



5301 Northshore Drive
North Little Rock, AR 72118
Telephone: 501-682-0744

Client Report For: Exxon Oil Spill 2014 1762-1768
Attention:
Client Address:

,

Report Date: June 11, 2014
LAB ID: AR14MAY22-01
Comment:

Approved By: _____

Date: June 11, 2014

Client: Special Samples **Client Sample ID:** WS-001
Lab ID: 2014-1762 **Collection Date:** 5/22/2014 10:34:00 AM
Matrix: Water

Analyses

<i>Dissolved Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 14060311 Run: 1</i>			
	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	34.8	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.58	0.5	0.2		ug/L
Barium	8.63	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	18.3	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	4.70	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.66	0.5	0.2		ug/L
Iron	116	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.67	0.02	0.01		mg/L
Manganese	8.50	0.3	0.07		ug/L
Nickel	0.71	0.5	0.15		ug/L
Potassium	2.47	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.54	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	9.70	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	<1	1	0.3		ug/L
Hardness	18.6	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 28 2014 2:30PM				

Total Metals by EPA 200.8 *EPA 200.8* *Batch: 14060312 Run: 1*

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	86.3	20	20		ug/L
Antimony	<10	10	5		ug/L
Arsenic	<1	1	0.5		ug/L
Barium	14.2	10	2.0		ug/L
Beryllium	<0.5	0.5	0.1		ug/L
Boron	<25	25	5.0		ug/L
Cadmium	<1	1	0.3		ug/L
Calcium	4.72	0.04	0.04		mg/L
Chromium	<1	1	0.3		ug/L
Cobalt	<1	1	0.5		ug/L
Copper	2.19	1	0.5		ug/L
Iron	476	20	10.0		ug/L
Lead	<1	1	0.1		ug/L
Magnesium	1.93	0.1	0.1		mg/L
Manganese	159	1	0.2		ug/L
Nickel	<2.5	2.5	0.5		ug/L
Potassium	2.56	1	0.05		mg/L
Selenium	<2	2	0.5		ug/L
Silver	<5	5	1.0		ug/L
Sodium	7.47	0.04	0.02		mg/L
Thallium	<2.5	2.5	0.05		ug/L
Vanadium	<2.5	2.5	1.0		ug/L
Zinc	<3	3	2.0		ug/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 30 2014 7:53PM				
Prep By					
Prep Date/Time					

Client: Special Samples

Client Sample ID: WS-002

Lab ID: 2014-1763

Collection Date: 5/22/2014 11:12:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14060311 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	<20	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	8.73	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	19.8	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	4.78	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.88	0.5	0.2		ug/L
Iron	38.4	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.74	0.02	0.01		mg/L
Manganese	1.60	0.3	0.07		ug/L
Nickel	0.72	0.5	0.15		ug/L
Potassium	2.62	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.28	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	10.2	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	<1	1	0.3		ug/L
Hardness	19.1	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 28 2014 2:56PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14060312 Run: 1

Result Reporting MDL Qual Unit

		Limit		
Aluminum	31.5	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	13.8	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	4.80	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	<1	1	0.5	ug/L
Iron	332	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.95	0.1	0.1	mg/L
Manganese	122	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	2.70	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	7.88	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	<3	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 30 2014 8:32PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: WS-005

Lab ID: 2014-1764

Collection Date: 5/22/2014 11:56:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14060311 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	21.0	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.69	0.5	0.2		ug/L
Barium	7.45	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	19.1	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	4.72	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.79	0.5	0.2		ug/L
Iron	101	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.72	0.02	0.01		mg/L
Manganese	2.44	0.3	0.07		ug/L
Nickel	0.83	0.5	0.15		ug/L
Potassium	2.68	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.19	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	10.1	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	<1	1	0.3		ug/L
Hardness	18.9	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 28 2014 3:02PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14060312 Run: 1

Result **Reporting** **MDL** **Qual** **Unit**

Arkansas Department of Environmental Quality
 5301 Northshore Drive
 North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
 Ruehr@adeq.state.ar.us
 501-682-0955

Limit

Aluminum	53.5	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	12.0	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	4.74	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	1.04	1	0.5	ug/L
Iron	426	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.90	0.1	0.1	mg/L
Manganese	100.0	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	2.78	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	7.51	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	<3	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 30 2014 8:39PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: WS-008

Lab ID: 2014-1765

Collection Date: 5/22/2014 12:15:00 PM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14060311 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	<20	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	18.9	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	29.6	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	11.9	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	0.92	0.5	0.2		ug/L
Iron	25.8	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	5.80	0.02	0.01		mg/L
Manganese	35.6	0.3	0.07		ug/L
Nickel	1.02	0.5	0.15		ug/L
Potassium	1.81	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	3.14	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	12.8	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	3.39	1	0.3		ug/L
Hardness	53.5	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 28 2014 3:09PM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 14060312 Run: 1

Result Reporting MDL Qual Unit

		Limit		
Aluminum	269	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	<1	1	0.5	ug/L
Barium	21.4	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	31.7	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	11.8	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	1.28	1	0.5	ug/L
Iron	216	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	6.45	0.1	0.1	mg/L
Manganese	46.8	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	1.88	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	14.4	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	5.53	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 30 2014 8:45PM			
Prep By				
Prep Date/Time				

Client: Special Samples	Client Sample ID: WS-BKG-002
Lab ID: 2014-1766	Collection Date: 5/22/2014 12:35:00 PM
Matrix: Water	

Analyses

<i>Dissolved Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 14060311 Run: 1</i>			
	Result	Reporting Limit	MDL	Qual	Unit
Aluminum	83.3	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	1.07	0.5	0.2		ug/L
Barium	29	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	13.7	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	6.56	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	0.72	0.5	0.05		ug/L
Copper	1.18	0.5	0.2		ug/L
Iron	652	20	5.0		ug/L
Lead	0.47	0.3	0.02		ug/L
Magnesium	2.28	0.02	0.01		mg/L
Manganese	101	0.3	0.07		ug/L
Nickel	2.09	0.5	0.15		ug/L
Potassium	1.70	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	7.78	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	15.9	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	0.57	0.5	0.3		ug/L
Zinc	6.01	1	0.3		ug/L
Hardness	25.8	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 28 2014 3:15PM				

<i>Total Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 14060312 Run: 1</i>			
	Result	Reporting	MDL	Qual	Unit

