µg/l	1.00	0.73	1	"	"	"	"	"	
87-68-3	Hexachlorobutadiene	< 0.50		µg/l	0.50	0.45	1	"	"	"	"	"	
591-78-6	2-Hexanone (MBK)	< 10.0		µg/l	10.0	0.54	1	"	"	"	"	"	

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
TB-1	413-06F/2012/001	Trip Blank	26-Jun-12 00:00	27-Jun-12
SB51831-02				

CAS No.	Analyte(s)	Result	Flag	Units	*RDL	MDL	Dilution	Method Ref.	Prepared	Analyzed	Analyst	Batch	Cert.
Volatile Organic Compounds													
Volatile Organic Compounds													
Prepared by method SW846 5030 Water MS													
98-82-8	Isopropylbenzene	< 1.00		µg/l	1.00	0.62	1	SW846 8260C	05-Jul-12	06-Jul-12	GMA	1216024	
99-87-6	4-Isopropyltoluene	< 1.00		µg/l	1.00	0.61	1	"	"	"	"	"	
1634-04-4	Methyl tert-butyl ether	< 1.00		µg/l	1.00	0.65	1	"	"	"	"	"	
108-10-1	4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0	0.93	1	"	"	"	"	"	
75-09-2	Methylene chloride	< 2.00		µg/l	2.00	0.69	1	"	"	"	"	"	
91-20-3	Naphthalene	< 1.00		µg/l	1.00	0.33	1	"	"	"	"	"	
103-65-1	n-Propylbenzene	< 1.00		µg/l	1.00	0.76	1	"	"	"	"	"	
100-42-5	Styrene	< 1.00		µg/l	1.00	0.62	1	"	"	"	"	"	
630-20-6	1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00	0.63	1	"	"	"	"	"	
79-34-5	1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50	0.35	1	"	"	"	"	"	
127-18-4	Tetrachloroethene	< 1.00		µg/l	1.00	0.74	1	"	"	"	"	"	
108-88-3	Toluene	< 1.00		µg/l	1.00	0.81	1	"	"	"	"	"	
87-61-6	1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00	0.38	1	"	"	"	"	"	
120-82-1	1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00	0.36	1	"	"	"	"	"	
108-70-3	1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	
71-55-6	1,1,1-Trichloroethane	< 1.00		µg/l	1.00	0.58	1	"	"	"	"	"	
79-00-5	1,1,2-Trichloroethane	< 1.00		µg/l	1.00	0.64	1	"	"	"	"	"	
79-01-6	Trichloroethene	< 1.00		µg/l	1.00	0.76	1	"	"	"	"	"	
75-69-4	Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00	0.63	1	"	"	"	"	"	
96-18-4	1,2,3-Trichloropropane	< 1.00		µg/l	1.00	0.74	1	"	"	"	"	"	
95-63-6	1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00	0.76	1	"	"	"	"	"	
108-67-8	1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00	0.74	1	"	"	"	"	"	
75-01-4	Vinyl chloride	< 1.00		µg/l	1.00	0.81	1	"	"	"	"	"	
179601-23-1	m,p-Xylene	< 2.00		µg/l	2.00	1.64	1	"	"	"	"	"	
95-47-6	o-Xylene	< 1.00		µg/l	1.00	0.88	1	"	"	"	"	"	
109-99-9	Tetrahydrofuran	< 2.00		µg/l	2.00	1.44	1	"	"	"	"	"	
60-29-7	Ethyl ether	< 1.00		µg/l	1.00	0.69	1	"	"	"	"	"	
994-05-8	Tert-amyl methyl ether	< 1.00		µg/l	1.00	0.72	1	"	"	"	"	"	
637-92-3	Ethyl tert-butyl ether	< 1.00		µg/l	1.00	0.78	1	"	"	"	"	"	
108-20-3	Di-isopropyl ether	< 1.00		µg/l	1.00	0.73	1	"	"	"	"	"	
75-65-0	Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0	8.64	1	"	"	"	"	"	
123-91-1	1,4-Dioxane	< 20.0		µg/l	20.0	14.0	1	"	"	"	"	"	
110-57-6	trans-1,4-Dichloro-2-buten e	< 5.00		µg/l	5.00	0.77	1	"	"	"	"	"	
64-17-5	Ethanol	< 400		µg/l	400	35.7	1	"	"	"	"	"	
Surrogate recoveries:													
460-00-4	*4-Bromofluorobenzene*	*101*			*70-130 %*			"	"	"	"	"	
2037-26-5	*Toluene-d8*	*103*			*70-130 %*			"	"	"	"	"	
17060-07-0	*1,2-Dichloroethane-d4*	*117*			*70-130 %*			"	"	"	"	"	
1868-53-7	*Dibromofluoromethane*	*105*			*70-130 %*			"	"	"	"	"	

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216024 - SW846 5030 Water MS										
Blank (1216024-BLK1)					Prepared & Analyzed: 05-Jul-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216024 - SW846 5030 Water MS										
Blank (1216024-BLK1)					Prepared & Analyzed: 05-Jul-12					
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*49.1*		µg/l		*50.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*51.5*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*58.1*		µg/l		*50.0*		*116*	*70-130*		
Surrogate: Dibromofluoromethane	*53.4*		µg/l		*50.0*		*107*	*70-130*		
LCS (1216024-BS1)					Prepared & Analyzed: 05-Jul-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**23.7**		µg/l		20.0		119	70-130		
Acetone	**24.4**		µg/l		20.0		122	70-130		
Acrylonitrile	**23.0**		µg/l		20.0		115	70-130		
Benzene	**20.0**		µg/l		20.0		100	70-130		
Bromobenzene	**20.8**		µg/l		20.0		104	70-130		
Bromochloromethane	**20.6**		µg/l		20.0		103	70-130		
Bromodichloromethane	**23.6**		µg/l		20.0		118	70-130		
Bromoform	**21.6**		µg/l		20.0		108	70-130		
Bromomethane	**25.1**		µg/l		20.0		126	70-130		
2-Butanone (MEK)	**24.6**		µg/l		20.0		123	70-130		
n-Butylbenzene	**16.9**		µg/l		20.0		84	70-130		
sec-Butylbenzene	**19.7**		µg/l		20.0		98	70-130		
tert-Butylbenzene	**19.8**		µg/l		20.0		99	70-130		
Carbon disulfide	**25.1**		µg/l		20.0		125	70-130		
Carbon tetrachloride	**24.7**		µg/l		20.0		124	70-130		
Chlorobenzene	**19.0**		µg/l		20.0		95	70-130		
Chloroethane	**21.8**		µg/l		20.0		109	70-130		
Chloroform	**21.4**		µg/l		20.0		107	70-130		
Chloromethane	**19.3**		µg/l		20.0		97	70-130		
2-Chlorotoluene	**20.8**		µg/l		20.0		104	70-130		
4-Chlorotoluene	**22.0**		µg/l		20.0		110	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216024 - SW846 5030 Water MS										
LCS (1216024-BS1)						Prepared & Analyzed: 05-Jul-12				
1,2-Dibromo-3-chloropropane	**19.3**		µg/l		20.0		97	70-130		
Dibromochloromethane	**23.0**		µg/l		20.0		115	70-130		
1,2-Dibromoethane (EDB)	**22.8**		µg/l		20.0		114	70-130		
Dibromomethane	**21.6**		µg/l		20.0		108	70-130		
1,2-Dichlorobenzene	**19.8**		µg/l		20.0		99	70-130		
1,3-Dichlorobenzene	**21.2**		µg/l		20.0		106	70-130		
1,4-Dichlorobenzene	**20.2**		µg/l		20.0		101	70-130		
Dichlorodifluoromethane (Freon12)	**21.7**		µg/l		20.0		108	70-130		
1,1-Dichloroethane	**24.1**		µg/l		20.0		121	70-130		
1,2-Dichloroethane	**22.6**		µg/l		20.0		113	70-130		
1,1-Dichloroethene	**24.8**		µg/l		20.0		124	70-130		
cis-1,2-Dichloroethene	**21.5**		µg/l		20.0		107	70-130		
trans-1,2-Dichloroethene	**24.6**		µg/l		20.0		123	70-130		
1,2-Dichloropropane	**18.6**		µg/l		20.0		93	70-130		
1,3-Dichloropropane	**20.2**		µg/l		20.0		101	70-130		
2,2-Dichloropropane	**21.0**		µg/l		20.0		105	70-130		
1,1-Dichloropropene	**22.2**		µg/l		20.0		111	70-130		
cis-1,3-Dichloropropene	**20.5**		µg/l		20.0		102	70-130		
trans-1,3-Dichloropropene	**21.1**		µg/l		20.0		106	70-130		
Ethylbenzene	**21.2**		µg/l		20.0		106	70-130		
Hexachlorobutadiene	**22.9**		µg/l		20.0		114	70-130		
2-Hexanone (MBK)	**20.0**		µg/l		20.0		100	70-130		
Isopropylbenzene	**21.0**		µg/l		20.0		105	70-130		
4-Isopropyltoluene	**21.6**		µg/l		20.0		108	70-130		
Methyl tert-butyl ether	**21.0**		µg/l		20.0		105	70-130		
4-Methyl-2-pentanone (MIBK)	**20.7**		µg/l		20.0		103	70-130		
Methylene chloride	**23.3**		µg/l		20.0		116	70-130		
Naphthalene	**19.4**		µg/l		20.0		97	70-130		
n-Propylbenzene	**19.3**		µg/l		20.0		96	70-130		
Styrene	**22.0**		µg/l		20.0		110	70-130		
1,1,1,2-Tetrachloroethane	**23.0**		µg/l		20.0		115	70-130		
1,1,2,2-Tetrachloroethane	**19.4**		µg/l		20.0		97	70-130		
Tetrachloroethene	**21.5**		µg/l		20.0		107	70-130		
Toluene	**19.8**		µg/l		20.0		99	70-130		
1,2,3-Trichlorobenzene	**18.6**		µg/l		20.0		93	70-130		
1,2,4-Trichlorobenzene	**18.1**		µg/l		20.0		91	70-130		
1,3,5-Trichlorobenzene	**21.0**		µg/l		20.0		105	70-130		
1,1,1-Trichloroethane	**22.8**		µg/l		20.0		114	70-130		
1,1,2-Trichloroethane	**20.8**		µg/l		20.0		104	70-130		
Trichloroethene	**21.2**		µg/l		20.0		106	70-130		
Trichlorofluoromethane (Freon 11)	**25.0**		µg/l		20.0		125	70-130		
1,2,3-Trichloropropane	**20.1**		µg/l		20.0		101	70-130		
1,2,4-Trimethylbenzene	**18.2**		µg/l		20.0		91	70-130		
1,3,5-Trimethylbenzene	**19.0**		µg/l		20.0		95	70-130		
Vinyl chloride	**22.6**		µg/l		20.0		113	70-130		
m,p-Xylene	**43.0**		µg/l		40.0		107	70-130		
o-Xylene	**21.3**		µg/l		20.0		106	70-130		
Tetrahydrofuran	**19.1**		µg/l		20.0		95	70-130		
Ethyl ether	**23.3**		µg/l		20.0		116	70-130		
Tert-amyl methyl ether	**16.2**		µg/l		20.0		81	70-130		
Ethyl tert-butyl ether	**17.3**		µg/l		20.0		86	70-130		
Di-isopropyl ether	**19.7**		µg/l		20.0		99	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216024 - SW846 5030 Water MS										
LCS (1216024-BS1)						Prepared & Analyzed: 05-Jul-12				
Tert-Butanol / butyl alcohol	**193**		µg/l		200		96	70-130		
1,4-Dioxane	**208**		µg/l		200		104	70-130		
trans-1,4-Dichloro-2-butene	**18.4**		µg/l		20.0		92	70-130		
Ethanol	**448**		µg/l		400		112	70-130		
Surrogate: 4-Bromofluorobenzene	*52.3*		µg/l		*50.0*		*105*	*70-130*		
Surrogate: Toluene-d8	*51.6*		µg/l		*50.0*		*103*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*57.4*		µg/l		*50.0*		*115*	*70-130*		
Surrogate: Dibromofluoromethane	*54.4*		µg/l		*50.0*		*109*	*70-130*		
LCS Dup (1216024-BSD1)						Prepared & Analyzed: 05-Jul-12				
1,1,2-Trichlorotrifluoroethane (Freon 113)	**24.8**		µg/l		20.0		124	70-130	4	25
Acetone	**23.0**		µg/l		20.0		115	70-130	6	50
Acrylonitrile	**20.6**		µg/l		20.0		103	70-130	11	25
Benzene	**19.9**		µg/l		20.0		100	70-130	0.6	25
Bromobenzene	**20.4**		µg/l		20.0		102	70-130	2	25
Bromochloromethane	**20.8**		µg/l		20.0		104	70-130	1	25
Bromodichloromethane	**23.7**		µg/l		20.0		118	70-130	0.1	25
Bromoform	**20.9**		µg/l		20.0		104	70-130	3	25
Bromomethane	**25.2**		µg/l		20.0		126	70-130	0.4	50
2-Butanone (MEK)	**21.5**		µg/l		20.0		107	70-130	14	50
n-Butylbenzene	**17.1**		µg/l		20.0		86	70-130	1	25
sec-Butylbenzene	**19.4**		µg/l		20.0		97	70-130	1	25
tert-Butylbenzene	**19.9**		µg/l		20.0		100	70-130	0.6	25
Carbon disulfide	**24.9**		µg/l		20.0		125	70-130	0.6	25
Carbon tetrachloride	**25.2**		µg/l		20.0		126	70-130	2	25
Chlorobenzene	**19.0**		µg/l		20.0		95	70-130	0.3	25
Chloroethane	**23.0**		µg/l		20.0		115	70-130	5	50
Chloroform	**21.0**		µg/l		20.0		105	70-130	2	25
Chloromethane	**20.2**		µg/l		20.0		101	70-130	5	25
2-Chlorotoluene	**20.9**		µg/l		20.0		105	70-130	0.8	25
4-Chlorotoluene	**21.7**		µg/l		20.0		109	70-130	2	25
1,2-Dibromo-3-chloropropane	**19.0**		µg/l		20.0		95	70-130	2	25
Dibromochloromethane	**22.3**		µg/l		20.0		111	70-130	3	50
1,2-Dibromoethane (EDB)	**21.9**		µg/l		20.0		110	70-130	4	25
Dibromomethane	**21.5**		µg/l		20.0		108	70-130	0.3	25
1,2-Dichlorobenzene	**19.7**		µg/l		20.0		99	70-130	0.2	25
1,3-Dichlorobenzene	**21.2**		µg/l		20.0		106	70-130	0.4	25
1,4-Dichlorobenzene	**20.4**		µg/l		20.0		102	70-130	1	25
Dichlorodifluoromethane (Freon12)	**22.1**		µg/l		20.0		110	70-130	2	50
1,1-Dichloroethane	**24.3**		µg/l		20.0		122	70-130	0.7	25
1,2-Dichloroethane	**22.1**		µg/l		20.0		111	70-130	2	25
1,1-Dichloroethene	**24.8**		µg/l		20.0		124	70-130	0.3	25
cis-1,2-Dichloroethene	**21.3**		µg/l		20.0		107	70-130	0.7	25
trans-1,2-Dichloroethene	**24.9**		µg/l		20.0		125	70-130	1	25
1,2-Dichloropropane	**19.1**		µg/l		20.0		95	70-130	2	25
1,3-Dichloropropane	**20.0**		µg/l		20.0		100	70-130	1	25
2,2-Dichloropropane	**20.9**		µg/l		20.0		104	70-130	0.3	25
1,1-Dichloropropene	**22.7**		µg/l		20.0		114	70-130	2	25
cis-1,3-Dichloropropene	**19.9**		µg/l		20.0		99	70-130	3	25
trans-1,3-Dichloropropene	**19.9**		µg/l		20.0		99	70-130	6	25
Ethylbenzene	**20.8**		µg/l		20.0		104	70-130	2	25
Hexachlorobutadiene	**23.4**		µg/l		20.0		117	70-130	2	50