Limit

Aluminum	585	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	1.84	1	0.5	ug/L
Barium	40.6	10	2.0	ug/L
Beryllium	<0.5	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	<1	1	0.3	ug/L
Calcium	6.96	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	1.45	1	0.5	ug/L
Copper	2.32	1	0.5	ug/L
Iron	2600	20	10.0	ug/L
Lead	2.52	1	0.1	ug/L
Magnesium	2.63	0.1	0.1	mg/L
Manganese	157	1	0.2	ug/L
Nickel	2.84	2.5	0.5	ug/L
Potassium	1.84	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	9.89	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	<2.5	2.5	1.0	ug/L
Zinc	10.4	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 30 2014 8:52PM			
Prep By				
Prep Date/Time				

Client: Special Samples

Client Sample ID: Metals Field Blank

Lab ID: 2014-1768

Collection Date: 5/22/2014 10:35:00 AM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 14060311 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	<20	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	<2	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	<5	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	0.050	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	<0.5	0.5	0.05		ug/L
Copper	2.46	0.5	0.2		ug/L
Iron	<20	20	5.0		ug/L
Lead	0.61	0.3	0.02		ug/L
Magnesium	<0.02	0.02	0.01		mg/L
Manganese	<0.3	0.3	0.07		ug/L
Nickel	<0.5	0.5	0.15		ug/L
Potassium	<0.02	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	<0.05	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	0.028	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	<0.5	0.5	0.3		ug/L
Zinc	3.07	1	0.3		ug/L
Hardness	<1	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 28 2014 3:22PM				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

Client: Special Samples

Client Sample ID: WS-001

Lab ID: 2014-1762

Collection Date: 5/22/2014 10:34:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14052301 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	8.53	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	5/23/2014 8:53				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

Client: Special Samples

Client Sample ID: WS-002

Lab ID: 2014-1763

Collection Date: 5/22/2014 11:12:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14052301 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	8.46	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	5/23/2014 8:58				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

Client: Special Samples

Client Sample ID: WS-005

Lab ID: 2014-1764

Collection Date: 5/22/2014 11:56:00 AM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14052301 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	7.01	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	5/23/2014 9:00				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

Client: Special Samples

Client Sample ID: WS-008

Lab ID: 2014-1765

Collection Date: 5/22/2014 12:15:00 PM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14052301 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	14.1	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	5/23/2014 9:04				

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
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501-682-0955

Client: Special Samples

Client Sample ID: WS-BKG-002

Lab ID: 2014-1766

Collection Date: 5/22/2014 12:35:00 PM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 14052301 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	37.2	0.02	0.02		NTU
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	5/23/2014 9:07				

Client: Special Samples

Client Sample ID: WS-001

Lab ID: 2014-1762

Collection Date: 5/22/2014 10:34:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14052706 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14052704 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	31.5	40-110			%
Nitrobenzene-d5 (% Recovery)	56.7	50-110			%
2-Fluorobiphenyl (% Recovery)	54.3	50-110			%
2,4,6-Tribromophenol (% Recovery)	63.7	40-110			%
Terphenyl-d14 (% Recovery)	74.4	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	5/27/2014 12:02 PM			
Prep By	Ed Harris			
Prep Date/Time	5/23/2014 08:00			

Client: Special Samples

Client Sample ID: WS-002

Lab ID: 2014-1763

Collection Date: 5/22/2014 11:12:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14052706 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14052704 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	29.4	40-110			%
Nitrobenzene-d5 (% Recovery)	54.7	50-110			%
2-Fluorobiphenyl (% Recovery)	48.0	50-110			%
2,4,6-Tribromophenol (% Recovery)	52.8	40-110			%
Terphenyl-d14 (% Recovery)	58.1	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	5/27/2014 12:31 PM			
Prep By	Ed Harris			
Prep Date/Time	5/23/2014 08:00			

Client: Special Samples

Client Sample ID: WS-005

Lab ID: 2014-1764

Collection Date: 5/22/2014 11:56:00 AM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14052706 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14052704 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	30.7	40-110			%
Nitrobenzene-d5 (% Recovery)	52.2	50-110			%
2-Fluorobiphenyl (% Recovery)	52.1	50-110			%
2,4,6-Tribromophenol (% Recovery)	56.6	40-110			%
Terphenyl-d14 (% Recovery)	61.8	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	5/27/2014 12:59 PM			
Prep By	Ed Harris			
Prep Date/Time	5/23/2014 08:00			

Client: Special Samples

Client Sample ID: WS-008

Lab ID: 2014-1765

Collection Date: 5/22/2014 12:15:00 PM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 14052706 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14052704 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	30.5	40-110			%
Nitrobenzene-d5 (% Recovery)	48.5	50-110			%
2-Fluorobiphenyl (% Recovery)	48.3	50-110			%
2,4,6-Tribromophenol (% Recovery)	59.6	40-110			%
Terphenyl-d14 (% Recovery)	62.0	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	5/27/2014 1:28 PM			
Prep By	Ed Harris			
Prep Date/Time	5/23/2014 08:00			

Client: Special Samples	Client Sample ID: WS-BKG-002
Lab ID: 2014-1766	Collection Date: 5/22/2014 12:35:00 PM
Matrix: Water	

Analyses

Oil and Grease

EPA1664

Batch: 14052706 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 14052704 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
2-Fluorophenol (% Recovery)	29.1	40-110			%
Nitrobenzene-d5 (% Recovery)	53.1	50-110			%
2-Fluorobiphenyl (% Recovery)	48.4	50-110			%
2,4,6-Tribromophenol (% Recovery)	63.3	40-110			%
Terphenyl-d14 (% Recovery)	66.1	50-110			%
Methyl Methanesulfonate	<0.2	0.2	100		ug/L
Ethyl methanesulfonate	<0.2	0.2	100		ug/L
Phenol	<0.2	0.2	100		ug/L
Aniline	<0.2	0.2	100		ug/L
Bis(2-chloroethyl)ether	<0.2	0.2	100		ug/L
2-Chlorophenol	<0.2	0.2	100		ug/L
1,3-Dichlorobenzene	<0.12	0.12	60		ug/L
1,4-Dichlorobenzene	<0.12	0.12	60		ug/L
Benzyl alcohol	<0.16	0.16	80		ug/L
1,2-Dichlorobenzene	<0.12	0.12	60		ug/L
2-Methylphenol	<0.1	0.1	50		ug/L
Acetophenone	<0.1	0.1	50		ug/L
4-Methylphenol	<0.1	0.1	50		ug/L
N-Nitrosodi-n-propylamine	<0.2	0.2	100		ug/L
Hexachloroethane	<0.2	0.2	100		ug/L
Nitrobenzene	<0.2	0.2	100		ug/L
N-Nitrosopiperidine	<0.2	0.2	100		ug/L
Isophorone	<0.1	0.1	50		ug/L