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216024 - SW846 5030 Water MS										
LCS Dup (1216024-BSD1)					Prepared & Analyzed: 05-Jul-12					
2-Hexanone (MBK)	**18.5**		µg/l		20.0		93	70-130	7	25
Isopropylbenzene	**20.8**		µg/l		20.0		104	70-130	1	25
4-Isopropyltoluene	**21.9**		µg/l		20.0		110	70-130	1	25
Methyl tert-butyl ether	**21.2**		µg/l		20.0		106	70-130	0.8	25
4-Methyl-2-pentanone (MIBK)	**19.5**		µg/l		20.0		97	70-130	6	50
Methylene chloride	**23.4**		µg/l		20.0		117	70-130	0.7	25
Naphthalene	**19.4**		µg/l		20.0		97	70-130	0.1	25
n-Propylbenzene	**18.4**		µg/l		20.0		92	70-130	4	25
Styrene	**21.6**		µg/l		20.0		108	70-130	2	25
1,1,1,2-Tetrachloroethane	**23.3**		µg/l		20.0		116	70-130	1	25
1,1,2,2-Tetrachloroethane	**18.8**		µg/l		20.0		94	70-130	3	25
Tetrachloroethene	**21.6**		µg/l		20.0		108	70-130	0.3	25
Toluene	**19.9**		µg/l		20.0		100	70-130	0.5	25
1,2,3-Trichlorobenzene	**18.6**		µg/l		20.0		93	70-130	0	25
1,2,4-Trichlorobenzene	**18.0**		µg/l		20.0		90	70-130	0.8	25
1,3,5-Trichlorobenzene	**21.2**		µg/l		20.0		106	70-130	1	25
1,1,1-Trichloroethane	**22.8**		µg/l		20.0		114	70-130	0.04	25
1,1,2-Trichloroethane	**19.0**		µg/l		20.0		95	70-130	9	25
Trichloroethene	**21.7**		µg/l		20.0		108	70-130	2	25
Trichlorofluoromethane (Freon 11)	**25.7**		µg/l		20.0		128	70-130	3	50
1,2,3-Trichloropropane	**19.3**		µg/l		20.0		96	70-130	4	25
1,2,4-Trimethylbenzene	**17.9**		µg/l		20.0		89	70-130	2	25
1,3,5-Trimethylbenzene	**18.5**		µg/l		20.0		92	70-130	3	25
Vinyl chloride	**18.0**		µg/l		20.0		90	70-130	23	25
m,p-Xylene	**42.4**		µg/l		40.0		106	70-130	1	25
o-Xylene	**21.1**		µg/l		20.0		106	70-130	0.8	25
Tetrahydrofuran	**19.3**		µg/l		20.0		96	70-130	1	25
Ethyl ether	**22.9**		µg/l		20.0		115	70-130	2	50
Tert-amyl methyl ether	**16.0**		µg/l		20.0		80	70-130	1	25
Ethyl tert-butyl ether	**17.0**		µg/l		20.0		85	70-130	1	25
Di-isopropyl ether	**19.3**		µg/l		20.0		96	70-130	2	25
Tert-Butanol / butyl alcohol	**186**		µg/l		200		93	70-130	4	25
1,4-Dioxane	**200**		µg/l		200		100	70-130	4	25
trans-1,4-Dichloro-2-butene	**17.6**		µg/l		20.0		88	70-130	5	25
Ethanol	**478**		µg/l		400		119	70-130	6	30
Surrogate: 4-Bromofluorobenzene	*51.0*		µg/l		*50.0*		*102*	*70-130*		
Surrogate: Toluene-d8	*52.1*		µg/l		*50.0*		*104*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*56.5*		µg/l		*50.0*		*113*	*70-130*		
Surrogate: Dibromofluoromethane	*53.6*		µg/l		*50.0*		*107*	*70-130*		
Batch 1216122 - SW846 5030 Water MS										
Blank (1216122-BLK1)					Prepared & Analyzed: 06-Jul-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	< 1.00		µg/l	1.00						
Acetone	< 10.0		µg/l	10.0						
Acrylonitrile	< 0.50		µg/l	0.50						
Benzene	< 1.00		µg/l	1.00						
Bromobenzene	< 1.00		µg/l	1.00						
Bromochloromethane	< 1.00		µg/l	1.00						
Bromodichloromethane	< 0.50		µg/l	0.50						
Bromoform	< 1.00		µg/l	1.00						
Bromomethane	< 2.00		µg/l	2.00						
2-Butanone (MEK)	< 10.0		µg/l	10.0						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216122 - SW846 5030 Water MS										
Blank (1216122-BLK1)					Prepared & Analyzed: 06-Jul-12					
n-Butylbenzene	< 1.00		µg/l	1.00						
sec-Butylbenzene	< 1.00		µg/l	1.00						
tert-Butylbenzene	< 1.00		µg/l	1.00						
Carbon disulfide	< 2.00		µg/l	2.00						
Carbon tetrachloride	< 1.00		µg/l	1.00						
Chlorobenzene	< 1.00		µg/l	1.00						
Chloroethane	< 2.00		µg/l	2.00						
Chloroform	< 1.00		µg/l	1.00						
Chloromethane	< 2.00		µg/l	2.00						
2-Chlorotoluene	< 1.00		µg/l	1.00						
4-Chlorotoluene	< 1.00		µg/l	1.00						
1,2-Dibromo-3-chloropropane	< 2.00		µg/l	2.00						
Dibromochloromethane	< 0.50		µg/l	0.50						
1,2-Dibromoethane (EDB)	< 0.50		µg/l	0.50						
Dibromomethane	< 1.00		µg/l	1.00						
1,2-Dichlorobenzene	< 1.00		µg/l	1.00						
1,3-Dichlorobenzene	< 1.00		µg/l	1.00						
1,4-Dichlorobenzene	< 1.00		µg/l	1.00						
Dichlorodifluoromethane (Freon12)	< 2.00		µg/l	2.00						
1,1-Dichloroethane	< 1.00		µg/l	1.00						
1,2-Dichloroethane	< 1.00		µg/l	1.00						
1,1-Dichloroethene	< 1.00		µg/l	1.00						
cis-1,2-Dichloroethene	< 1.00		µg/l	1.00						
trans-1,2-Dichloroethene	< 1.00		µg/l	1.00						
1,2-Dichloropropane	< 1.00		µg/l	1.00						
1,3-Dichloropropane	< 1.00		µg/l	1.00						
2,2-Dichloropropane	< 1.00		µg/l	1.00						
1,1-Dichloropropene	< 1.00		µg/l	1.00						
cis-1,3-Dichloropropene	< 0.50		µg/l	0.50						
trans-1,3-Dichloropropene	< 0.50		µg/l	0.50						
Ethylbenzene	< 1.00		µg/l	1.00						
Hexachlorobutadiene	< 0.50		µg/l	0.50						
2-Hexanone (MBK)	< 10.0		µg/l	10.0						
Isopropylbenzene	< 1.00		µg/l	1.00						
4-Isopropyltoluene	< 1.00		µg/l	1.00						
Methyl tert-butyl ether	< 1.00		µg/l	1.00						
4-Methyl-2-pentanone (MIBK)	< 10.0		µg/l	10.0						
Methylene chloride	< 2.00		µg/l	2.00						
Naphthalene	< 1.00		µg/l	1.00						
n-Propylbenzene	< 1.00		µg/l	1.00						
Styrene	< 1.00		µg/l	1.00						
1,1,1,2-Tetrachloroethane	< 1.00		µg/l	1.00						
1,1,2,2-Tetrachloroethane	< 0.50		µg/l	0.50						
Tetrachloroethene	< 1.00		µg/l	1.00						
Toluene	< 1.00		µg/l	1.00						
1,2,3-Trichlorobenzene	< 1.00		µg/l	1.00						
1,2,4-Trichlorobenzene	< 1.00		µg/l	1.00						
1,3,5-Trichlorobenzene	< 1.00		µg/l	1.00						
1,1,1-Trichloroethane	< 1.00		µg/l	1.00						
1,1,2-Trichloroethane	< 1.00		µg/l	1.00						
Trichloroethene	< 1.00		µg/l	1.00						
Trichlorofluoromethane (Freon 11)	< 1.00		µg/l	1.00						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216122 - SW846 5030 Water MS										
Blank (1216122-BLK1)					Prepared & Analyzed: 06-Jul-12					
1,2,3-Trichloropropane	< 1.00		µg/l	1.00						
1,2,4-Trimethylbenzene	< 1.00		µg/l	1.00						
1,3,5-Trimethylbenzene	< 1.00		µg/l	1.00						
Vinyl chloride	< 1.00		µg/l	1.00						
m,p-Xylene	< 2.00		µg/l	2.00						
o-Xylene	< 1.00		µg/l	1.00						
Tetrahydrofuran	< 2.00		µg/l	2.00						
Ethyl ether	< 1.00		µg/l	1.00						
Tert-amyl methyl ether	< 1.00		µg/l	1.00						
Ethyl tert-butyl ether	< 1.00		µg/l	1.00						
Di-isopropyl ether	< 1.00		µg/l	1.00						
Tert-Butanol / butyl alcohol	< 10.0		µg/l	10.0						
1,4-Dioxane	< 20.0		µg/l	20.0						
trans-1,4-Dichloro-2-butene	< 5.00		µg/l	5.00						
Ethanol	< 400		µg/l	400						
Surrogate: 4-Bromofluorobenzene	*29.5*		µg/l		*30.0*		*98*	*70-130*		
Surrogate: Toluene-d8	*29.8*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*24.7*		µg/l		*30.0*		*82*	*70-130*		
Surrogate: Dibromofluoromethane	*30.9*		µg/l		*30.0*		*103*	*70-130*		
LCS (1216122-BS1)					Prepared & Analyzed: 06-Jul-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.4**		µg/l		20.0		112	70-130		
Acetone	**15.0**		µg/l		20.0		75	70-130		
Acrylonitrile	**14.4**		µg/l		20.0		72	70-130		
Benzene	**20.0**		µg/l		20.0		100	70-130		
Bromobenzene	**22.2**		µg/l		20.0		111	70-130		
Bromochloromethane	**20.3**		µg/l		20.0		102	70-130		
Bromodichloromethane	**20.1**		µg/l		20.0		100	70-130		
Bromoform	**21.8**		µg/l		20.0		109	70-130		
Bromomethane	**18.1**		µg/l		20.0		90	70-130		
2-Butanone (MEK)	**17.1**		µg/l		20.0		86	70-130		
n-Butylbenzene	**21.8**		µg/l		20.0		109	70-130		
sec-Butylbenzene	**21.6**		µg/l		20.0		108	70-130		
tert-Butylbenzene	**21.9**		µg/l		20.0		109	70-130		
Carbon disulfide	**19.2**		µg/l		20.0		96	70-130		
Carbon tetrachloride	**20.7**		µg/l		20.0		103	70-130		
Chlorobenzene	**21.7**		µg/l		20.0		108	70-130		
Chloroethane	**18.8**		µg/l		20.0		94	70-130		
Chloroform	**19.4**		µg/l		20.0		97	70-130		
Chloromethane	**18.6**		µg/l		20.0		93	70-130		
2-Chlorotoluene	**21.5**		µg/l		20.0		108	70-130		
4-Chlorotoluene	**21.3**		µg/l		20.0		106	70-130		
1,2-Dibromo-3-chloropropane	**17.5**		µg/l		20.0		87	70-130		
Dibromochloromethane	**20.8**		µg/l		20.0		104	70-130		
1,2-Dibromoethane (EDB)	**18.6**		µg/l		20.0		93	70-130		
Dibromomethane	**18.3**		µg/l		20.0		92	70-130		
1,2-Dichlorobenzene	**21.0**		µg/l		20.0		105	70-130		
1,3-Dichlorobenzene	**22.2**		µg/l		20.0		111	70-130		
1,4-Dichlorobenzene	**21.3**		µg/l		20.0		106	70-130		
Dichlorodifluoromethane (Freon12)	**20.4**		µg/l		20.0		102	70-130		
1,1-Dichloroethane	**18.9**		µg/l		20.0		94	70-130		
1,2-Dichloroethane	**16.7**		µg/l		20.0		84	70-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216122 - SW846 5030 Water MS										
LCS (1216122-BS1)						Prepared & Analyzed: 06-Jul-12				
1,1-Dichloroethene	**23.1**		µg/l		20.0		115	70-130		
cis-1,2-Dichloroethene	**20.9**		µg/l		20.0		105	70-130		
trans-1,2-Dichloroethene	**20.5**		µg/l		20.0		102	70-130		
1,2-Dichloropropane	**18.7**		µg/l		20.0		94	70-130		
1,3-Dichloropropane	**17.8**		µg/l		20.0		89	70-130		
2,2-Dichloropropane	**17.6**		µg/l		20.0		88	70-130		
1,1-Dichloropropene	**19.1**		µg/l		20.0		95	70-130		
cis-1,3-Dichloropropene	**18.8**		µg/l		20.0		94	70-130		
trans-1,3-Dichloropropene	**17.6**		µg/l		20.0		88	70-130		
Ethylbenzene	**21.2**		µg/l		20.0		106	70-130		
Hexachlorobutadiene	**21.3**		µg/l		20.0		106	70-130		
2-Hexanone (MBK)	**13.3**		µg/l		20.0		66	70-130		
Isopropylbenzene	**21.6**		µg/l		20.0		108	70-130		
4-Isopropyltoluene	**22.0**		µg/l		20.0		110	70-130		
Methyl tert-butyl ether	**17.5**		µg/l		20.0		88	70-130		
4-Methyl-2-pentanone (MIBK)	**16.3**		µg/l		20.0		81	70-130		
Methylene chloride	**22.4**		µg/l		20.0		112	70-130		
Naphthalene	**19.8**		µg/l		20.0		99	70-130		
n-Propylbenzene	**21.5**		µg/l		20.0		108	70-130		
Styrene	**22.3**		µg/l		20.0		112	70-130		
1,1,1,2-Tetrachloroethane	**22.7**		µg/l		20.0		114	70-130		
1,1,2,2-Tetrachloroethane	**18.8**		µg/l		20.0		94	70-130		
Tetrachloroethene	**20.3**		µg/l		20.0		102	70-130		
Toluene	**20.1**		µg/l		20.0		101	70-130		
1,2,3-Trichlorobenzene	**21.2**		µg/l		20.0		106	70-130		
1,2,4-Trichlorobenzene	**18.3**		µg/l		20.0		92	70-130		
1,3,5-Trichlorobenzene	**22.2**		µg/l		20.0		111	70-130		
1,1,1-Trichloroethane	**20.2**		µg/l		20.0		101	70-130		
1,1,2-Trichloroethane	**18.5**		µg/l		20.0		93	70-130		
Trichloroethene	**20.5**		µg/l		20.0		102	70-130		
Trichlorofluoromethane (Freon 11)	**20.4**		µg/l		20.0		102	70-130		
1,2,3-Trichloropropane	**18.0**		µg/l		20.0		90	70-130		
1,2,4-Trimethylbenzene	**22.4**		µg/l		20.0		112	70-130		
1,3,5-Trimethylbenzene	**22.6**		µg/l		20.0		113	70-130		
Vinyl chloride	**18.1**		µg/l		20.0		90	70-130		
m,p-Xylene	**43.1**		µg/l		40.0		108	70-130		
o-Xylene	**21.4**		µg/l		20.0		107	70-130		
Tetrahydrofuran	**13.3**	QC2	µg/l		20.0		67	70-130		
Ethyl ether	**18.1**		µg/l		20.0		91	70-130		
Tert-amyl methyl ether	**16.8**		µg/l		20.0		84	70-130		
Ethyl tert-butyl ether	**17.4**		µg/l		20.0		87	70-130		
Di-isopropyl ether	**16.6**		µg/l		20.0		83	70-130		
Tert-Butanol / butyl alcohol	**135**	QM9	µg/l		200		68	70-130		
1,4-Dioxane	**168**		µg/l		200		84	70-130		
trans-1,4-Dichloro-2-butene	**15.0**		µg/l		20.0		75	70-130		
Ethanol	**301**		µg/l		400		75	70-130		
Surrogate: 4-Bromofluorobenzene	*30.4*		µg/l		*30.0*		*101*	*70-130*		
Surrogate: Toluene-d8	*29.9*		µg/l		*30.0*		*100*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*24.8*		µg/l		*30.0*		*83*	*70-130*		
Surrogate: Dibromofluoromethane	*30.0*		µg/l		*30.0*		*100*	*70-130*		
LCS Dup (1216122-BSD1)						Prepared & Analyzed: 06-Jul-12				

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216122 - SW846 5030 Water MS										
LCS Dup (1216122-BSD1)					Prepared & Analyzed: 06-Jul-12					
1,1,2-Trichlorotrifluoroethane (Freon 113)	**22.2**		µg/l		20.0		111	70-130	0.6	25
Acetone	**18.4**		µg/l		20.0		92	70-130	20	50
Acrylonitrile	**15.2**		µg/l		20.0		76	70-130	5	25
Benzene	**19.9**		µg/l		20.0		99	70-130	0.6	25
Bromobenzene	**21.7**		µg/l		20.0		109	70-130	2	25
Bromochloromethane	**19.5**		µg/l		20.0		98	70-130	4	25
Bromodichloromethane	**19.8**		µg/l		20.0		99	70-130	1	25
Bromoform	**20.9**		µg/l		20.0		105	70-130	4	25
Bromomethane	**18.6**		µg/l		20.0		93	70-130	3	50
2-Butanone (MEK)	**16.8**		µg/l		20.0		84	70-130	2	50
n-Butylbenzene	**21.6**		µg/l		20.0		108	70-130	1	25
sec-Butylbenzene	**21.5**		µg/l		20.0		108	70-130	0.6	25
tert-Butylbenzene	**21.8**		µg/l		20.0		109	70-130	0.3	25
Carbon disulfide	**19.1**		µg/l		20.0		96	70-130	0.5	25
Carbon tetrachloride	**20.5**		µg/l		20.0		103	70-130	0.8	25
Chlorobenzene	**21.4**		µg/l		20.0		107	70-130	1	25
Chloroethane	**19.0**		µg/l		20.0		95	70-130	0.9	50
Chloroform	**19.6**		µg/l		20.0		98	70-130	1	25
Chloromethane	**18.6**		µg/l		20.0		93	70-130	0.4	25
2-Chlorotoluene	**21.3**		µg/l		20.0		106	70-130	1	25
4-Chlorotoluene	**20.8**		µg/l		20.0		104	70-130	2	25
1,2-Dibromo-3-chloropropane	**16.9**		µg/l		20.0		85	70-130	3	25
Dibromochloromethane	**21.0**		µg/l		20.0		105	70-130	1	50
1,2-Dibromoethane (EDB)	**19.1**		µg/l		20.0		96	70-130	3	25
Dibromomethane	**18.1**		µg/l		20.0		90	70-130	1	25
1,2-Dichlorobenzene	**21.9**		µg/l		20.0		110	70-130	4	25
1,3-Dichlorobenzene	**21.3**		µg/l		20.0		106	70-130	4	25
1,4-Dichlorobenzene	**21.2**		µg/l		20.0		106	70-130	0.6	25
Dichlorodifluoromethane (Freon12)	**20.4**		µg/l		20.0		102	70-130	0.1	50
1,1-Dichloroethane	**19.0**		µg/l		20.0		95	70-130	0.8	25
1,2-Dichloroethane	**16.6**		µg/l		20.0		83	70-130	0.5	25
1,1-Dichloroethene	**22.6**		µg/l		20.0		113	70-130	2	25
cis-1,2-Dichloroethene	**20.8**		µg/l		20.0		104	70-130	0.5	25
trans-1,2-Dichloroethene	**20.2**		µg/l		20.0		101	70-130	1	25
1,2-Dichloropropane	**18.5**		µg/l		20.0		93	70-130	1	25
1,3-Dichloropropane	**17.7**		µg/l		20.0		89	70-130	0.7	25
2,2-Dichloropropane	**17.3**		µg/l		20.0		87	70-130	2	25
1,1-Dichloropropene	**19.3**		µg/l		20.0		97	70-130	1	25
cis-1,3-Dichloropropene	**18.8**		µg/l		20.0		94	70-130	0.05	25
trans-1,3-Dichloropropene	**17.8**		µg/l		20.0		89	70-130	1	25
Ethylbenzene	**21.3**		µg/l		20.0		106	70-130	0.3	25
Hexachlorobutadiene	**19.2**		µg/l		20.0		96	70-130	10	50
2-Hexanone (MBK)	**13.4**		µg/l		20.0		67	70-130	0.5	25
Isopropylbenzene	**21.4**		µg/l		20.0		107	70-130	0.6	25
4-Isopropyltoluene	**22.1**		µg/l		20.0		111	70-130	0.8	25
Methyl tert-butyl ether	**17.6**		µg/l		20.0		88	70-130	0.6	25
4-Methyl-2-pentanone (MIBK)	**15.6**		µg/l		20.0		78	70-130	4	50
Methylene chloride	**22.3**		µg/l		20.0		111	70-130	0.3	25
Naphthalene	**19.0**		µg/l		20.0		95	70-130	4	25
n-Propylbenzene	**21.5**		µg/l		20.0		107	70-130	0.2	25
Styrene	**21.9**		µg/l		20.0		109	70-130	2	25
1,1,1,2-Tetrachloroethane	**22.0**		µg/l		20.0		110	70-130	3	25