2-Nitrophenol	<0.3	0.3	150	ug/L
2,4-Dimethylphenol	<0.1	0.1	50	ug/L
Bis(2-chloroethoxy)methane	<0.2	0.2	100	ug/L
2,4-Dichlorophenol	<0.2	0.2	100	ug/L
1,2,4-Trichlorobenzene	<0.12	0.12	60	ug/L
Naphthalene	<0.08	0.08	40	ug/L
4-Chloroaniline	<0.1	0.1	50	ug/L
2,6-Dichlorophenol	<0.2	0.2	100	ug/L
Hexachlorobutadiene	<0.2	0.2	100	ug/L
N-Nitrosodibutylamine	<0.2	0.2	100	ug/L
4-Chloro-3-methylphenol	<0.16	0.16	80	ug/L
2-Methylnaphthalene	<0.1	0.1	50	ug/L
1,2,4,5-Tetrachlorobenzene	<0.1	0.1	50	ug/L
Hexachlorocyclopentadiene	<0.16	0.16	80	ug/L
2,4,6-Trichlorophenol	<0.2	0.2	100	ug/L
2,4,5-Trichlorophenol	<0.2	0.2	100	ug/L
2-Chloronaphthalene	<0.1	0.1	50	ug/L
1-Chloronaphthalene	<0.1	0.1	50	ug/L
2-Nitroaniline	<0.2	0.2	100	ug/L
Dimethyl phthalate	<0.2	0.2	100	ug/L
2,6-Dinitrotoluene	<0.2	0.2	100	ug/L
Acenaphthylene	<0.08	0.08	40	ug/L
3-Nitroaniline	<0.2	0.2	100	ug/L
Acenaphthene	<0.1	0.1	50	ug/L
2,4-Dinitrophenol	<4	4	2000	ug/L
Pentachlorobenzene	<0.12	0.12	60	ug/L
4-Nitrophenol	<2	2	1000	ug/L
Dibenzofuran	<0.1	0.1	50	ug/L
2,4-Dinitrotoluene	<0.2	0.2	100	ug/L
2,3,4,6-Tetrachlorophenol	<0.6	0.6	300	ug/L
Diethyl phthalate	<0.2	0.2	100	ug/L
Fluorene	<0.1	0.1	50	ug/L
4-Chlorophenyl phenyl ether	<0.1	0.1	50	ug/L
4-Nitroaniline	<0.2	0.2	100	ug/L
4,6-Dinitro-2-methylphenol	<6	6	3000	ug/L
Diphenylamine	<0.1	0.1	50	ug/L
Azobenzene	<0.08	0.08	40	ug/L
4-Bromophenyl phenyl ether	<0.2	0.2	100	ug/L
Hexachlorobenzene	<0.16	0.16	80	ug/L
Pentachlorophenol	<1	1	500	ug/L

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Pentachloronitrobenzene	<0.2	0.2	100	ug/L
Pronamide	<0.2	0.2	100	ug/L
Phenanthrene	<0.08	0.08	40	ug/L
Anthracene	<0.08	0.08	40	ug/L
Carbazole	<0.1	0.1	50	ug/L
Di-n-butyl phthalate	<0.2	0.2	100	ug/L
Fluoranthene	<0.08	0.08	40	ug/L
Pyrene	<0.08	0.08	40	ug/L
Dimethylaminoazobenzene	<0.2	0.2	100	ug/L
Butyl benzyl phthalate	<0.3	0.3	150	ug/L
Benzo (a) anthracene	<0.1	0.1	50	ug/L
Chrysene	<0.1	0.1	50	ug/L
Bis(2-ethylhexyl)phthalate	<0.3	0.3	150	ug/L
Di-n-octyl phthalate	<0.3	0.3	150	ug/L
Benzo (b) fluoranthene	<0.16	0.16	80	ug/L
7,12-Dimethylbenz (a) anthracene	<0.2	0.2	100	ug/L
Benzo (k) fluoranthene	<0.16	0.16	80	ug/L
Benzo (a) pyrene	<0.16	0.16	80	ug/L
3-Methylcholanthrene	<0.2	0.2	100	ug/L
Indeno (1,2,3-cd) pyrene	<0.2	0.2	100	ug/L
Dibenzo (a,h) anthracene	<0.16	0.16	80	ug/L
Benzo (g,h,i) perylene	<0.16	0.16	80	ug/L
Initial Volume	500			mL
Final Volume	1			mL
Dilution Factor	1			
Analyzed By	Ed Harris			
Analysis Date/Time	5/27/2014 1:56 PM			
Prep By	Ed Harris			
Prep Date/Time	5/23/2014 08:00			

Client: Special Samples

Client Sample ID: WS-001

Lab ID: 2014-1762

Collection Date: 5/22/2014 10:34:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14052901 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	99.8	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	99.4	70-130			%
<i>Toluene-d8 (% Recovery)</i>	94.8	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	108	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/28/2014 1:44 PM			

Client: Special Samples

Client Sample ID: WS-002

Lab ID: 2014-1763

Collection Date: 5/22/2014 11:12:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14052901 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	103	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	101	70-130			%
<i>Toluene-d8 (% Recovery)</i>	99.3	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	108	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/28/2014 12:03 PM			

Client: Special Samples

Client Sample ID: WS-005

Lab ID: 2014-1764

Collection Date: 5/22/2014 11:56:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14052901 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	107	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	104	70-130			%
<i>Toluene-d8 (% Recovery)</i>	101	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	118	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/28/2014 12:29 PM			

Client: Special Samples

Client Sample ID: WS-008

Lab ID: 2014-1765

Collection Date: 5/22/2014 12:15:00 PM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14052901 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	106	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	103	70-130			%
<i>Toluene-d8 (% Recovery)</i>	98.8	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	110	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/28/2014 12:54 PM			

Client: Special Samples	Client Sample ID: WS-BKG-002
Lab ID: 2014-1766	Collection Date: 5/22/2014 12:35:00 PM
Matrix: Water	

Analyses

<i>Volatile Organics by GCMS</i>	<i>EPA 8260C</i>	<i>Batch: 14052901 Run: 1</i>			
	Result	Reporting Limit	MDL	Qual	Unit
Dibromofluoromethane (% Recovery)	107	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	103	70-130			%
Toluene-d8 (% Recovery)	100	70-130			%
4-Bromofluorobenzene (% Recovery)	110	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/28/2014 1:19 PM			

Client: Special Samples

Client Sample ID: Volatile Trip Blank

Lab ID: 2014-1767

Collection Date: 5/22/2014 8:39:00 AM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 14052901 Run: 1