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1216122 - SW846 5030 Water MS										
LCS Dup (1216122-BSD1)					Prepared & Analyzed: 06-Jul-12					
1,1,2,2-Tetrachloroethane	**18.7**		µg/l		20.0		93	70-130	0.9	25
Tetrachloroethene	**20.7**		µg/l		20.0		104	70-130	2	25
Toluene	**20.0**		µg/l		20.0		100	70-130	0.7	25
1,2,3-Trichlorobenzene	**20.2**		µg/l		20.0		101	70-130	4	25
1,2,4-Trichlorobenzene	**17.8**		µg/l		20.0		89	70-130	3	25
1,3,5-Trichlorobenzene	**21.5**		µg/l		20.0		108	70-130	3	25
1,1,1-Trichloroethane	**19.9**		µg/l		20.0		100	70-130	1	25
1,1,2-Trichloroethane	**18.6**		µg/l		20.0		93	70-130	0.5	25
Trichloroethene	**20.1**		µg/l		20.0		101	70-130	2	25
Trichlorofluoromethane (Freon 11)	**20.7**		µg/l		20.0		103	70-130	1	50
1,2,3-Trichloropropane	**17.5**		µg/l		20.0		88	70-130	3	25
1,2,4-Trimethylbenzene	**22.0**		µg/l		20.0		110	70-130	2	25
1,3,5-Trimethylbenzene	**22.2**		µg/l		20.0		111	70-130	2	25
Vinyl chloride	**18.6**		µg/l		20.0		93	70-130	3	25
m,p-Xylene	**43.3**		µg/l		40.0		108	70-130	0.4	25
o-Xylene	**21.6**		µg/l		20.0		108	70-130	1	25
Tetrahydrofuran	**13.1**	QC2	µg/l		20.0		65	70-130	2	25
Ethyl ether	**18.0**		µg/l		20.0		90	70-130	0.7	50
Tert-amyl methyl ether	**17.1**		µg/l		20.0		85	70-130	1	25
Ethyl tert-butyl ether	**17.5**		µg/l		20.0		88	70-130	0.3	25
Di-isopropyl ether	**16.5**		µg/l		20.0		83	70-130	0.6	25
Tert-Butanol / butyl alcohol	**143**		µg/l		200		71	70-130	5	25
1,4-Dioxane	**159**		µg/l		200		80	70-130	6	25
trans-1,4-Dichloro-2-butene	**14.6**		µg/l		20.0		73	70-130	3	25
Ethanol	**283**		µg/l		400		71	70-130	6	30
Surrogate: 4-Bromofluorobenzene	*29.6*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: Toluene-d8	*29.7*		µg/l		*30.0*		*99*	*70-130*		
Surrogate: 1,2-Dichloroethane-d4	*24.8*		µg/l		*30.0*		*83*	*70-130*		
Surrogate: Dibromofluoromethane	*29.9*		µg/l		*30.0*		*100*	*70-130*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215739 - SW846 3510C										
Blank (1215739-BLK1)					Prepared: 02-Jul-12 Analyzed: 05-Jul-12					
Acenaphthene	< 5.00		µg/l	5.00						
Acenaphthylene	< 5.00		µg/l	5.00						
Aniline	< 5.00		µg/l	5.00						
Anthracene	< 5.00		µg/l	5.00						
Azobenzene/Diphenyldiazine	< 5.00		µg/l	5.00						
Benzidine	< 5.00		µg/l	5.00						
Benzo (a) anthracene	< 5.00		µg/l	5.00						
Benzo (a) pyrene	< 5.00		µg/l	5.00						
Benzo (b) fluoranthene	< 5.00		µg/l	5.00						
Benzo (g,h,i) perylene	< 5.00		µg/l	5.00						
Benzo (k) fluoranthene	< 5.00		µg/l	5.00						
Benzoic acid	< 5.00		µg/l	5.00						
Benzyl alcohol	< 5.00		µg/l	5.00						
Bis(2-chloroethoxy)methane	< 5.00		µg/l	5.00						
Bis(2-chloroethyl)ether	< 5.00		µg/l	5.00						
Bis(2-chloroisopropyl)ether	< 5.00		µg/l	5.00						
Bis(2-ethylhexyl)phthalate	< 5.00		µg/l	5.00						
4-Bromophenyl phenyl ether	< 5.00		µg/l	5.00						
Butyl benzyl phthalate	< 5.00		µg/l	5.00						
Carbazole	< 5.00		µg/l	5.00						
4-Chloro-3-methylphenol	< 5.00		µg/l	5.00						
4-Chloroaniline	< 5.00		µg/l	5.00						
2-Chloronaphthalene	< 5.00		µg/l	5.00						
2-Chlorophenol	< 5.00		µg/l	5.00						
4-Chlorophenyl phenyl ether	< 5.00		µg/l	5.00						
Chrysene	< 5.00		µg/l	5.00						
Dibenzo (a,h) anthracene	< 5.00		µg/l	5.00						
Dibenzofuran	< 5.00		µg/l	5.00						
1,2-Dichlorobenzene	< 5.00		µg/l	5.00						
1,3-Dichlorobenzene	< 5.00		µg/l	5.00						
1,4-Dichlorobenzene	< 5.00		µg/l	5.00						
3,3´-Dichlorobenzidine	< 5.00		µg/l	5.00						
2,4-Dichlorophenol	< 5.00		µg/l	5.00						
Diethyl phthalate	< 5.00		µg/l	5.00						
Dimethyl phthalate	< 5.00		µg/l	5.00						
2,4-Dimethylphenol	< 5.00		µg/l	5.00						
Di-n-butyl phthalate	< 5.00		µg/l	5.00						
4,6-Dinitro-2-methylphenol	< 5.00		µg/l	5.00						
2,4-Dinitrophenol	< 5.00		µg/l	5.00						
2,4-Dinitrotoluene	< 5.00		µg/l	5.00						
2,6-Dinitrotoluene	< 5.00		µg/l	5.00						
Di-n-octyl phthalate	< 5.00		µg/l	5.00						
Fluoranthene	< 5.00		µg/l	5.00						
Fluorene	< 5.00		µg/l	5.00						
Hexachlorobenzene	< 5.00		µg/l	5.00						
Hexachlorobutadiene	< 5.00		µg/l	5.00						
Hexachlorocyclopentadiene	< 5.00		µg/l	5.00						
Hexachloroethane	< 5.00		µg/l	5.00						
Indeno (1,2,3-cd) pyrene	< 5.00		µg/l	5.00						
Isophorone	< 5.00		µg/l	5.00						
2-Methylnaphthalene	< 5.00		µg/l	5.00						
2-Methylphenol	< 5.00		µg/l	5.00						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215739 - SW846 3510C										
Blank (1215739-BLK1)					Prepared: 02-Jul-12 Analyzed: 05-Jul-12					
3 & 4-Methylphenol	< 10.0		µg/l	10.0						
Naphthalene	< 5.00		µg/l	5.00						
2-Nitroaniline	< 5.00		µg/l	5.00						
3-Nitroaniline	< 5.00		µg/l	5.00						
4-Nitroaniline	< 20.0		µg/l	20.0						
Nitrobenzene	< 5.00		µg/l	5.00						
2-Nitrophenol	< 5.00		µg/l	5.00						
4-Nitrophenol	< 20.0		µg/l	20.0						
N-Nitrosodimethylamine	< 5.00		µg/l	5.00						
N-Nitrosodi-n-propylamine	< 5.00		µg/l	5.00						
N-Nitrosodiphenylamine	< 5.00		µg/l	5.00						
Pentachlorophenol	< 20.0		µg/l	20.0						
Phenanthrene	< 5.00		µg/l	5.00						
Phenol	< 5.00		µg/l	5.00						
Pyrene	< 5.00		µg/l	5.00						
Pyridine	< 5.00		µg/l	5.00						
1,2,4-Trichlorobenzene	< 5.00		µg/l	5.00						
1-Methylnaphthalene	< 5.00		µg/l	5.00						
2,4,5-Trichlorophenol	< 5.00		µg/l	5.00						
2,4,6-Trichlorophenol	< 5.00		µg/l	5.00						
Pentachloronitrobenzene	< 5.00		µg/l	5.00						
1,2,4,5-Tetrachlorobenzene	< 5.00		µg/l	5.00						
Surrogate: 2-Fluorobiphenyl	*27.3*		µg/l		*50.0*		*55*	*30-130*		
Surrogate: 2-Fluorophenol	*19.3*		µg/l		*50.0*		*39*	*15-110*		
Surrogate: Nitrobenzene-d5	*26.4*		µg/l		*50.0*		*53*	*30-130*		
Surrogate: Phenol-d5	*12.5*		µg/l		*50.0*		*25*	*15-110*		
Surrogate: Terphenyl-dl4	*38.5*		µg/l		*50.0*		*77*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*36.2*		µg/l		*50.0*		*72*	*15-110*		
LCS (1215739-BS1)					Prepared: 02-Jul-12 Analyzed: 06-Jul-12					
Acenaphthene	**25.4**		µg/l	5.00	50.0		51	40-130		
Acenaphthylene	**24.7**		µg/l	5.00	50.0		49	40-130		
Aniline	**22.6**		µg/l	5.00	50.0		45	40-130		
Anthracene	**27.9**		µg/l	5.00	50.0		56	40-130		
Azobenzene/Diphenyldiazine	**21.9**		µg/l	5.00	50.0		44	40-130		
Benzidine	**10.3**	QC2	µg/l	5.00	50.0		21	40-140		
Benzo (a) anthracene	**29.5**		µg/l	5.00	50.0		59	40-130		
Benzo (a) pyrene	**30.2**		µg/l	5.00	50.0		60	40-130		
Benzo (b) fluoranthene	**32.9**		µg/l	5.00	50.0		66	40-130		
Benzo (g,h,i) perylene	**30.5**		µg/l	5.00	50.0		61	40-130		
Benzo (k) fluoranthene	**30.2**		µg/l	5.00	50.0		60	40-130		
Benzoic acid	**8.60**	QC2	µg/l	5.00	50.0		17	40-130		
Benzyl alcohol	**21.0**		µg/l	5.00	50.0		42	40-130		
Bis(2-chloroethoxy)methane	**21.8**		µg/l	5.00	50.0		44	40-130		
Bis(2-chloroethyl)ether	**22.6**		µg/l	5.00	50.0		45	40-130		
Bis(2-chloroisopropyl)ether	**20.8**		µg/l	5.00	50.0		42	40-130		
Bis(2-ethylhexyl)phthalate	**26.5**		µg/l	5.00	50.0		53	40-130		
4-Bromophenyl phenyl ether	**29.0**		µg/l	5.00	50.0		58	40-130		
Butyl benzyl phthalate	**24.7**		µg/l	5.00	50.0		49	40-130		
Carbazole	**25.3**		µg/l	5.00	50.0		51	40-130		
4-Chloro-3-methylphenol	**28.5**		µg/l	5.00	50.0		57	40-130		
4-Chloroaniline	**27.7**		µg/l	5.00	50.0		55	40-130		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215739 - SW846 3510C										
LCS (1215739-BS1)					Prepared: 02-Jul-12 Analyzed: 06-Jul-12					
2-Chloronaphthalene	**25.8**		µg/l	5.00	50.0		52	40-130		
2-Chlorophenol	**26.4**		µg/l	5.00	50.0		53	40-130		
4-Chlorophenyl phenyl ether	**27.8**		µg/l	5.00	50.0		56	40-130		
Chrysene	**27.4**		µg/l	5.00	50.0		55	40-130		
Dibenzo (a,h) anthracene	**32.7**		µg/l	5.00	50.0		65	40-130		
Dibenzofuran	**25.8**		µg/l	5.00	50.0		52	40-130		
1,2-Dichlorobenzene	**26.4**		µg/l	5.00	50.0		53	40-130		
1,3-Dichlorobenzene	**25.5**		µg/l	5.00	50.0		51	40-130		
1,4-Dichlorobenzene	**26.3**		µg/l	5.00	50.0		53	40-130		
3,3´-Dichlorobenzidine	**31.2**		µg/l	5.00	50.0		62	40-130		
2,4-Dichlorophenol	**30.6**		µg/l	5.00	50.0		61	40-130		
Diethyl phthalate	**26.1**		µg/l	5.00	50.0		52	40-130		
Dimethyl phthalate	**26.5**		µg/l	5.00	50.0		53	40-130		
2,4-Dimethylphenol	**27.7**		µg/l	5.00	50.0		55	40-130		
Di-n-butyl phthalate	**26.6**		µg/l	5.00	50.0		53	40-130		
4,6-Dinitro-2-methylphenol	**23.3**		µg/l	5.00	50.0		47	40-130		
2,4-Dinitrophenol	**14.9**	QC2	µg/l	5.00	50.0		30	40-130		
2,4-Dinitrotoluene	**24.1**		µg/l	5.00	50.0		48	40-130		
2,6-Dinitrotoluene	**28.1**		µg/l	5.00	50.0		56	40-130		
Di-n-octyl phthalate	**27.8**		µg/l	5.00	50.0		56	40-130		
Fluoranthene	**28.1**		µg/l	5.00	50.0		56	40-130		
Fluorene	**25.9**		µg/l	5.00	50.0		52	40-130		
Hexachlorobenzene	**32.3**		µg/l	5.00	50.0		65	40-130		
Hexachlorobutadiene	**26.5**		µg/l	5.00	50.0		53	40-130		
Hexachlorocyclopentadiene	**22.9**		µg/l	5.00	50.0		46	40-130		
Hexachloroethane	**23.2**		µg/l	5.00	50.0		46	40-130		
Indeno (1,2,3-cd) pyrene	**31.0**		µg/l	5.00	50.0		62	40-130		
Isophorone	**24.5**		µg/l	5.00	50.0		49	40-130		
2-Methylnaphthalene	**28.2**		µg/l	5.00	50.0		56	40-130		
2-Methylphenol	**25.3**		µg/l	5.00	50.0		51	40-130		
3 & 4-Methylphenol	**24.6**		µg/l	10.0	50.0		49	40-130		
Naphthalene	**26.2**		µg/l	5.00	50.0		52	40-130		
2-Nitroaniline	**23.8**		µg/l	5.00	50.0		48	40-130		
3-Nitroaniline	**23.8**		µg/l	5.00	50.0		48	40-130		
4-Nitroaniline	**21.9**		µg/l	20.0	50.0		44	40-130		
Nitrobenzene	**24.3**		µg/l	5.00	50.0		49	40-130		
2-Nitrophenol	**29.5**		µg/l	5.00	50.0		59	40-130		
4-Nitrophenol	**9.89**	QC2	µg/l	20.0	50.0		20	40-130		
N-Nitrosodimethylamine	**26.9**		µg/l	5.00	50.0		54	40-130		
N-Nitrosodi-n-propylamine	**22.5**		µg/l	5.00	50.0		45	40-130		
N-Nitrosodiphenylamine	**29.7**		µg/l	5.00	50.0		59	40-130		
Pentachlorophenol	**10.7**	QC2	µg/l	20.0	50.0		21	40-130		
Phenanthrene	**26.7**		µg/l	5.00	50.0		53	40-130		
Phenol	**13.6**	QC2	µg/l	5.00	50.0		27	40-130		
Pyrene	**27.7**		µg/l	5.00	50.0		55	40-130		
Pyridine	**20.2**		µg/l	5.00	50.0		40	40-140		
1,2,4-Trichlorobenzene	**27.1**		µg/l	5.00	50.0		54	40-130		
1-Methylnaphthalene	**26.9**		µg/l	5.00	50.0		54	40-140		
2,4,5-Trichlorophenol	**26.2**		µg/l	5.00	50.0		52	40-130		
2,4,6-Trichlorophenol	**26.5**		µg/l	5.00	50.0		53	40-130		
Pentachloronitrobenzene	**32.7**		µg/l	5.00	50.0		65	40-140		
1,2,4,5-Tetrachlorobenzene	**29.0**		µg/l	5.00	50.0		58	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215739 - SW846 3510C										
LCS (1215739-BS1)					Prepared: 02-Jul-12 Analyzed: 06-Jul-12					
Surrogate: 2-Fluorobiphenyl	*27.6*		µg/l		*50.0*		*55*	*30-130*		
Surrogate: 2-Fluorophenol	*17.6*		µg/l		*50.0*		*35*	*15-110*		
Surrogate: Nitrobenzene-d5	*24.9*		µg/l		*50.0*		*50*	*30-130*		
Surrogate: Phenol-d5	*11.8*		µg/l		*50.0*		*24*	*15-110*		
Surrogate: Terphenyl-dl4	*34.9*		µg/l		*50.0*		*70*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*35.4*		µg/l		*50.0*		*71*	*15-110*		
LCS Dup (1215739-BSD1)					Prepared: 02-Jul-12 Analyzed: 06-Jul-12					
Acenaphthene	**25.4**		µg/l	5.00	50.0		51	40-130	0	20
Acenaphthylene	**24.2**		µg/l	5.00	50.0		48	40-130	2	20
Aniline	**21.3**		µg/l	5.00	50.0		43	40-130	6	20
Anthracene	**27.7**		µg/l	5.00	50.0		55	40-130	0.7	20
Azobenzene/Diphenyldiazine	**22.3**		µg/l	5.00	50.0		45	40-130	2	20
Benzidine	< 5.00	QC2	µg/l	5.00	50.0			40-140		20
Benzo (a) anthracene	**31.2**		µg/l	5.00	50.0		62	40-130	6	20
Benzo (a) pyrene	**31.8**		µg/l	5.00	50.0		64	40-130	5	20
Benzo (b) fluoranthene	**33.1**		µg/l	5.00	50.0		66	40-130	0.8	20
Benzo (g,h,i) perylene	**30.9**		µg/l	5.00	50.0		62	40-130	1	20
Benzo (k) fluoranthene	**32.2**		µg/l	5.00	50.0		64	40-130	6	20
Benzoic acid	**8.28**	QC2	µg/l	5.00	50.0		17	40-130	4	20
Benzyl alcohol	**20.2**		µg/l	5.00	50.0		40	40-130	4	20
Bis(2-chloroethoxy)methane	**21.0**		µg/l	5.00	50.0		42	40-130	4	20
Bis(2-chloroethyl)ether	**21.4**		µg/l	5.00	50.0		43	40-130	5	20
Bis(2-chloroisopropyl)ether	**19.5**	QM9	µg/l	5.00	50.0		39	40-130	6	20
Bis(2-ethylhexyl)phthalate	**28.3**		µg/l	5.00	50.0		57	40-130	7	20
4-Bromophenyl phenyl ether	**29.2**		µg/l	5.00	50.0		58	40-130	0.7	20
Butyl benzyl phthalate	**26.7**		µg/l	5.00	50.0		53	40-130	8	20
Carbazole	**26.0**		µg/l	5.00	50.0		52	40-130	3	20
4-Chloro-3-methylphenol	**28.4**		µg/l	5.00	50.0		57	40-130	0.3	20
4-Chloroaniline	**27.4**		µg/l	5.00	50.0		55	40-130	1	20
2-Chloronaphthalene	**25.1**		µg/l	5.00	50.0		50	40-130	3	20
2-Chlorophenol	**24.5**		µg/l	5.00	50.0		49	40-130	7	20
4-Chlorophenyl phenyl ether	**27.4**		µg/l	5.00	50.0		55	40-130	1	20
Chrysene	**29.0**		µg/l	5.00	50.0		58	40-130	6	20
Dibenzo (a,h) anthracene	**33.8**		µg/l	5.00	50.0		68	40-130	3	20
Dibenzofuran	**25.7**		µg/l	5.00	50.0		51	40-130	0.6	20
1,2-Dichlorobenzene	**26.9**		µg/l	5.00	50.0		54	40-130	2	20
1,3-Dichlorobenzene	**22.4**		µg/l	5.00	50.0		45	40-130	13	20
1,4-Dichlorobenzene	**23.6**		µg/l	5.00	50.0		47	40-130	11	20
3,3´-Dichlorobenzidine	**31.8**		µg/l	5.00	50.0		64	40-130	2	20
2,4-Dichlorophenol	**29.4**		µg/l	5.00	50.0		59	40-130	4	20
Diethyl phthalate	**26.2**		µg/l	5.00	50.0		52	40-130	0.6	20
Dimethyl phthalate	**26.5**		µg/l	5.00	50.0		53	40-130	0.2	20
2,4-Dimethylphenol	**27.1**		µg/l	5.00	50.0		54	40-130	2	20
Di-n-butyl phthalate	**27.4**		µg/l	5.00	50.0		55	40-130	3	20
4,6-Dinitro-2-methylphenol	**23.1**		µg/l	5.00	50.0		46	40-130	0.9	20
2,4-Dinitrophenol	**14.3**	QC2	µg/l	5.00	50.0		29	40-130	4	20
2,4-Dinitrotoluene	**25.0**		µg/l	5.00	50.0		50	40-130	3	20
2,6-Dinitrotoluene	**27.6**		µg/l	5.00	50.0		55	40-130	2	20
Di-n-octyl phthalate	**29.4**		µg/l	5.00	50.0		59	40-130	6	20
Fluoranthene	**28.3**		µg/l	5.00	50.0		57	40-130	0.7	20
Fluorene	**25.8**		µg/l	5.00	50.0		52	40-130	0.4	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215739 - SW846 3510C										
LCS Dup (1215739-BSD1)					Prepared: 02-Jul-12 Analyzed: 06-Jul-12					
Hexachlorobenzene	**32.9**		µg/l	5.00	50.0		66	40-130	2	20
Hexachlorobutadiene	**24.3**		µg/l	5.00	50.0		49	40-130	9	20
Hexachlorocyclopentadiene	**21.3**		µg/l	5.00	50.0		43	40-130	7	20
Hexachloroethane	**20.7**		µg/l	5.00	50.0		41	40-130	11	20
Indeno (1,2,3-cd) pyrene	**32.8**		µg/l	5.00	50.0		66	40-130	6	20
Isophorone	**24.4**		µg/l	5.00	50.0		49	40-130	0.4	20
2-Methylnaphthalene	**27.9**		µg/l	5.00	50.0		56	40-130	1	20
2-Methylphenol	**24.2**		µg/l	5.00	50.0		48	40-130	4	20
3 & 4-Methylphenol	**23.5**		µg/l	10.0	50.0		47	40-130	4	20
Naphthalene	**25.3**		µg/l	5.00	50.0		51	40-130	3	20
2-Nitroaniline	**28.0**		µg/l	5.00	50.0		56	40-130	16	20
3-Nitroaniline	**28.0**		µg/l	5.00	50.0		56	40-130	16	20
4-Nitroaniline	**21.2**		µg/l	20.0	50.0		42	40-130	3	20
Nitrobenzene	**23.2**		µg/l	5.00	50.0		46	40-130	5	20
2-Nitrophenol	**26.7**		µg/l	5.00	50.0		53	40-130	10	20
4-Nitrophenol	**9.91**	QC2	µg/l	20.0	50.0		20	40-130	0.2	20
N-Nitrosodimethylamine	**26.2**		µg/l	5.00	50.0		52	40-130	3	20
N-Nitrosodi-n-propylamine	**21.8**		µg/l	5.00	50.0		44	40-130	3	20
N-Nitrosodiphenylamine	**29.8**		µg/l	5.00	50.0		60	40-130	0.6	20
Pentachlorophenol	**10.1**	QC2	µg/l	20.0	50.0		20	40-130	6	20
Phenanthrene	**29.5**		µg/l	5.00	50.0		59	40-130	10	20
Phenol	**12.4**	QC2	µg/l	5.00	50.0		25	40-130	9	20
Pyrene	**29.5**		µg/l	5.00	50.0		59	40-130	6	20
Pyridine	**17.8**	QM9	µg/l	5.00	50.0		36	40-140	12	20
1,2,4-Trichlorobenzene	**25.2**		µg/l	5.00	50.0		50	40-130	7	20
1-Methylnaphthalene	**25.6**		µg/l	5.00	50.0		51	40-140	5	20
2,4,5-Trichlorophenol	**27.5**		µg/l	5.00	50.0		55	40-130	5	20
2,4,6-Trichlorophenol	**30.1**		µg/l	5.00	50.0		60	40-130	13	20
Pentachloronitrobenzene	**32.8**		µg/l	5.00	50.0		66	40-140	0.4	20
1,2,4,5-Tetrachlorobenzene	**28.1**		µg/l	5.00	50.0		56	40-140	3	20
Surrogate: 2-Fluorobiphenyl	*26.2*		µg/l		*50.0*		*52*	*30-130*		
Surrogate: 2-Fluorophenol	*16.0*		µg/l		*50.0*		*32*	*15-110*		
Surrogate: Nitrobenzene-d5	*23.0*		µg/l		*50.0*		*46*	*30-130*		
Surrogate: Phenol-d5	*10.8*		µg/l		*50.0*		*22*	*15-110*		
Surrogate: Terphenyl-dl4	*35.6*		µg/l		*50.0*		*71*	*30-130*		
Surrogate: 2,4,6-Tribromophenol	*32.5*		µg/l		*50.0*		*65*	*15-110*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215479 - SW846 3510C										
Blank (1215479-BLK1)					Prepared & Analyzed: 28-Jun-12					
Aroclor-1016	< 0.200		µg/l	0.200						
Aroclor-1016 [2C]	< 0.200		µg/l	0.200						
Aroclor-1221	< 0.200		µg/l	0.200						
Aroclor-1221 [2C]	< 0.200		µg/l	0.200						
Aroclor-1232	< 0.200		µg/l	0.200						
Aroclor-1232 [2C]	< 0.200		µg/l	0.200						
Aroclor-1242	< 0.200		µg/l	0.200						
Aroclor-1242 [2C]	< 0.200		µg/l	0.200						
Aroclor-1248	< 0.200		µg/l	0.200						
Aroclor-1248 [2C]	< 0.200		µg/l	0.200						
Aroclor-1254	< 0.200		µg/l	0.200						
Aroclor-1254 [2C]	< 0.200		µg/l	0.200						
Aroclor-1260	< 0.200		µg/l	0.200						
Aroclor-1260 [2C]	< 0.200		µg/l	0.200						
Aroclor-1262	< 0.200		µg/l	0.200						
Aroclor-1262 [2C]	< 0.200		µg/l	0.200						
Aroclor-1268	< 0.200		µg/l	0.200						
Aroclor-1268 [2C]	< 0.200		µg/l	0.200						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.170*		µg/l		*0.200*		*85*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.190*		µg/l		*0.200*		*95*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.220*		µg/l		*0.200*		*110*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.200*		µg/l		*0.200*		*100*	*30-150*		
LCS (1215479-BS1)					Prepared & Analyzed: 28-Jun-12					
Aroclor-1016	**2.15**		µg/l	0.200	2.50		86	50-140		
Aroclor-1016 [2C]	**2.10**		µg/l	0.200	2.50		84	50-140		
Aroclor-1260	**2.18**		µg/l	0.200	2.50		87	50-140		
Aroclor-1260 [2C]	**1.83**		µg/l	0.200	2.50		73	50-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.160*		µg/l		*0.200*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.180*		µg/l		*0.200*		*90*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.220*		µg/l		*0.200*		*110*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.190*		µg/l		*0.200*		*95*	*30-150*		
LCS Dup (1215479-BSD1)					Prepared & Analyzed: 28-Jun-12					
Aroclor-1016	**2.19**		µg/l	0.200	2.50		88	50-140	2	30
Aroclor-1016 [2C]	**2.09**		µg/l	0.200	2.50		84	50-140	0.5	30
Aroclor-1260	**2.23**		µg/l	0.200	2.50		89	50-140	2	30
Aroclor-1260 [2C]	**1.78**		µg/l	0.200	2.50		71	50-140	3	30
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.160*		µg/l		*0.200*		*80*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.180*		µg/l		*0.200*		*90*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.220*		µg/l		*0.200*		*110*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.180*		µg/l		*0.200*		*90*	*30-150*		
Batch 1215484 - SW846 3510C										
Blank (1215484-BLK1)					Prepared: 28-Jun-12 Analyzed: 29-Jun-12					
alpha-BHC	< 0.020		µg/l	0.020						
alpha-BHC [2C]	< 0.020		µg/l	0.020						
beta-BHC	< 0.020		µg/l	0.020						
beta-BHC [2C]	< 0.020		µg/l	0.020						
delta-BHC	< 0.020		µg/l	0.020						
delta-BHC [2C]	< 0.020		µg/l	0.020						
gamma-BHC (Lindane)	< 0.020		µg/l	0.020						
gamma-BHC (Lindane) [2C]	< 0.020		µg/l	0.020						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215484 - SW846 3510C										
Blank (1215484-BLK1)					Prepared: 28-Jun-12 Analyzed: 29-Jun-12					
Heptachlor	< 0.020		µg/l	0.020						
Heptachlor [2C]	< 0.020		µg/l	0.020						
Aldrin	< 0.020		µg/l	0.020						
Aldrin [2C]	< 0.020		µg/l	0.020						
Heptachlor epoxide	< 0.020		µg/l	0.020						
Heptachlor epoxide [2C]	< 0.020		µg/l	0.020						
Endosulfan I	< 0.020		µg/l	0.020						
Endosulfan I [2C]	< 0.020		µg/l	0.020						
Dieldrin	< 0.020		µg/l	0.020						
Dieldrin [2C]	< 0.020		µg/l	0.020						
4,4'-DDE (p,p')	< 0.020		µg/l	0.020						
4,4'-DDE (p,p') [2C]	< 0.020		µg/l	0.020						
Endrin	< 0.040		µg/l	0.040						
Endrin [2C]	< 0.040		µg/l	0.040						
Endosulfan II	< 0.040		µg/l	0.040						
Endosulfan II [2C]	< 0.040		µg/l	0.040						
4,4'-DDD (p,p')	< 0.040		µg/l	0.040						
4,4'-DDD (p,p') [2C]	< 0.040		µg/l	0.040						
Endosulfan sulfate	< 0.040		µg/l	0.040						
Endosulfan sulfate [2C]	< 0.040		µg/l	0.040						
4,4'-DDT (p,p')	< 0.040		µg/l	0.040						
4,4'-DDT (p,p') [2C]	< 0.040		µg/l	0.040						
Methoxychlor	< 0.040		µg/l	0.040						
Methoxychlor [2C]	< 0.040		µg/l	0.040						
Endrin ketone	< 0.040		µg/l	0.040						
Endrin ketone [2C]	< 0.040		µg/l	0.040						
Endrin aldehyde	< 0.040		µg/l	0.040						
Endrin aldehyde [2C]	< 0.040		µg/l	0.040						
alpha-Chlordane	< 0.020		µg/l	0.020						
alpha-Chlordane [2C]	< 0.020		µg/l	0.020						
gamma-Chlordane	< 0.020		µg/l	0.020						
gamma-Chlordane [2C]	< 0.020		µg/l	0.020						
Toxaphene	< 0.500		µg/l	0.500						
Toxaphene [2C]	< 0.500		µg/l	0.500						
Chlordane	< 0.065		µg/l	0.065						
Chlordane [2C]	< 0.065		µg/l	0.065						
Alachlor	< 0.020		µg/l	0.020						
Alachlor [2C]	< 0.020		µg/l	0.020						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.174*		µg/l		*0.200*		*87*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.151*		µg/l		*0.200*		*76*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.188*		µg/l		*0.200*		*94*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.138*		µg/l		*0.200*		*69*	*30-150*		
LCS (1215484-BS1)					Prepared: 28-Jun-12 Analyzed: 29-Jun-12					
alpha-BHC	**0.407**		µg/l	0.020	0.500		81	40-140		
alpha-BHC [2C]	**0.385**		µg/l	0.020	0.500		77	40-140		
beta-BHC	**0.388**		µg/l	0.020	0.500		78	40-140		
beta-BHC [2C]	**0.363**		µg/l	0.020	0.500		73	40-140		
delta-BHC	**0.446**		µg/l	0.020	0.500		89	40-140		
delta-BHC [2C]	**0.430**		µg/l	0.020	0.500		86	40-140		
gamma-BHC (Lindane)	**0.393**		µg/l	0.020	0.500		79	50-120		
gamma-BHC (Lindane) [2C]	**0.372**		µg/l	0.020	0.500		74	50-120		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215484 - SW846 3510C										
LCS (1215484-BS1)						Prepared: 28-Jun-12 Analyzed: 29-Jun-12				
Heptachlor	**0.324**		µg/l	0.020	0.500		65	40-140		
Heptachlor [2C]	**0.334**		µg/l	0.020	0.500		67	40-140		
Aldrin	**0.405**		µg/l	0.020	0.500		81	40-140		
Aldrin [2C]	**0.376**		µg/l	0.020	0.500		75	40-140		
Heptachlor epoxide	**0.378**		µg/l	0.020	0.500		76	50-140		
Heptachlor epoxide [2C]	**0.353**		µg/l	0.020	0.500		71	50-140		
Endosulfan I	**0.383**		µg/l	0.020	0.500		77	40-140		
Endosulfan I [2C]	**0.361**		µg/l	0.020	0.500		72	40-140		
Dieldrin	**0.366**		µg/l	0.020	0.500		73	40-130		
Dieldrin [2C]	**0.337**		µg/l	0.020	0.500		67	40-130		
4,4'-DDE (p,p')	**0.379**		µg/l	0.020	0.500		76	50-140		
4,4'-DDE (p,p') [2C]	**0.372**		µg/l	0.020	0.500		74	50-140		
Endrin	**0.380**		µg/l	0.040	0.500		76	50-120		
Endrin [2C]	**0.322**		µg/l	0.040	0.500		64	50-120		
Endosulfan II	**0.374**		µg/l	0.040	0.500		75	40-140		
Endosulfan II [2C]	**0.335**		µg/l	0.040	0.500		67	40-140		
4,4'-DDD (p,p')	**0.389**		µg/l	0.040	0.500		78	40-140		
4,4'-DDD (p,p') [2C]	**0.379**		µg/l	0.040	0.500		76	40-140		
Endosulfan sulfate	**0.411**		µg/l	0.040	0.500		82	50-120		
Endosulfan sulfate [2C]	**0.357**		µg/l	0.040	0.500		71	50-120		
4,4'-DDT (p,p')	**0.358**		µg/l	0.040	0.500		72	40-140		
4,4'-DDT (p,p') [2C]	**0.271**		µg/l	0.040	0.500		54	40-140		
Methoxychlor	**0.303**		µg/l	0.040	0.500		61	40-140		
Methoxychlor [2C]	**0.301**		µg/l	0.040	0.500		60	40-140		
Endrin ketone	**0.393**		µg/l	0.040	0.500		79	40-140		
Endrin ketone [2C]	**0.352**		µg/l	0.040	0.500		70	40-140		
Endrin aldehyde	**0.468**		µg/l	0.040	0.500		94	40-140		
Endrin aldehyde [2C]	**0.489**		µg/l	0.040	0.500		98	40-140		
alpha-Chlordane	**0.332**		µg/l	0.020	0.500		66	40-140		
alpha-Chlordane [2C]	**0.373**		µg/l	0.020	0.500		75	40-140		
gamma-Chlordane	**0.406**		µg/l	0.020	0.500		81	40-130		
gamma-Chlordane [2C]	**0.377**		µg/l	0.020	0.500		75	40-130		
Alachlor	**0.362**		µg/l	0.020	0.500		72	40-140		
Alachlor [2C]	**0.349**		µg/l	0.020	0.500		70	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.169*		µg/l		*0.200*		*84*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.153*		µg/l		*0.200*		*77*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.138*		µg/l		*0.200*		*69*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.137*		µg/l		*0.200*		*68*	*30-150*		
LCS Dup (1215484-BSD1)						Prepared: 28-Jun-12 Analyzed: 29-Jun-12				
alpha-BHC	**0.414**		µg/l	0.020	0.500		83	40-140	2	20
alpha-BHC [2C]	**0.381**		µg/l	0.020	0.500		76	40-140	0.9	20
beta-BHC	**0.399**		µg/l	0.020	0.500		80	40-140	3	20
beta-BHC [2C]	**0.360**		µg/l	0.020	0.500		72	40-140	0.7	20
delta-BHC	**0.465**		µg/l	0.020	0.500		93	40-140	4	20
delta-BHC [2C]	**0.423**		µg/l	0.020	0.500		85	40-140	2	20
gamma-BHC (Lindane)	**0.404**		µg/l	0.020	0.500		81	50-120	3	20
gamma-BHC (Lindane) [2C]	**0.369**		µg/l	0.020	0.500		74	50-120	0.8	20
Heptachlor	**0.332**		µg/l	0.020	0.500		66	40-140	3	20
Heptachlor [2C]	**0.334**		µg/l	0.020	0.500		67	40-140	0.07	20
Aldrin	**0.418**		µg/l	0.020	0.500		84	40-140	3	20
Aldrin [2C]	**0.375**		µg/l	0.020	0.500		75	40-140	0.09	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215484 - SW846 3510C										
LCS Dup (1215484-BSD1)					Prepared: 28-Jun-12 Analyzed: 29-Jun-12					
Heptachlor epoxide	**0.391**		µg/l	0.020	0.500		78	50-140	3	20
Heptachlor epoxide [2C]	**0.352**		µg/l	0.020	0.500		70	50-140	0.3	20
Endosulfan I	**0.393**		µg/l	0.020	0.500		79	40-140	2	20
Endosulfan I [2C]	**0.356**		µg/l	0.020	0.500		71	40-140	1	20
Dieldrin	**0.375**		µg/l	0.020	0.500		75	40-130	2	20
Dieldrin [2C]	**0.338**		µg/l	0.020	0.500		68	40-130	0.3	20
4,4'-DDE (p,p')	**0.385**		µg/l	0.020	0.500		77	50-140	2	20
4,4'-DDE (p,p') [2C]	**0.368**		µg/l	0.020	0.500		74	50-140	1	20
Endrin	**0.379**		µg/l	0.040	0.500		76	50-120	0.4	20
Endrin [2C]	**0.322**		µg/l	0.040	0.500		64	50-120	0.2	20
Endosulfan II	**0.383**		µg/l	0.040	0.500		77	40-140	2	20
Endosulfan II [2C]	**0.334**		µg/l	0.040	0.500		67	40-140	0.5	20
4,4'-DDD (p,p')	**0.398**		µg/l	0.040	0.500		80	40-140	2	20
4,4'-DDD (p,p') [2C]	**0.371**		µg/l	0.040	0.500		74	40-140	2	20
Endosulfan sulfate	**0.422**		µg/l	0.040	0.500		84	50-120	3	20
Endosulfan sulfate [2C]	**0.358**		µg/l	0.040	0.500		72	50-120	0.3	20
4,4'-DDT (p,p')	**0.353**		µg/l	0.040	0.500		71	40-140	1	20
4,4'-DDT (p,p') [2C]	**0.267**		µg/l	0.040	0.500		53	40-140	2	20
Methoxychlor	**0.305**		µg/l	0.040	0.500		61	40-140	0.7	20
Methoxychlor [2C]	**0.300**		µg/l	0.040	0.500		60	40-140	0.2	20
Endrin ketone	**0.400**		µg/l	0.040	0.500		80	40-140	2	20
Endrin ketone [2C]	**0.350**		µg/l	0.040	0.500		70	40-140	0.5	20
Endrin aldehyde	**0.491**		µg/l	0.040	0.500		98	40-140	5	20
Endrin aldehyde [2C]	**0.488**		µg/l	0.040	0.500		98	40-140	0.1	20
alpha-Chlordane	**0.343**		µg/l	0.020	0.500		69	40-140	3	20
alpha-Chlordane [2C]	**0.370**		µg/l	0.020	0.500		74	40-140	0.8	20
gamma-Chlordane	**0.415**		µg/l	0.020	0.500		83	40-130	2	20
gamma-Chlordane [2C]	**0.373**		µg/l	0.020	0.500		75	40-130	1	20
Alachlor	**0.382**		µg/l	0.020	0.500		76	40-140	5	20
Alachlor [2C]	**0.346**		µg/l	0.020	0.500		69	40-140	0.9	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.170*		µg/l		*0.200*		*85*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.154*		µg/l		*0.200*		*77*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr)	*0.137*		µg/l		*0.200*		*68*	*30-150*		
Surrogate: Decachlorobiphenyl (Sr) [2C]	*0.137*		µg/l		*0.200*		*68*	*30-150*		
Batch 1215870 - SW846 3510C										
Blank (1215870-BLK1)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
2,4,5-T	< 0.100		µg/l	0.100						
2,4,5-T [2C]	< 0.100		µg/l	0.100						
2,4,5-TP (Silvex)	< 0.100		µg/l	0.100						
2,4,5-TP (Silvex) [2C]	< 0.100		µg/l	0.100						
2,4-D	< 0.100		µg/l	0.100						
2,4-D [2C]	< 0.100		µg/l	0.100						
2,4-DB	< 0.100		µg/l	0.100						
2,4-DB [2C]	< 0.100		µg/l	0.100						
Dalapon	< 0.100		µg/l	0.100						
Dalapon [2C]	< 0.100		µg/l	0.100						
Dicamba	< 0.100		µg/l	0.100						
Dicamba [2C]	< 0.100		µg/l	0.100						
Dichlorprop	< 0.100		µg/l	0.100						
Dichlorprop [2C]	< 0.100		µg/l	0.100						
Dinoseb	< 0.100		µg/l	0.100						

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215870 - SW846 3510C										
Blank (1215870-BLK1)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
Dinoseb [2C]	< 0.100		µg/l	0.100						
MCPA	< 50.0		µg/l	50.0						
MCPA [2C]	< 50.0		µg/l	50.0						
MCPB	< 50.0		µg/l	50.0						
MCPB [2C]	< 50.0		µg/l	50.0						
MCPP	< 50.0		µg/l	50.0						
MCPP [2C]	< 50.0		µg/l	50.0						
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.0700*		µg/l		*0.200*		*35*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.0700*		µg/l		*0.200*		*35*	*30-150*		
LCS (1215870-BS1)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
2,4,5-T	**0.350**		µg/l	0.100	0.500		70	40-140		
2,4,5-T [2C]	**0.300**		µg/l	0.100	0.500		60	40-140		
2,4,5-TP (Silvex)	**0.290**		µg/l	0.100	0.500		58	40-140		
2,4,5-TP (Silvex) [2C]	**0.300**		µg/l	0.100	0.500		60	40-140		
2,4-D	**0.340**		µg/l	0.100	0.500		68	40-140		
2,4-D [2C]	**0.320**		µg/l	0.100	0.500		64	40-140		
2,4-DB	**0.370**		µg/l	0.100	0.500		74	40-140		
2,4-DB [2C]	**0.280**		µg/l	0.100	0.500		56	40-140		
Dalapon	**0.270**		µg/l	0.100	0.500		54	40-140		
Dalapon [2C]	**0.250**		µg/l	0.100	0.500		50	40-140		
Dicamba	**0.300**		µg/l	0.100	0.500		60	40-140		
Dicamba [2C]	**0.290**		µg/l	0.100	0.500		58	40-140		
Dichlorprop	**0.320**		µg/l	0.100	0.500		64	40-140		
Dichlorprop [2C]	**0.320**		µg/l	0.100	0.500		64	40-140		
Dinoseb	**0.280**		µg/l	0.100	0.500		56	40-140		
Dinoseb [2C]	**0.280**		µg/l	0.100	0.500		56	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.100*		µg/l		*0.200*		*50*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.0900*		µg/l		*0.200*		*45*	*30-150*		
LCS (1215870-BS2)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
MCPA	**80.0**		µg/l	50.0	150		53	40-140		
MCPA [2C]	**90.0**		µg/l	50.0	150		60	40-140		
MCPB	**90.0**		µg/l	50.0	150		60	40-140		
MCPB [2C]	**80.0**		µg/l	50.0	150		53	40-140		
MCPP	**80.0**		µg/l	50.0	150		53	40-140		
MCPP [2C]	**80.0**		µg/l	50.0	150		53	40-140		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.0900*		µg/l		*0.200*		*45*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.0800*		µg/l		*0.200*		*40*	*30-150*		
LCS Dup (1215870-BSD1)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
2,4,5-T	**0.310**		µg/l	0.100	0.500		62	40-140	12	20
2,4,5-T [2C]	**0.300**		µg/l	0.100	0.500		60	40-140	0	20
2,4,5-TP (Silvex)	**0.300**		µg/l	0.100	0.500		60	40-140	3	20
2,4,5-TP (Silvex) [2C]	**0.290**		µg/l	0.100	0.500		58	40-140	3	20
2,4-D	**0.320**		µg/l	0.100	0.500		64	40-140	6	20
2,4-D [2C]	**0.320**		µg/l	0.100	0.500		64	40-140	0	20
2,4-DB	**0.320**		µg/l	0.100	0.500		64	40-140	14	20
2,4-DB [2C]	**0.290**		µg/l	0.100	0.500		58	40-140	4	20
Dalapon	**0.240**		µg/l	0.100	0.500		48	40-140	12	20
Dalapon [2C]	**0.250**		µg/l	0.100	0.500		50	40-140	0	20
Dicamba	**0.280**		µg/l	0.100	0.500		56	40-140	7	20
Dicamba [2C]	**0.290**		µg/l	0.100	0.500		58	40-140	0	20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215870 - SW846 3510C										
LCS Dup (1215870-BSD1)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
Dichlorprop	**0.330**		µg/l	0.100	0.500		66	40-140	3	20
Dichlorprop [2C]	**0.320**		µg/l	0.100	0.500		64	40-140	0	20
Dinoseb	**0.280**		µg/l	0.100	0.500		56	40-140	0	20
Dinoseb [2C]	**0.290**		µg/l	0.100	0.500		58	40-140	4	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.0900*		µg/l		*0.200*		*45*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.0900*		µg/l		*0.200*		*45*	*30-150*		
LCS Dup (1215870-BSD2)					Prepared: 03-Jul-12 Analyzed: 10-Jul-12					
MCPA	**70.0**		µg/l	50.0	150		47	40-140	13	20
MCPA [2C]	**80.0**		µg/l	50.0	150		53	40-140	12	20
MCPB	**90.0**		µg/l	50.0	150		60	40-140	0	20
MCPB [2C]	**80.0**		µg/l	50.0	150		53	40-140	0	20
MCPP	**80.0**		µg/l	50.0	150		53	40-140	0	20
MCPP [2C]	**80.0**		µg/l	50.0	150		53	40-140	0	20
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr)	*0.0800*		µg/l		*0.200*		*40*	*30-150*		
Surrogate: 4,4-DB-Octafluorobiphenyl (Sr) [2C]	*0.0800*		µg/l		*0.200*		*40*	*30-150*		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215735 - SW846 3510C										
Blank (1215735-BLK1)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
C9-C18 Aliphatic Hydrocarbons	< 50.0		µg/l	50.0						
C19-C36 Aliphatic Hydrocarbons	< 50.0		µg/l	50.0						
C11-C22 Aromatic Hydrocarbons	< 50.0		µg/l	50.0						
Unadjusted C11-C22 Aromatic Hydrocarbons	< 50.0		µg/l	50.0						
Total Petroleum Hydrocarbons	< 50.0		µg/l	50.0						
Unadjusted Total Petroleum Hydrocarbons	< 50.0		µg/l	50.0						
Naphthalene	< 1.00		µg/l	1.00						
2-Methylnaphthalene	< 1.00		µg/l	1.00						
Acenaphthylene	< 1.00		µg/l	1.00						
Acenaphthene	< 1.00		µg/l	1.00						
Fluorene	< 1.00		µg/l	1.00						
Phenanthrene	< 1.00		µg/l	1.00						
Anthracene	< 1.00		µg/l	1.00						
Fluoranthene	< 1.00		µg/l	1.00						
Pyrene	< 1.00		µg/l	1.00						
Benzo (a) anthracene	< 1.00		µg/l	1.00						
Chrysene	< 1.00		µg/l	1.00						
Benzo (b) fluoranthene	< 1.00		µg/l	1.00						
Benzo (k) fluoranthene	< 1.00		µg/l	1.00						
Benzo (a) pyrene	< 0.200		µg/l	0.200						
Indeno (1,2,3-cd) pyrene	< 0.500		µg/l	0.500						
Dibenzo (a,h) anthracene	< 0.500		µg/l	0.500						
Benzo (g,h,i) perylene	< 1.00		µg/l	1.00						
n-Nonane (C9)	< 5.00		µg/l	5.00						
n-Decane	< 5.00		µg/l	5.00						
n-Dodecane	< 5.00		µg/l	5.00						
n-Tetradecane	< 5.00		µg/l	5.00						
n-Hexadecane	< 5.00		µg/l	5.00						
n-Octadecane	< 5.00		µg/l	5.00						
n-Nonadecane	< 5.00		µg/l	5.00						
n-Eicosane	< 5.00		µg/l	5.00						
n-Docosane	< 5.00		µg/l	5.00						
n-Tetracosane	< 5.00		µg/l	5.00						
n-Hexacosane	< 5.00		µg/l	5.00						
n-Octacosane	< 5.00		µg/l	5.00						
n-Triacontane	< 5.00		µg/l	5.00						
n-Hexatriacontane	< 5.00		µg/l	5.00						
Naphthalene (aliphatic fraction)	**0.00**		µg/l							
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l							
Surrogate: 1-Chlorooctadecane	*46.9*		µg/l		*50.0*		*94*	*40-140*		
Surrogate: Ortho-Terphenyl	*43.0*		µg/l		*50.0*		*86*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*27.4*		µg/l		*40.0*		*68*	*40-140*		
LCS (1215735-BS1)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
C9-C18 Aliphatic Hydrocarbons	**535**		µg/l	50.0	600		89	40-140		
C19-C36 Aliphatic Hydrocarbons	**954**		µg/l	50.0	800		119	40-140		
C11-C22 Aromatic Hydrocarbons	**1010**		µg/l	50.0	1700		59	40-140		
n-Nonane (C9)	**48.3**		µg/l	5.00	100		48	30-140		
n-Decane	**64.5**		µg/l	5.00	100		65	40-140		
n-Dodecane	**73.8**		µg/l	5.00	100		74	40-140		
n-Tetradecane	**89.3**		µg/l	5.00	100		89	40-140		
n-Hexadecane	**99.1**		µg/l	5.00	100		99	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215735 - SW846 3510C										
LCS (1215735-BS1)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
n-Octadecane	**101**		µg/l	5.00	100		101	40-140		
n-Nonadecane	**102**		µg/l	5.00	100		102	40-140		
n-Eicosane	**102**		µg/l	5.00	100		102	40-140		
n-Docosane	**104**		µg/l	5.00	100		104	40-140		
n-Tetracosane	**103**		µg/l	5.00	100		103	40-140		
n-Hexacosane	**103**		µg/l	5.00	100		103	40-140		
n-Octacosane	**104**		µg/l	5.00	100		104	40-140		
n-Triacontane	**100**		µg/l	5.00	100		100	40-140		
n-Hexatriacontane	**96.7**		µg/l	5.00	100		97	40-140		
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
Surrogate: 1-Chlorooctadecane	*50.3*		µg/l		*50.0*		*101*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1215735-BS2)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
Naphthalene	**43.4**		µg/l	10.0	100		43	40-140		
2-Methylnaphthalene	**44.4**		µg/l	10.0	100		44	40-140		
Acenaphthylene	**56.3**		µg/l	10.0	100		56	40-140		
Acenaphthene	**58.3**		µg/l	10.0	100		58	40-140		
Fluorene	**66.2**		µg/l	10.0	100		66	40-140		
Phenanthrene	**104**		µg/l	10.0	100		104	40-140		
Anthracene	**102**		µg/l	10.0	100		102	40-140		
Fluoranthene	**108**		µg/l	10.0	100		108	40-140		
Pyrene	**102**		µg/l	10.0	100		102	40-140		
Benzo (a) anthracene	**90.7**		µg/l	10.0	100		91	40-140		
Chrysene	**105**		µg/l	10.0	100		105	40-140		
Benzo (b) fluoranthene	**71.9**		µg/l	10.0	100		72	40-140		
Benzo (k) fluoranthene	**107**		µg/l	10.0	100		107	40-140		
Benzo (a) pyrene	**91.0**		µg/l	2.00	100		91	40-140		
Indeno (1,2,3-cd) pyrene	**93.7**		µg/l	5.00	100		94	40-140		
Dibenzo (a,h) anthracene	**98.6**		µg/l	5.00	100		99	40-140		
Benzo (g,h,i) perylene	**89.9**		µg/l	10.0	100		90	40-140		
Surrogate: Ortho-Terphenyl	*54.2*		µg/l		*50.0*		*108*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*22.4*		µg/l		*40.0*		*56*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1215735-BS3)					Prepared & Analyzed: 29-Jun-12					
C9-C18 Aliphatic Hydrocarbons	**474**		µg/l	50.0	600		79	40-140		
C19-C36 Aliphatic Hydrocarbons	**681**		µg/l	50.0	800		85	40-140		
C11-C22 Aromatic Hydrocarbons	**1230**		µg/l	50.0	1700		72	40-140		
n-Nonane (C9)	**58.2**		µg/l	5.00	100		58	30-140		
n-Decane	**67.9**		µg/l	5.00	100		68	40-140		
n-Dodecane	**74.9**		µg/l	5.00	100		75	40-140		
n-Tetradecane	**84.7**		µg/l	5.00	100		85	40-140		
n-Hexadecane	**94.2**		µg/l	5.00	100		94	40-140		
n-Octadecane	**97.7**		µg/l	5.00	100		98	40-140		
n-Nonadecane	**98.7**		µg/l	5.00	100		99	40-140		
n-Eicosane	**98.6**		µg/l	5.00	100		99	40-140		
n-Docosane	**97.1**		µg/l	5.00	100		97	40-140		
n-Tetracosane	**92.4**		µg/l	5.00	100		92	40-140		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215735 - SW846 3510C										
LCS (1215735-BS3)					Prepared & Analyzed: 29-Jun-12					
n-Hexacosane	**89.4**		µg/l	5.00	100		89	40-140		
n-Octacosane	**88.7**		µg/l	5.00	100		89	40-140		
n-Triacontane	**84.6**		µg/l	5.00	100		85	40-140		
n-Hexatriacontane	**84.8**		µg/l	5.00	100		85	40-140		
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		
Surrogate: 1-Chlorooctadecane	*43.0*		µg/l		*50.0*		*86*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS (1215735-BS4)					Prepared & Analyzed: 29-Jun-12					
Naphthalene	**76.1**		µg/l	10.0	100		76	40-140		
2-Methylnaphthalene	**73.0**		µg/l	10.0	100		73	40-140		
Acenaphthylene	**85.5**		µg/l	10.0	100		86	40-140		
Acenaphthene	**86.2**		µg/l	10.0	100		86	40-140		
Fluorene	**95.2**		µg/l	10.0	100		95	40-140		
Phenanthrene	**98.2**		µg/l	10.0	100		98	40-140		
Anthracene	**98.1**		µg/l	10.0	100		98	40-140		
Fluoranthene	**92.7**		µg/l	10.0	100		93	40-140		
Pyrene	**92.7**		µg/l	10.0	100		93	40-140		
Benzo (a) anthracene	**107**		µg/l	10.0	100		107	40-140		
Chrysene	**104**		µg/l	10.0	100		104	40-140		
Benzo (b) fluoranthene	**106**		µg/l	10.0	100		106	40-140		
Benzo (k) fluoranthene	**101**		µg/l	10.0	100		101	40-140		
Benzo (a) pyrene	**99.8**		µg/l	2.00	100		100	40-140		
Indeno (1,2,3-cd) pyrene	**109**		µg/l	5.00	100		109	40-140		
Dibenzo (a,h) anthracene	**103**		µg/l	5.00	100		103	40-140		
Benzo (g,h,i) perylene	**99.6**		µg/l	10.0	100		100	40-140		
Surrogate: Ortho-Terphenyl	*48.5*		µg/l		*50.0*		*97*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*38.4*		µg/l		*40.0*		*96*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1215735-BSD1)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
C9-C18 Aliphatic Hydrocarbons	**453**		µg/l	50.0	600		76	40-140	17	25
C19-C36 Aliphatic Hydrocarbons	**1050**		µg/l	50.0	800		132	40-140	10	25
C11-C22 Aromatic Hydrocarbons	**1090**		µg/l	50.0	1700		64	40-140	8	25
n-Nonane (C9)	**46.6**		µg/l	5.00	100		47	30-140	4	25
n-Decane	**60.8**		µg/l	5.00	100		61	40-140	6	25
n-Dodecane	**74.7**		µg/l	5.00	100		75	40-140	1	25
n-Tetradecane	**93.8**		µg/l	5.00	100		94	40-140	5	25
n-Hexadecane	**109**		µg/l	5.00	100		109	40-140	9	25
n-Octadecane	**113**		µg/l	5.00	100		113	40-140	11	25
n-Nonadecane	**115**		µg/l	5.00	100		115	40-140	12	25
n-Eicosane	**116**		µg/l	5.00	100		116	40-140	13	25
n-Docosane	**117**		µg/l	5.00	100		117	40-140	12	25
n-Tetracosane	**116**		µg/l	5.00	100		116	40-140	12	25
n-Hexacosane	**116**		µg/l	5.00	100		116	40-140	11	25
n-Octacosane	**118**		µg/l	5.00	100		118	40-140	12	25
n-Triacontane	**113**		µg/l	5.00	100		113	40-140	12	25
n-Hexatriacontane	**109**		µg/l	5.00	100		109	40-140	12	25
Naphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		200