	Result	Reporting Limit	MDL	Qual	Unit
<i>Dibromofluoromethane (% Recovery)</i>	108	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	104	70-130			%
<i>Toluene-d8 (% Recovery)</i>	102	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	112	70-130			%
Dichlorodifluoromethane	<1.12	1.12	1.12		ug/L
Chloromethane	<0.58	0.58	0.58		ug/L
Vinyl chloride	<0.82	0.82	0.82		ug/L
Bromomethane	<3.9	3.9	3.90		ug/L
Chloroethane	<2.68	2.68	2.68		ug/L
Trichlorofluoromethane	<0.51	0.51	0.51		ug/L
1,1-Dichloroethene	<0.43	0.43	0.43		ug/L
Acetone	<10.5	10.5	10.5		ug/L
Methylene chloride	<2.5	2.5	2.5		ug/L
Methyl tert-butyl ether	<0.83	0.83	0.83		ug/L
trans-1,2-Dichloroethene	<0.59	0.59	0.59		ug/L
1,1-Dichloroethane	<0.42	0.42	0.42		ug/L
Methyl ethyl ketone	<12.8	12.8	12.8		ug/L
cis-1,2-Dichloroethene	<1.15	1.15	1.15		ug/L
2,2-Dichloropropane	<0.81	0.81	0.81		ug/L
Bromochloromethane	<0.66	0.66	0.66		ug/L
Chloroform	<0.27	0.27	0.27		ug/L
1,1,1-Trichloroethane	<0.46	0.46	0.46		ug/L
1,1-Dichloropropene	<0.59	0.59	0.59		ug/L
Carbon tetrachloride	<0.6	0.6	0.6		ug/L
Benzene	<0.66	0.66	0.66		ug/L
1,2-Dichloroethane	<1.15	1.15	1.15		ug/L
Trichloroethene	<0.6	0.6	0.60		ug/L
1,2-Dichloropropane	<0.98	0.98	0.98		ug/L
Dibromomethane	<1.78	1.78	1.78		ug/L
Bromodichloromethane	<0.65	0.65	0.65		ug/L
cis-1,3-Dichloropropene	<0.86	0.86	0.86		ug/L
Methyl isobutyl ketone	<8.1	8.1	8.10		ug/L

Toluene	<0.57	0.57	0.57	ug/L
trans-1,3-Dichloropropene	<0.84	0.84	0.84	ug/L
1,1,2-Trichloroethane	<0.78	0.78	0.78	ug/L
2-Hexanone	<9.5	9.5	9.5	ug/L
Tetrachloroethene	<0.96	0.96	0.96	ug/L
1,3-Dichloropropane	<0.94	0.94	0.94	ug/L
Dibromochloromethane	<1.25	1.25	1.25	ug/L
1,2-Dibromoethane (EDB)	<0.68	0.68	0.68	ug/L
Chlorobenzene	<0.62	0.62	0.62	ug/L
Ethylbenzene	<0.51	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	<1.2	1.2	1.2	ug/L
o-Xylene	<0.5	0.5	0.5	ug/L
Styrene	<0.53	0.53	0.53	ug/L
Bromoform	<1.56	1.56	1.56	ug/L
Isopropylbenzene	<0.59	0.59	0.59	ug/L
1,1,1,2,2-Tetrachloroethane	<0.39	0.39	0.39	ug/L
1,2,3-Trichloropropane	<1.83	1.83	1.83	ug/L
n-Propylbenzene	<0.49	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	<0.3	0.3	0.30	ug/L
2-Chlorotoluene	<0.66	0.66	0.66	ug/L
4-Chlorotoluene	<0.8	0.8	0.80	ug/L
tert-Butylbenzene	<0.85	0.85	0.85	ug/L
1,2,4-Trimethylbenzene	<0.46	0.46	0.46	ug/L
sec-Butylbenzene	<0.63	0.63	0.63	ug/L
p-Isopropyltoluene	<0.59	0.59	0.59	ug/L
1,3-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,4-Dichlorobenzene	<0.53	0.53	0.53	ug/L
n-Butylbenzene	<0.72	0.72	0.72	ug/L
1,2-Dichlorobenzene	<0.7	0.7	0.70	ug/L
1,2-Dibromo-3-chloropropane	<0.86	0.86	0.86	ug/L
1,2,4-Trichlorobenzene	<1.14	1.14	1.14	ug/L
Hexachlorobutadiene	<0.96	0.96	0.96	ug/L
Naphthalene	<1.53	1.53	1.53	ug/L
1,2,3-Trichlorobenzene	<1.3	1.3	1.3	ug/L
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/28/2014 11:38 AM			

Analytical Quality Control Results Report

Batch: 14052301	Turbidity - water
WS-001	LIMS ID: 2014-1762

Turbidity - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Turbidity	8.66 NTU	0.02	0.02		
Turbidity (RPD)	1.5 %				0 - 20
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	5/23/2014 8:55				

Analytical Quality Control Results Report

Batch: 14052901	VOA - water
WS-001	LIMS ID: 2014-1762

Volatiles - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	102 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	97.9 %			70 - 130	
Toluene-d8 (% Recovery)	96.6 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	108 %			70 - 130	
Dichlorodifluoromethane (RPD)	0 %				0 - 20
Chloromethane (RPD)	0 %				0 - 20
Vinyl chloride (RPD)	0 %				0 - 20
Bromomethane (RPD)	0 %				0 - 20
Chloroethane (RPD)	0 %				0 - 20
Trichlorofluoromethane (RPD)	0 %				0 - 20
1,1-Dichloroethene (RPD)	0 %				0 - 20
Acetone (RPD)	0 %				0 - 20
Methylene chloride (RPD)	0 %				0 - 20
Methyl tert-butyl ether (RPD)	0 %				0 - 20
trans-1,2-Dichloroethene (RPD)	0 %				0 - 20
1,1-Dichloroethane (RPD)	0 %				0 - 20
Methyl ethyl ketone (RPD)	0 %				0 - 20
cis-1,2-Dichloroethene (RPD)	0 %				0 - 20
2,2-Dichloropropane (RPD)	0 %				0 - 20
Bromochloromethane (RPD)	0 %				0 - 20
Chloroform (RPD)	0 %				0 - 20
1,1,1-Trichloroethane (RPD)	0 %				0 - 20
1,1-Dichloropropene (RPD)	0 %				0 - 20
Carbon tetrachloride (RPD)	0 %				0 - 20
Benzene (RPD)	0 %				0 - 20
1,2-Dichloroethane (RPD)	0 %				0 - 20
Trichloroethene (RPD)	0 %				0 - 20
1,2-Dichloropropane (RPD)	0 %				0 - 20
Dibromomethane (RPD)	0 %				0 - 20
Bromodichloromethane (RPD)	0 %				0 - 20
cis-1,3-Dichloropropene (RPD)	0 %				0 - 20
Methyl isobutyl ketone (RPD)	0 %				0 - 20
Toluene (RPD)	108 %				0 - 20

trans-1,3-Dichloropropene (RPD)	0 %	0 - 20
1,1,2-Trichloroethane (RPD)	0 %	0 - 20
2-Hexanone (RPD)	0 %	0 - 20
Tetrachloroethene (RPD)	0 %	0 - 20
1,3-Dichloropropane (RPD)	0 %	0 - 20
Dibromochloromethane (RPD)	0 %	0 - 20
1,2-Dibromoethane (EDB) (RPD)	0 %	0 - 20
Chlorobenzene (RPD)	0 %	0 - 20
Ethylbenzene (RPD)	0 %	0 - 20
1,1,1,2-Tetrachloroethane (RPD)	0 %	0 - 20
m,p-Xylene (RPD)	0 %	0 - 20
o-Xylene (RPD)	0 %	0 - 20
Styrene (RPD)	0 %	0 - 20
Bromoform (RPD)	0 %	0 - 20
Isopropylbenzene (RPD)	0 %	0 - 20
1,1,1,2-Tetrachloroethane (RPD)	0 %	0 - 20
1,2,3-Trichloropropane (RPD)	0 %	0 - 20
n-Propylbenzene (RPD)	0 %	0 - 20
Bromobenzene (RPD)	0 %	0 - 20
1,3,5-Trimethylbenzene (RPD)	0 %	0 - 20
2-Chlorotoluene (RPD)	0 %	0 - 20
4-Chlorotoluene (RPD)	0 %	0 - 20
tert-Butylbenzene (RPD)	0 %	0 - 20
1,2,4-Trimethylbenzene (RPD)	0 %	0 - 20
sec-Butylbenzene (RPD)	0 %	0 - 20
p-Isopropyltoluene (RPD)	0 %	0 - 20
1,3-Dichlorobenzene (RPD)	0 %	0 - 20
1,4-Dichlorobenzene (RPD)	0 %	0 - 20
n-Butylbenzene (RPD)	0 %	0 - 20
1,2-Dichlorobenzene (RPD)	0 %	0 - 20
1,2-Dibromo-3-chloropropane (RPD)	0 %	0 - 20
1,2,4-Trichlorobenzene (RPD)	0 %	0 - 20
Hexachlorobutadiene (RPD)	0 %	0 - 20
Naphthalene (RPD)	0 %	0 - 20
1,2,3-Trichlorobenzene (RPD)	0 %	0 - 20
Dilution Factor	1	
Analyzed By	Jeff Ruehr	
Analysis Date/Time	5/28/2014 2:10 PM	

Volatiles - water MS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	99.0 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	99.0 %			70 - 130	
Toluene-d8 (% Recovery)	94.9 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	111 %			70 - 130	
1,1-Dichloroethene (% Recovery)	114 %			70 - 130	
Benzene (% Recovery)	101 %			70 - 130	
Trichloroethene (% Recovery)	103 %			70 - 130	
Toluene (% Recovery)	92.9 %			70 - 130	
Chlorobenzene (% Recovery)	103 %			70 - 130	
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	5/28/2014 2:35 PM				

WS-001 **LIMS ID: 2014-1762**

Volatiles - water MSD

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	102 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	101 %			70 - 130	
Toluene-d8 (% Recovery)	97.3 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	114 %			70 - 130	
1,1-Dichloroethene (% Recovery)	118 %			70 - 130	
1,1-Dichloroethene (RPD)	3.5 %				0 - 20
Benzene (RPD)	4.3 %				0 - 20
Benzene (% Recovery)	106 %			70 - 130	
Trichloroethene (% Recovery)	108 %			70 - 130	
Trichloroethene (RPD)	4.8 %				0 - 20
Toluene (RPD)	3.6 %				0 - 20
Toluene (% Recovery)	96.4 %			70 - 130	
Chlorobenzene (RPD)	6.3 %				0 - 20
Chlorobenzene (% Recovery)	110 %			70 - 130	
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	5/28/2014 3:00 PM				

LCS **LIMS ID: 14052901-LCS-01**

Volatiles - water LCS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Dibromofluoromethane (% Recovery)	101 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	100 %			70 - 130	
Toluene-d8 (% Recovery)	99.5 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	107 %			70 - 130	
Dichlorodifluoromethane (% Recovery)	87.5 %			60 - 130	
Chloromethane (% Recovery)	92.9 %			60 - 130	
Vinyl chloride (% Recovery)	92.9 %			60 - 130	
Bromomethane (% Recovery)	88.1 %			60 - 130	
Chloroethane (% Recovery)	100 %			60 - 130	
Trichlorofluoromethane (% Recovery)	98.8 %			60 - 130	
1,1-Dichloroethene (% Recovery)	101 %			60 - 130	
Acetone (% Recovery)	96.1 %			60 - 130	
Methylene chloride (% Recovery)	96.5 %			60 - 130	
Methyl tert-butyl ether (% Recovery)	98.0 %			60 - 130	
trans-1,2-Dichloroethene (% Recovery)	100 %			60 - 130	
1,1-Dichloroethane (% Recovery)	98.9 %			60 - 130	
Methyl ethyl ketone (% Recovery)	96.0 %			60 - 130	
cis-1,2-Dichloroethene (% Recovery)	102 %			60 - 130	
2,2-Dichloropropane (% Recovery)	110 %			60 - 130	
Bromochloromethane (% Recovery)	100 %			60 - 130	
Chloroform (% Recovery)	98.9 %			60 - 130	
1,1,1-Trichloroethane (% Recovery)	99.6 %			60 - 130	
1,1-Dichloropropene (% Recovery)	97.8 %			60 - 130	
Carbon tetrachloride (% Recovery)	98.1 %			60 - 130	
Benzene (% Recovery)	98.7 %			60 - 130	
1,2-Dichloroethane (% Recovery)	99.6 %			60 - 130	
Trichloroethene (% Recovery)	100 %			60 - 130	
1,2-Dichloropropane (% Recovery)	99.0 %			60 - 130	
Dibromomethane (% Recovery)	96.2 %			60 - 130	
Bromodichloromethane (% Recovery)	99.6 %			60 - 130	
cis-1,3-Dichloropropene (% Recovery)	98.0 %			60 - 130	
Methyl isobutyl ketone (% Recovery)	95.3 %			60 - 130	
Toluene (% Recovery)	98.5 %			60 - 130	
trans-1,3-Dichloropropene (% Recovery)	98.0 %			60 - 130	
1,1,2-Trichloroethane (% Recovery)	96.2 %			60 - 130	
2-Hexanone (% Recovery)	92.7 %			60 - 130	
Tetrachloroethene (% Recovery)	102 %			60 - 130	
1,3-Dichloropropane (% Recovery)	96.2 %			60 - 130	
Dibromochloromethane (% Recovery)	96.2 %			60 - 130	