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215735 - SW846 3510C										
LCS Dup (1215735-BSD1)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
2-Methylnaphthalene (aliphatic fraction)	**0.00**		µg/l					0-200		200
Surrogate: 1-Chlorooctadecane	*56.1*		µg/l		*50.0*		*112*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		
LCS Dup (1215735-BSD2)					Prepared: 02-Jul-12 Analyzed: 03-Jul-12					
Naphthalene	**43.5**		µg/l	10.0	100		44	40-140	0.2	25
2-Methylnaphthalene	**43.4**		µg/l	10.0	100		43	40-140	2	25
Acenaphthylene	**51.9**		µg/l	10.0	100		52	40-140	8	25
Acenaphthene	**51.0**		µg/l	10.0	100		51	40-140	13	25
Fluorene	**71.6**		µg/l	10.0	100		72	40-140	8	25
Phenanthrene	**95.4**		µg/l	10.0	100		95	40-140	8	25
Anthracene	**91.3**		µg/l	10.0	100		91	40-140	11	25
Fluoranthene	**96.7**		µg/l	10.0	100		97	40-140	11	25
Pyrene	**92.6**		µg/l	10.0	100		93	40-140	10	25
Benzo (a) anthracene	**83.0**		µg/l	10.0	100		83	40-140	9	25
Chrysene	**97.2**		µg/l	10.0	100		97	40-140	8	25
Benzo (b) fluoranthene	**95.5**	QR2	µg/l	10.0	100		96	40-140	28	25
Benzo (k) fluoranthene	**99.8**		µg/l	10.0	100		100	40-140	7	25
Benzo (a) pyrene	**80.4**		µg/l	2.00	100		80	40-140	12	25
Indeno (1,2,3-cd) pyrene	**80.6**		µg/l	5.00	100		81	40-140	15	25
Dibenzo (a,h) anthracene	**90.3**		µg/l	5.00	100		90	40-140	9	25
Benzo (g,h,i) perylene	**81.1**		µg/l	10.0	100		81	40-140	10	25
Surrogate: Ortho-Terphenyl	*46.5*		µg/l		*50.0*		*93*	*40-140*		
Surrogate: 2-Fluorobiphenyl	*20.4*		µg/l		*40.0*		*51*	*40-140*		
Naphthalene Breakthrough	0.00		%					0-5		
2-Methylnaphthalene Breakthrough	0.00		%					0-5		