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, AR 72118

Laboratory Contact: Jeff Ruehr
Ruehr@adeq.state.ar.us
501-682-0955

1,2-Dibromoethane (EDB) (% Recovery)	96.6 %	60 - 130
Chlorobenzene (% Recovery)	100 %	60 - 130
Ethylbenzene (% Recovery)	102 %	60 - 130
1,1,1,2-Tetrachloroethane (% Recovery)	101 %	60 - 130
m,p-Xylene (% Recovery)	99.7 %	60 - 130
o-Xylene (% Recovery)	99.7 %	60 - 130
Styrene (% Recovery)	97.0 %	60 - 130
Bromoform (% Recovery)	96.9 %	60 - 130
Isopropylbenzene (% Recovery)	104 %	60 - 130
1,1,1,2,2-Tetrachloroethane (% Recovery)	99.7 %	60 - 130
1,2,3-Trichloropropane (% Recovery)	103 %	60 - 130
n-Propylbenzene (% Recovery)	102 %	60 - 130
Bromobenzene (% Recovery)	97.9 %	60 - 130
1,3,5-Trimethylbenzene (% Recovery)	105 %	60 - 130
2-Chlorotoluene (% Recovery)	111 %	60 - 130
4-Chlorotoluene (% Recovery)	106 %	60 - 130
tert-Butylbenzene (% Recovery)	99.4 %	60 - 130
1,2,4-Trimethylbenzene (% Recovery)	106 %	60 - 130
sec-Butylbenzene (% Recovery)	101 %	60 - 130
p-Isopropyltoluene (% Recovery)	105 %	60 - 130
1,3-Dichlorobenzene (% Recovery)	107 %	60 - 130
1,4-Dichlorobenzene (% Recovery)	105 %	60 - 130
n-Butylbenzene (% Recovery)	103 %	60 - 130
1,2-Dichlorobenzene (% Recovery)	102 %	60 - 130
1,2-Dibromo-3-chloropropane (% Recovery)	99.9 %	60 - 130
1,2,4-Trichlorobenzene (% Recovery)	104 %	60 - 130
Hexachlorobutadiene (% Recovery)	105 %	60 - 130
Naphthalene (% Recovery)	99.5 %	60 - 130
1,2,3-Trichlorobenzene (% Recovery)	101 %	60 - 130
Dilution Factor	1	
Analyzed By	Jeff Ruehr	
Analysis Date/Time	5/28/2014 9:33	

Analytical Quality Control Results Report

Batch: 14052704	Semi-VOA water (Prep)
WS-001	LIMS ID: 2014-1762

Semi Volatiles - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/23/2014 08:00				
2-Fluorophenol (% Recovery)	31.8 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	56.5 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	49.3 %			40 - 110	
2,4,6-Tribromophenol (% Recovery)	67.5 %			40 - 110	
Terphenyl-d14 (% Recovery)	73.1 %			40 - 125	
Methyl Methanesulfonate (RPD)	0 %				0 - 40
Ethyl methanesulfonate (RPD)	3.1 %				0 - 40
Phenol (RPD)	15.7 %				0 - 40
Aniline (RPD)	6.4 %				0 - 40
Bis(2-chloroethyl)ether (RPD)	0 %				0 - 40
2-Chlorophenol (RPD)	0 %				0 - 40
1,3-Dichlorobenzene (RPD)	0 %				0 - 40
1,4-Dichlorobenzene (RPD)	2.1 %				0 - 40
Benzyl alcohol (RPD)	23.9 %				0 - 40
1,2-Dichlorobenzene (RPD)	0 %				0 - 40
2-Methylphenol (RPD)	0 %				0 - 40
Acetophenone (RPD)	35.4 %				0 - 40
4-Methylphenol (RPD)	0 %				0 - 40
N-Nitrosodi-n-propylamine (RPD)	0 %				0 - 40
Hexachloroethane (RPD)	0 %				0 - 40
Nitrobenzene (RPD)	0 %				0 - 40
N-Nitrosopiperidine (RPD)	0 %				0 - 40
Isophorone (RPD)	0 %				0 - 40
2-Nitrophenol (RPD)	0 %				0 - 40
2,4-Dimethylphenol (RPD)	0 %				0 - 40
Bis(2-chloroethoxy)methane (RPD)	0 %				0 - 40
2,4-Dichlorophenol (RPD)	200 %				0 - 40
1,2,4-Trichlorobenzene (RPD)	0 %				0 - 40
Naphthalene (RPD)	0 %				0 - 40

4-Chloroaniline (RPD)	0 %	0 - 40
2,6-Dichlorophenol (RPD)	0 %	0 - 40
Hexachlorobutadiene (RPD)	0 %	0 - 40
N-Nitrosodibutylamine (RPD)	96.7 %	0 - 40
4-Chloro-3-methylphenol (RPD)	0 %	0 - 40
2-Methylnaphthalene (RPD)	0 %	0 - 40
1,2,4,5-Tetrachlorobenzene (RPD)	0 %	0 - 40
Hexachlorocyclopentadiene (RPD)	0 %	0 - 40
2,4,6-Trichlorophenol (RPD)	0 %	0 - 40
2,4,5-Trichlorophenol (RPD)	0 %	0 - 40
2-Chloronaphthalene (RPD)	0 %	0 - 40
1-Chloronaphthalene (RPD)	0 %	0 - 40
2-Nitroaniline (RPD)	0 %	0 - 40
Dimethyl phthalate (RPD)	0 %	0 - 40
2,6-Dinitrotoluene (RPD)	0 %	0 - 40
Acenaphthylene (RPD)	0 %	0 - 40
3-Nitroaniline (RPD)	200 %	0 - 40
Acenaphthene (RPD)	0 %	0 - 40
2,4-Dinitrophenol (RPD)	0 %	0 - 40
Pentachlorobenzene (RPD)	0 %	0 - 40
4-Nitrophenol (RPD)	0 %	0 - 40
Dibenzofuran (RPD)	0 %	0 - 40
2,4-Dinitrotoluene (RPD)	0 %	0 - 40
2,3,4,6-Tetrachlorophenol (RPD)	0 %	0 - 40
Diethyl phthalate (RPD)	41.1 %	0 - 40
Fluorene (RPD)	0 %	0 - 40
4-Chlorophenyl phenyl ether (RPD)	0 %	0 - 40
4-Nitroaniline (RPD)	0 %	0 - 40
4,6-Dinitro-2-methylphenol (RPD)	0 %	0 - 40
Diphenylamine (RPD)	0 %	0 - 40
Azobenzene (RPD)	0 %	0 - 40
4-Bromophenyl phenyl ether (RPD)	0 %	0 - 40
Hexachlorobenzene (RPD)	0 %	0 - 40
Pentachlorophenol (RPD)	200 %	0 - 40
Pentachloronitrobenzene (RPD)	0 %	0 - 40
Pronamide (RPD)	0 %	0 - 40
Phenanthrene (RPD)	0 %	0 - 40
Anthracene (RPD)	0 %	0 - 40
Carbazole (RPD)	0 %	0 - 40
Di-n-butyl phthalate (RPD)	23.4 %	0 - 40