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215916 - SW846 3005A										
Blank (1215916-BLK1)					Prepared: 05-Jul-12 Analyzed: 09-Jul-12					
Selenium	< 0.0150		mg/l	0.0150						
Iron	< 0.0150		mg/l	0.0150						
Manganese	< 0.0020		mg/l	0.0020						
Lead	< 0.0075		mg/l	0.0075						
Magnesium	< 0.0100		mg/l	0.0100						
Arsenic	< 0.0040		mg/l	0.0040						
Barium	< 0.0050		mg/l	0.0050						
Cadmium	< 0.0025		mg/l	0.0025						
Chromium	< 0.0050		mg/l	0.0050						
Silver	< 0.0050		mg/l	0.0050						
LCS (1215916-BS1)					Prepared: 05-Jul-12 Analyzed: 02-Aug-12					
Iron	**1.40**		mg/l	0.0150	1.25		112	85-115		
Selenium	**1.30**		mg/l	0.0150	1.25		104	85-115		
Lead	**1.26**		mg/l	0.0075	1.25		101	85-115		
Manganese	**1.28**		mg/l	0.0020	1.25		102	85-115		
Magnesium	**1.28**		mg/l	0.0100	1.25		102	85-115		
Cadmium	**1.29**		mg/l	0.0025	1.25		103	85-115		
Barium	**1.27**		mg/l	0.0050	1.25		102	85-115		
Silver	**1.25**		mg/l	0.0050	1.25		100	85-115		
Chromium	**1.26**		mg/l	0.0050	1.25		101	85-115		
Arsenic	**1.28**		mg/l	0.0040	1.25		103	85-115		
LCS Dup (1215916-BSD1)					Prepared: 05-Jul-12 Analyzed: 09-Jul-12					
Magnesium	**1.24**		mg/l	0.0100	1.25		99	85-115	3	20
Selenium	**1.26**		mg/l	0.0150	1.25		101	85-115	3	20
Iron	**1.37**		mg/l	0.0150	1.25		109	85-115	3	20
Lead	**1.22**		mg/l	0.0075	1.25		98	85-115	3	20
Manganese	**1.24**		mg/l	0.0020	1.25		99	85-115	3	20
Cadmium	**1.25**		mg/l	0.0025	1.25		100	85-115	3	20
Barium	**1.24**		mg/l	0.0050	1.25		100	85-115	2	20
Arsenic	**1.25**		mg/l	0.0040	1.25		100	85-115	3	20
Silver	**1.21**		mg/l	0.0050	1.25		97	85-115	3	20
Chromium	**1.23**		mg/l	0.0050	1.25		98	85-115	3	20
Duplicate (1215916-DUP1)			**Source: SB51831-01**			Prepared: 05-Jul-12 Analyzed: 02-Aug-12				
Iron	**0.166**	QR6	mg/l	0.0150		0.107			43	20
Selenium	< 0.0150		mg/l	0.0150		BRL				20
Lead	< 0.0075		mg/l	0.0075		BRL				20
Magnesium	**36.6**		mg/l	0.0100		36.6			0	20
Manganese	**4.32**		mg/l	0.0020		4.30			0.3	20
Chromium	< 0.0050		mg/l	0.0050		BRL				20
Cadmium	**0.0003**	J	mg/l	0.0025		0.0004			15	20
Barium	**0.0674**		mg/l	0.0050		0.0674			0	20
Silver	< 0.0050		mg/l	0.0050		BRL				20
Arsenic	< 0.0040		mg/l	0.0040		BRL				20

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215917 - EPA200/SW7000 Series										
Blank (1215917-BLK1)						Prepared: 05-Jul-12 Analyzed: 06-Jul-12				
Mercury	< 0.00020		mg/l	0.00020						
LCS (1215917-BS1)						Prepared: 05-Jul-12 Analyzed: 06-Jul-12				
Mercury	**0.00531**		mg/l	0.00020	0.00500		106	85-115		
Duplicate (1215917-DUP1)			**Source: SB51831-01**			Prepared: 05-Jul-12 Analyzed: 06-Jul-12				
Mercury	< 0.00020		mg/l	0.00020		BRL				20
Matrix Spike (1215917-MS1)			**Source: SB51831-01**			Prepared: 05-Jul-12 Analyzed: 06-Jul-12				
Mercury	**0.00553**		mg/l	0.00020	0.00500	BRL	111	80-120		
Matrix Spike Dup (1215917-MSD1)			**Source: SB51831-01**			Prepared: 05-Jul-12 Analyzed: 06-Jul-12				
Mercury	**0.00559**		mg/l	0.00020	0.00500	BRL	112	80-120	1	20
Post Spike (1215917-PS1)			**Source: SB51831-01**			Prepared: 05-Jul-12 Analyzed: 06-Jul-12				
Mercury	**0.00553**		mg/l	0.00020	0.00500	BRL	111	85-115		

General Chemistry Parameters - Quality Control

Analyte(s)	Result	Flag	Units	*RDL	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch 1215382 - General Preparation										
Reference (1215382-SRM1)						Prepared & Analyzed: 27-Jun-12				
pH	**5.92**		pH Units		6.00		99	97.5-102.5		
Reference (1215382-SRM2)						Prepared & Analyzed: 27-Jun-12				
pH	**5.96**		pH Units		6.00		99	97.5-102.5		
Batch 1215554 - General Preparation										
Duplicate (1215554-DUP1)			**Source: SB51831-01**			Prepared & Analyzed: 28-Jun-12				
Flashpoint	**>150**		°F			>150				20
Reference (1215554-SRM1)						Prepared & Analyzed: 28-Jun-12				
Flashpoint	**80**		°F		81.0		99	95-105		
Batch 1215746 - General Preparation										
LCS (1215746-BS1)						Prepared & Analyzed: 02-Jul-12				
Specific Conductance (EC)	**978**		uS/cm	10.0	1000		98	95-105		
Duplicate (1215746-DUP1)			**Source: SB51831-01**			Prepared & Analyzed: 02-Jul-12				
Specific Conductance (EC)	**1310**		uS/cm	10.0		1300			0.4	5
Reference (1215746-SRM1)						Prepared & Analyzed: 02-Jul-12				
Specific Conductance (EC)	**204**		uS/cm	10.0	200		102	80-120		
Batch 1215795 - General Preparation										
Blank (1215795-BLK1)						Prepared & Analyzed: 02-Jul-12				
Reactivity	**Nonreactive**		mg/l							
Reactive Cyanide	< 25.0		mg/l	25.0						
Reactive Sulfide	< 50.0		mg/l	50.0						
Duplicate (1215795-DUP1)			**Source: SB51831-01**			Prepared & Analyzed: 02-Jul-12				
Reactivity	**Nonreactive**		mg/l			Nonreactive				200
Reactive Cyanide	< 25.0		mg/l	25.0		BRL				20
Reactive Sulfide	< 50.0		mg/l	50.0		BRL				20
Reference (1215795-SRM1)						Prepared & Analyzed: 02-Jul-12				
Reactive Cyanide	**3.52**		mg/l	25.0	100		4	0-200		
Reference (1215795-SRM2)						Prepared & Analyzed: 02-Jul-12				
Reactive Sulfide	**148**		mg/l	50.0	6700		2	0-200		

Analyte(s)	Column	% Breakdown	Limit
Batch S207872			
Performance Mix (S207872-PEM1)			
4,4'-DDT (p,p')	1	2.4	15.0
Endrin	1	3.6	15.0
4,4'-DDT (p,p')	2	5.5	15.0
Endrin	2	10.6	15.0
Performance Mix (S207872-PEM2)			
4,4'-DDT (p,p')	1	3.4	15.0
Endrin	1	4.9	15.0
4,4'-DDT (p,p')	2	6.3	15.0
Endrin	2	10.3	15.0
Batch S207901			
Performance Mix (S207901-PEM1)			
4,4'-DDT (p,p')	1	4.9	15.0
Endrin	1	9.5	15.0
4,4'-DDT (p,p')	2	5.4	15.0
Endrin	2	11.5	15.0
Performance Mix (S207901-PEM2)			
4,4'-DDT (p,p')	1	4.4	15.0
Endrin	1	6.9	15.0
4,4'-DDT (p,p')	2	5.1	15.0
Endrin	2	9.5	15.0

Notes and Definitions

GS1	Sample dilution required for high concentration of target analytes to be within the instrument calibration range.
QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample.
QM9	The spike recovery for this QC sample is outside the established control limits. The sample results for the QC batch were accepted based on LCS/LCSD or SRM recoveries within the control limits.
QR2	The RPD result exceeded the QC control limits; however, both percent recoveries were acceptable. Sample results for the QC batch were accepted based on percent recoveries and completeness of QC data.
QR6	The RPD exceeded the QC control limits; however precision is demonstrated with acceptable RPD values for MS/MSD.
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).
pH	The method for pH does not stipulate a specific holding time other than to state that the samples should be analyzed as soon as possible. For aqueous samples the 40 CFR 136 specifies a holding time of 15 minutes from sampling to analysis. Therefore all aqueous pH samples not analyzed in the field are considered out of hold time at the time of sample receipt. All soil samples are analyzed as soon as possible after sample receipt.

A Matrix Spike and Matrix Spike Duplicate (MS/MSD) for MADEP EPH CAM may not have been analyzed with the samples in this work order. According to the method these spikes are performed only when requested by the client. If requested the spike recoveries are included in the batch QC data.

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.

Continuing Calibration Verification: The calibration relationship established during the initial calibration must be verified at periodic intervals. Concentrations, intervals, and criteria are method specific.

Validated by:
June O'Connor
Nicole Leja
Rebecca Merz

SB51831

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

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

Report To: IRWIN Engineers, Inc.
33 W. Central St.
Natick, MA 01760

Telephone #: (508) 653-8007
Project Mgr. J. Andrew Irwin

Invoice To: SAME

P.O. No.: _____ RQN: _____

Project No.: 413-06F/2012/001
Site Name: Cell Signaling
Location: Beverly State: MA
Sampler(s): NGI

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= Deionized Water 10=H_3PO_4 11=_____ 12=_____

List preservative code below: 2 — 2 4 — — —

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	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VOCs	PCBs 3450C	EPH	RCRA 8 metals*	SVOCs 8270 ABN	Pesticides/Herbicides	Conductivity	reactivity, pH, flashpoint**	
51831-01	GW-disposal	6/26/12	11:45	G	WW	3	5		1	X	X	X	X	X	X	X		
02	TB-1	6/26/12	—	—	—												X	

HCl-preserved for bank

QA/QC Reporting Notes:
* additional charges may apply

MA DEP MCP CAM Report: Yes ☑ No ☐
CT DPH RCP Report: Yes ☐ No ☐

QA/QC Reporting Level
☑ Standard ☐ No QC ☐ DQA*
☐ NY ASP A* ☐ NY ASP B*
☐ NJ Reduced* ☐ NJ Full*
☐ TIER II* ☐ TIER IV*
☐ Other _____

State-specific reporting standards: GW-1/GW-2/GW-3

* total metals, unfiltered sample
** field pH 7.06

Relinquished by:	Received by:	Date:	Time:	Temp°C
[signature]	[signature]	6/27/12	1530	1.4

☒ EDD Format pdf
☒ E-mail to airwin@irwinengineers.com

Condition upon receipt:
☐ Ambient ☐ Iced ☑ Refrigerated ☐ DI VOA Frozen ☐ Soil Jar Frozen

1 of 1 SB51831

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
- [x] Standard TAT - 7 to 10 business days
- [ ] Rush TAT - Date Needed: _____
- All TATs subject to laboratory approval.
- Min. 24-hour notification needed for rushes.
- Samples disposed of after 60 days unless otherwise instructed.