Fluoranthene (RPD)	0 %	0 - 40
Pyrene (RPD)	0 %	0 - 40
Dimethylaminoazobenzene (RPD)	0 %	0 - 40
Butyl benzyl phthalate (RPD)	0 %	0 - 40
Benzo (a) anthracene (RPD)	0 %	0 - 40
Chrysene (RPD)	0 %	0 - 40
Bis(2-ethylhexyl)phthalate (RPD)	59.5 %	0 - 40
Di-n-octyl phthalate (RPD)	136 %	0 - 40
Benzo (b) fluoranthene (RPD)	0 %	0 - 40
7,12-Dimethylbenz (a) anthracene (RPD)	0 %	0 - 40
Benzo (k) fluoranthene (RPD)	0 %	0 - 40
Benzo (a) pyrene (RPD)	0 %	0 - 40
3-Methylcholanthrene (RPD)	0 %	0 - 40
Indeno (1,2,3-cd) pyrene (RPD)	0 %	0 - 40
Dibenzo (a,h) anthracene (RPD)	0 %	0 - 40
Benzo (g,h,i) perylene (RPD)	0 %	0 - 40
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	5/27/2014 2:25 PM	

WS-001	LIMS ID: 2014-1762
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Semi Volatiles - water MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/23/2014 08:00				
2-Fluorophenol (% Recovery)	31.5 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	55.4 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	52.1 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	63.6 %			40 - 125	
Terphenyl-d14 (% Recovery)	71.7 %			40 - 125	
Phenol (% Recovery)	23.2 %			25 - 125	
2-Chlorophenol (% Recovery)	46.2 %			25 - 125	
1,4-Dichlorobenzene (% Recovery)	52.8 %			25 - 125	
N-Nitrosodi-n-propylamine (% Recovery)	60.2 %			25 - 125	
1,2,4-Trichlorobenzene (% Recovery)	47.5 %			25 - 125	
4-Chloro-3-methylphenol (% Recovery)	52.5 %			25 - 125	
Acenaphthene (% Recovery)	49.5 %			25 - 125	

4-Nitrophenol (% Recovery)	36.5 %	25 - 125
2,4-Dinitrotoluene (% Recovery)	60.5 %	25 - 125
Pentachlorophenol (% Recovery)	83.5 %	25 - 125
Pyrene (% Recovery)	67.3 %	25 - 125
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	5/27/2014 2:53 PM	

WS-001	LIMS ID: 2014-1762
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Semi Volatiles - water MSD

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/23/2014 08:00				
2-Fluorophenol (% Recovery)	28.1 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	55.1 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	49.2 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	67.9 %			40 - 125	
Terphenyl-d14 (% Recovery)	69.0 %			40 - 125	
Phenol (% Recovery)	20.6 %			25 - 125	
Phenol (RPD)	11.6 %				0 - 40
2-Chlorophenol (% Recovery)	44.4 %			25 - 125	
2-Chlorophenol (RPD)	3.9 %				0 - 40
1,4-Dichlorobenzene (RPD)	3.6 %				0 - 40
1,4-Dichlorobenzene (% Recovery)	50.9 %			25 - 125	
N-Nitrosodi-n-propylamine (% Recovery)	53.7 %			25 - 125	
N-Nitrosodi-n-propylamine (RPD)	11.5 %				0 - 40
1,2,4-Trichlorobenzene (% Recovery)	48.5 %			25 - 125	
1,2,4-Trichlorobenzene (RPD)	2.0 %				0 - 40
4-Chloro-3-methylphenol (% Recovery)	50.2 %			25 - 125	
4-Chloro-3-methylphenol (RPD)	4.5 %				0 - 40
Acenaphthene (% Recovery)	48.9 %			25 - 125	
Acenaphthene (RPD)	1.4 %				0 - 40
4-Nitrophenol (% Recovery)	36.1 %			25 - 125	
4-Nitrophenol (RPD)	1.2 %				0 - 40
2,4-Dinitrotoluene (% Recovery)	56.7 %			25 - 125	
2,4-Dinitrotoluene (RPD)	6.5 %				0 - 40
Pentachlorophenol (% Recovery)	78.9 %			25 - 125	

Pentachlorophenol (RPD)	5.6 %	0 - 40
Pyrene (% Recovery)	67.5 %	25 - 125
Pyrene (RPD)	0.4 %	0 - 40
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	5/27/2014 3:22 PM	

MB **LIMS ID: 14052704-MB-01**

Semi Volatiles - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/23/2014 08:00				
2-Fluorophenol (% Recovery)	30.9 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	61.7 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	56.6 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	61.2 %			40 - 125	
Terphenyl-d14 (% Recovery)	76.8 %			40 - 125	
Methyl Methanesulfonate	<0.2 ug/L	0.2	0.2		
Ethyl methanesulfonate	<0.2 ug/L	0.2	0.2		
Phenol	<0.2 ug/L	0.2	0.2		
Aniline	<0.2 ug/L	0.2	0.2		
Bis(2-chloroethyl)ether	<0.2 ug/L	0.2	0.2		
2-Chlorophenol	<0.2 ug/L	0.2	0.2		
1,3-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
1,4-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
Benzyl alcohol	<0.16 ug/L	0.16	0.16		
1,2-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
2-Methylphenol	<0.1 ug/L	0.1	0.1		
Acetophenone	<0.1 ug/L	0.1	0.1		
4-Methylphenol	<0.1 ug/L	0.1	0.1		
N-Nitrosodi-n-propylamine	<0.2 ug/L	0.2	0.2		
Hexachloroethane	<0.2 ug/L	0.2	0.2		
Nitrobenzene	<0.2 ug/L	0.2	0.2		
N-Nitrosopiperidine	<0.2 ug/L	0.2	0.2		
Isophorone	<0.1 ug/L	0.1	0.1		
2-Nitrophenol	<0.3 ug/L	0.3	0.3		
2,4-Dimethylphenol	<0.1 ug/L	0.1	0.1		