Report To: IRWIN Engineers, Inc.
33 W. Central St.
Natick, MA 01760

Telephone #: (508) 653-8007
Project Mgr. J. Andrew Irwin

Invoice To: SAME

P.O. No.: _____ RQN: _____

Project No.: 413-06F/2012/001
Site Name: Cell Signaling
Location: Beverly State: MA
Sampler(s): NGI

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=Deionized Water 10=H_3PO_4 11=_____ 12=_____

List preservative code below: 2 — 2 4 — — —

QA/QC Reporting Notes:
* additional charges may apply

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	Containers: # of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Analyses: VOCs	PCBs 3450C	EPH	RCRA 8 metals*	SVOCs 8270 ABN	Pesticides/Herbicides	conductivity, reactivity, flashpoint	**	Preservative
51831-01	GW-disposal	6/26/12	11:45	G	WW	3	5		1	X	X	X	X	X	X	X	X	HCl-preserved
02	TB-1	6/26/12	—	—	—												X	MP blank

MA DEP MCP CAM Report: Yes [x] No [ ]
CT DPH RCP Report: Yes [ ] No [ ]

QA/QC Reporting Level
[x] Standard [ ] No QC [ ] DQA* [ ] NYASP A* [ ] NYASP B* [ ] NJ Reduced* [ ] NJ Full* [ ] TIER II* [ ] TIER IV*
[ ] Other _____

State-specific reporting standards: GW-1/GW-2/GW-3

* total metals unfiltered sample

** field pH 7.06 percient reg

Relinquished by:	Received by:	Date:	Time:	Temp°C
Isabelle George	DCard	6/27/13	1600	
		6/27/13	1530	1.4

[x] EDD Format pdf
[x] E-mail to airwin@irwinengineers.com

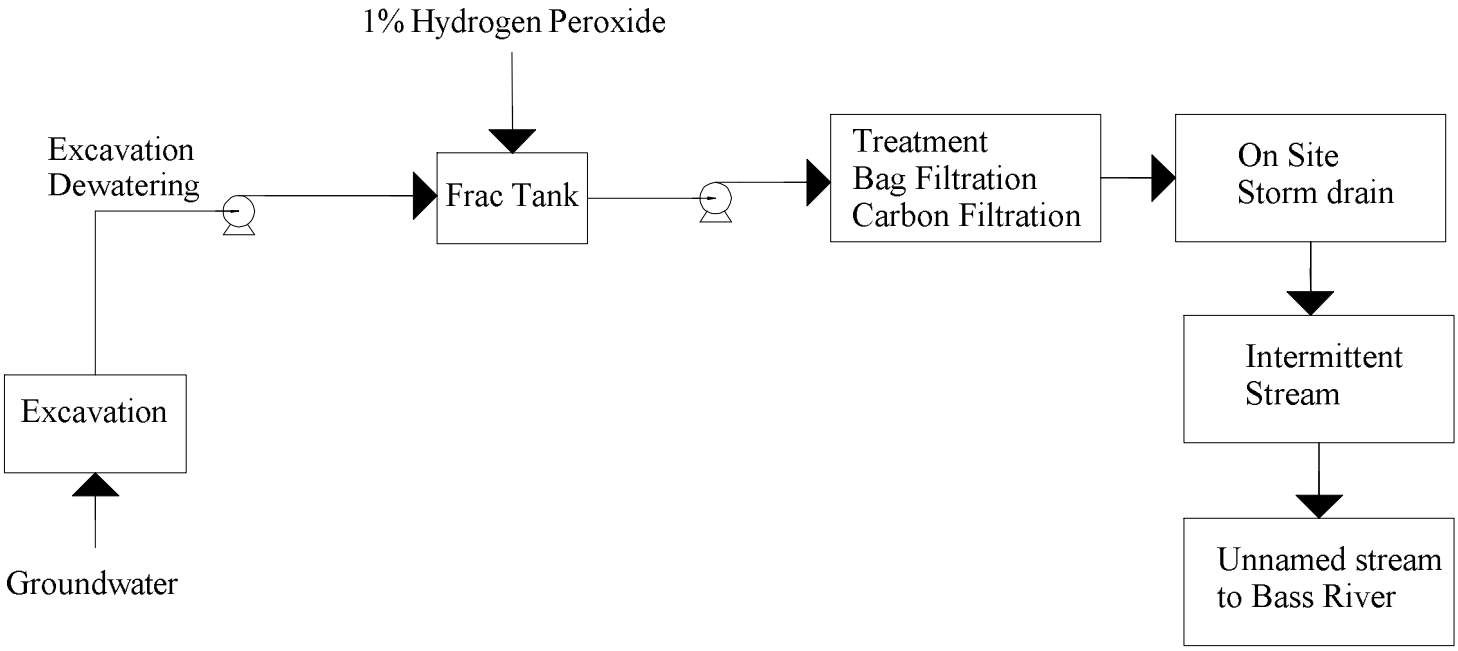
Condition upon receipt:
[ ] Ambient [ ] Iced [x] Refrigerated [ ] DI VOA Frozen [ ] Soil Jar Frozen

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

11 Almgren Drive
Agawam, MA 01001
(413) 789-9018

This preceding chain of custody has been amended to include the client requested additional analyses as noted below:

Laboratory ID	*Client ID*	*Analysis*	*Added*
SB51831-01	GW-Disposal	Total Iron by ICP	8/2/2012
SB51831-01	GW-Disposal	Total Magnesium by ICP	8/2/2012
SB51831-01	GW-Disposal	Total Manganese by ICP	8/2/2012



IRWIN Engineers
CHEMICAL & ENVIRONMENTAL
33 West Central Street
Natick, MA 01760
(508) 653-8007

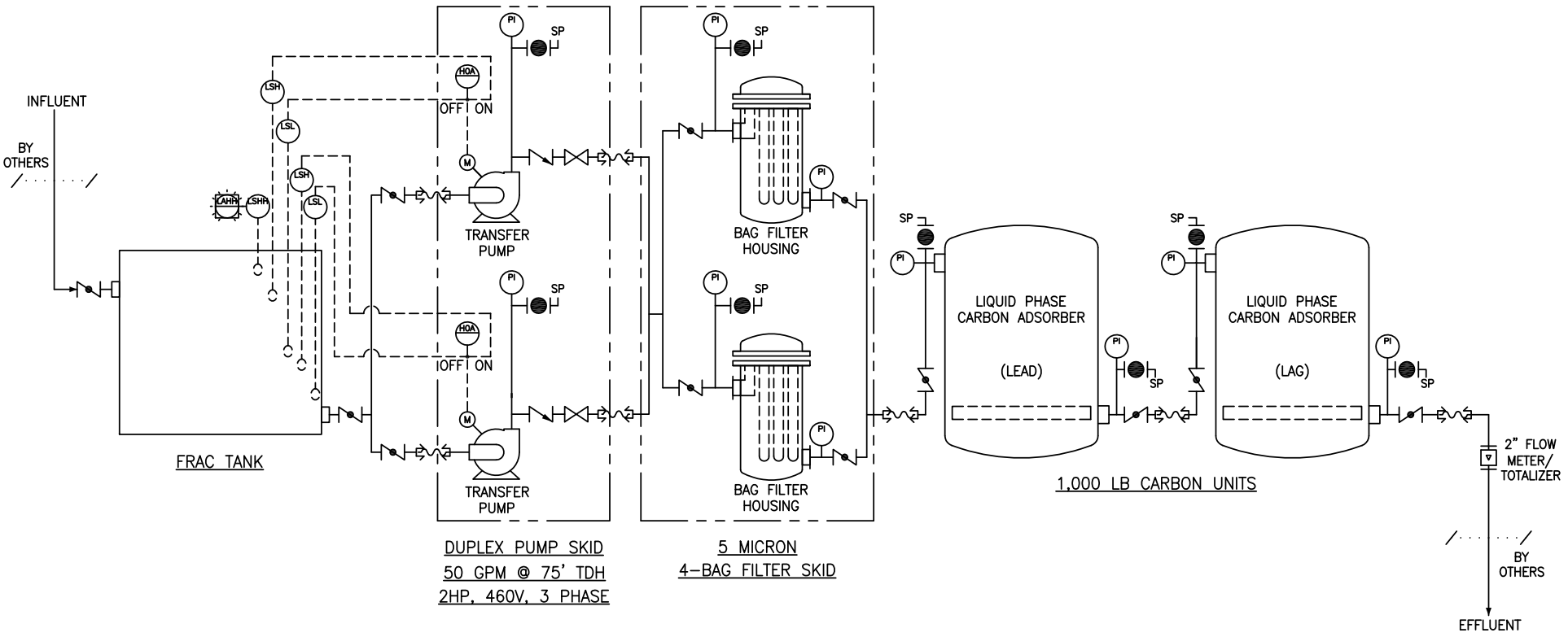
DRAWING BY: KMM
CHECKED BY: JAI
APPROVED BY: JAI

CLIENT: CELL SIGNALING TECHNOLOGY, INC.
3 TRASK LANE
DANVERS, MA

TITLE: PROCESS FLOW DIAGRAM
PROPOSED TREATMENT SYSTEM
32 TOZER ROAD, BEVERLY MA 01915

SIZE	CAGE CODE	DWG NO	REV
A		413-06F D001.TCW P1	-

SCALE	DATE	SHEET
NTS	08-20-2012	1 / 1



LEGEND

- PROCESS PIPING
- FLEXIBLE HOSE
- FLOW DIRECTION
- PIPE CROSS OVER
- LEVEL FLOAT SWITCH
- (M) MOTOR
- FLOW METER
- BALL VALVE (NORMALLY CLOSE)
- BUTTERFLY VALVE
- CHECK VALVE
- GATE VALVE (OPEN)
- SP SAMPLE PORT
- CAM LOCK COUPLING
- (PI) PRESSURE GAGE
- (LAHH) LEVEL ALARM HIGH HIGH
- (LSH) LEVEL SWITCH HIGH
- (LSHH) LEVEL SWITCH HIGH HIGH
- (LSL) LEVEL SWITCH LOW
- (HOA) HAND/OFF/AUTO SWITCH

NOTES:
1) MAXIMUM FLOWRATE = 50 GPM
2) SYSTEM FOOTPRINT APPROX. 10' X 75'
3) NOT ALL VALVES, INSTRUMENTATION AND PIPING, ETC. SHOWN FOR CLARITY.
4) POWER REQUIREMENTS (BY OTHERS) – 460V, 3 PHASE, 20 AMPS.

NO.	REVISIONS	DATE
A	TYPICAL	06/29/10

STANDARD PROCESS & INSTRUMENTATION DIAGRAM

50 GPM TEMPORARY TREATMENT SYSTEM W/ FRAC TANK

SCALE: NTS	APPROVED BY: JB	DRAWN BY: RS	
DATE: 06/29/10			

GROUND/WATER TREATMENT & TECHNOLOGY
P.O. BOX 1174
DENVILLE, NJ 07834

DWG SIZE: A	SHEET: 1 OF 1	DRAWING NUMBER: ST-0201-PD	A

T:\Cad Files\Rentals - STANDARD DRAWINGS\TYPICAL P&ID'S\ST-0201-PD Rev-A 50 GPM System with Frac Tank.dwg

Hydrogen Peroxide, 3%

MSDS # 345.00

ScholAR Chemistry

Section 1: Product and Company Identification

Hydrogen Peroxide, 3%

Synonyms/General Names: N/A
Product Use: For educational use only
Manufacturer: Columbus Chemical Industries, Inc., Columbus, WI 53925.

24 Hour Emergency Information Telephone Numbers

CHEMTREC (USA): 800-424-9300 **CANUTEC (Canada): 613-424-6666**

ScholAR Chemistry; 5100 W. Henrietta Rd, Rochester, NY 14586; (866) 260-0501; www.Scholarchemistry.com

Section 2: Hazards Identification

Clear, colorless liquid, slight odor

HMIS (0 to4)

Health	**1**
Fire Hazard	**0**
Reactivity	**1**

WARNING! Oxidizing agent and body tissue irritant.
Target organs: None known.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Section 3: Composition / Information on Ingredients

Hydrogen Peroxide, 35% (7722-84-1), 3%. Water (7732-18-5), 97%.

Section 4: First Aid Measures

Always seek professional medical attention after first aid measures are provided.

Eyes: Immediately flush eyes with excess water for 15 minutes, lifting lower and upper eyelids occasionally.
Skin: Immediately flush skin with excess water for 15 minutes while removing contaminated clothing.
Ingestion: Call Poison Control immediately. ***Do not induce vomiting***. Rinse mouth with cold water. Give victim 1-2 cups of water or milk to drink.
Inhalation: Remove to fresh air. If not breathing, give artificial respiration.

Section 5: Fire Fighting Measures

Noncombustible solution. When heated to decomposition, produces oxygen gas.

Protective equipment and precautions for firefighters: Use foam or dry chemical to extinguish fire. Firefighters should wear full fire fighting turn-out gear and respiratory protection (SCBA). Cool container with water spray. Material is not sensitive to mechanical impact or static discharge.

Section 6: Accidental Release Measures

Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Remove all ignition sources and ventilate area. Contain spill with sand or absorbent material and place material in a sealed bag or container for disposal. Wash spill area after pickup is complete. See Section 13 for disposal information.

Section 7: Handling and Storage Green

Handling: Use with adequate ventilation and do not breathe dust or vapor. Avoid contact with skin, eyes, or clothing. Wash hands thoroughly after handling.
Storage: Store in General Storage Area [Green Storage] with other items with no specific storage hazards. Store in a cool, dry, well-ventilated, locked store room away from incompatible materials.

Section 8: Exposure Controls / Personal Protection

Use ventilation to keep airborne concentrations below exposure limits. Have approved eyewash facility, safety shower, and fire extinguishers readily available. Wear chemical splash goggles and chemical resistant clothing such as gloves and aprons. Wash hands thoroughly after handling material and before eating or drinking. Use NIOSH-approved respirator with an acid/organic cartridge. Exposure guidelines Hydrogen Peroxide: OSHA PEL: 1.4 mg/m^3; ACGIH TLV: 1.4 mg/m^3; STEL:N/A.

Section 9: Physical and Chemical Properties

Molecular formula	H_2O_2.	**Appearance**	Clear, colorless liquid.	
Molecular weight	34.01.	**Odor**	Slight odor.	
Specific Gravity	1.01 g/mL @ 20°C.	**Odor Threshold**	N/A.	
Vapor Density (air=1)	0.7.	**Solubility**	Completely soluble in water.	
Melting Point	0°C.	**Evaporation rate**	< 1	*(Butyl acetate = 1).*
Boiling Point/Range	100°C.	**Partition Coefficient**	N/A.	*(log P_{OW}).*
Vapor Pressure (20°C)	14.	**pH**	N/A.	
Flash Point:	N/A.	**LEL**	N/A.	
Autoignition Temp.:	N/A.	**UEL**	N/A.	

Section 10: Stability and Reactivity

Avoid heat and ignition sources.
Stability: Instable, many materials will catalyze the decomposition of hydrogen peroxide to produce oxygen, water, and heat.
Incompatibility: Reducing agents, alkalis, organic materials, metals, acids, bases, metal salts, dust and dirt contaminants and flammable substances.
Shelf life: Fair shelf life, store in a cool, dry environment.

Section 11: Toxicology Information

Acute Symptoms/Signs of exposure: ***Eyes***: Redness, tearing, itching, burning, conjunctivitis. ***Skin***: Redness, itching. ***Ingestion***: Irritation and burning sensations of mouth and throat, nausea, vomiting and abdominal pain. ***Inhalation***: Irritation of mucous membranes, coughing, wheezing, shortness of breath.
Chronic Effects: Repeated/prolonged skin contact may cause thickening, blackening or cracking. Repeated eye exposure may cause corneal erosion or loss of vision.
Sensitization: none expected
Hydrogen Peroxide: LD50 [oral, rat]; N/A; LC50 [rat]; N/A; LD50 Dermal [rabbit]; N/A
Material has not been found to be a carcinogen nor produce genetic, reproductive, or developmental effects.

Section 12: Ecological Information

Ecotoxicity (aquatic and terrestrial): Toxic to beneficial microorganisms (e.g. soil and sewage treatment microorganisms). Do not release to environment.

Section 13: Disposal Considerations

Check with all applicable local, regional, and national laws and regulations. Local regulations may be more stringent than regional or national regulations. Small amounts of this material may be suitable for sanitary sewer or trash disposal.

Section 14: Transport Information

DOT Shipping Name:	Not regulated by DOT.	**Canada TDG:**	Not regulated by TDG .
DOT Hazard Class:		**Hazard Class:**	
Identification Number:		**UN Number:**	

Section 15: Regulatory Information

EINECS: Listed (231-765-0) .
TSCA: All components are listed or are exempt.
WHMIS Canada: Not WHMIS controlled.
California Proposition 65: Not listed.

The product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Section 16: Other Information

Current Issue Date: December 21, 2011