Bis(2-chloroethoxy)methane	<0.2 ug/L	0.2	0.2
2,4-Dichlorophenol	<0.2 ug/L	0.2	0.2
1,2,4-Trichlorobenzene	<0.12 ug/L	0.12	0.12
Naphthalene	<0.08 ug/L	0.08	0.08
4-Chloroaniline	<0.1 ug/L	0.1	0.1
2,6-Dichlorophenol	<0.2 ug/L	0.2	0.2
Hexachlorobutadiene	<0.2 ug/L	0.2	0.2
N-Nitrosodibutylamine	<0.2 ug/L	0.2	0.2
4-Chloro-3-methylphenol	<0.16 ug/L	0.16	0.16
2-Methylnaphthalene	<0.12 ug/L	0.12	0.12
1,2,4,5-Tetrachlorobenzene	<0.1 ug/L	0.1	0.1
Hexachlorocyclopentadiene	<0.16 ug/L	0.16	0.16
2,4,6-Trichlorophenol	<0.2 ug/L	0.2	0.2
2,4,5-Trichlorophenol	<0.2 ug/L	0.2	0.2
2-Chloronaphthalene	<0.1 ug/L	0.1	0.1
1-Chloronaphthalene	<0.1 ug/L	0.1	0.1
2-Nitroaniline	<0.2 ug/L	0.2	0.2
Dimethyl phthalate	<0.2 ug/L	0.2	0.2
2,6-Dinitrotoluene	<0.2 ug/L	0.2	0.2
Acenaphthylene	<0.08 ug/L	0.08	0.08
3-Nitroaniline	<0.2 ug/L	0.2	0.2
Acenaphthene	<0.1 ug/L	0.1	0.1
2,4-Dinitrophenol	<4 ug/L	4	4
Pentachlorobenzene	<0.12 ug/L	0.12	0.12
4-Nitrophenol	<2 ug/L	2	2
Dibenzofuran	<0.1 ug/L	0.1	0.1
2,4-Dinitrotoluene	<0.2 ug/L	0.2	0.2
2,3,4,6-Tetrachlorophenol	<0.6 ug/L	0.6	0.6
Diethyl phthalate	<0.2 ug/L	0.2	0.2
Fluorene	<0.1 ug/L	0.1	0.1
4-Chlorophenyl phenyl ether	<0.1 ug/L	0.1	0.1
4-Nitroaniline	<0.2 ug/L	0.2	0.2
4,6-Dinitro-2-methylphenol	<6 ug/L	6	6
Diphenylamine	<0.1 ug/L	0.1	0.1
Azobenzene	<0.08 ug/L	0.08	0.08
4-Bromophenyl phenyl ether	<0.2 ug/L	0.2	0.2
Hexachlorobenzene	<0.16 ug/L	0.16	0.16
Pentachlorophenol	<1 ug/L	1	1
Pentachloronitrobenzene	<0.2 ug/L	0.2	0.2
Pronamide	<0.2 ug/L	0.2	0.2

Phenanthrene	<0.08 ug/L	0.08	0.08
Anthracene	<0.08 ug/L	0.08	0.08
Carbazole	<0.1 ug/L	0.1	0.1
Di-n-butyl phthalate	0.925 ug/L	0.2	0.2
Fluoranthene	<0.08 ug/L	0.08	0.08
Pyrene	<0.08 ug/L	0.08	0.08
Dimethylaminoazobenzene	<0.2 ug/L	0.2	0.2
Butyl benzyl phthalate	<0.3 ug/L	0.3	0.3
Benzo (a) anthracene	<0.2 ug/L	0.2	0.2
Chrysene	<0.1 ug/L	0.1	0.1
Bis(2-ethylhexyl)phthalate	<0.3 ug/L	0.3	0.3
Di-n-octyl phthalate	<0.3 ug/L	0.3	0.3
Benzo (b) fluoranthene	<0.16 ug/L	0.16	0.16
7,12-Dimethylbenz (a) anthracene	<0.2 ug/L	0.2	0.2
Benzo (k) fluoranthene	<0.16 ug/L	0.16	0.16
Benzo (a) pyrene	<0.16 ug/L	0.16	0.16
3-Methylcholanthrene	<0.2 ug/L	0.2	0.2
Indeno (1,2,3-cd) pyrene	<0.2 ug/L	0.2	0.2
Dibenzo (a,h) anthracene	<0.16 ug/L	0.16	0.16
Benzo (g,h,i) perylene	<0.16 ug/L	0.16	0.16
Dilution Factor	1		
Analyzed By	Ed Harris		
Analysis Date/Time	5/27/2014 11:06		

LCS	LIMS ID: 14052704-LCS-01
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Semi Volatiles - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/23/2014 08:00				
2-Fluorophenol (% Recovery)	40.0 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	61.5 %			50 - 125	
2-Fluorobiphenyl (% Recovery)	53.2 %			50 - 125	
2,4,6-Tribromophenol (% Recovery)	65.2 %			40 - 125	
Terphenyl-d14 (% Recovery)	80.1 %			50 - 125	
Methyl Methanesulfonate (% Recovery)	59.8 %			50 - 150	
Ethyl methanesulfonate (% Recovery)	65.8 %			50 - 150	
Phenol (% Recovery)	33.9 %			50 - 150	

Aniline (% Recovery)	54.2 %	50 - 150
Bis(2-chloroethyl)ether (% Recovery)	68.9 %	50 - 150
2-Chlorophenol (% Recovery)	60.3 %	50 - 150
1,3-Dichlorobenzene (% Recovery)	51.7 %	50 - 150
1,4-Dichlorobenzene (% Recovery)	54.9 %	50 - 150
Benzyl alcohol (% Recovery)	65.9 %	50 - 150
1,2-Dichlorobenzene (% Recovery)	55.6 %	50 - 150
2-Methylphenol (% Recovery)	59.9 %	50 - 150
Acetophenone (% Recovery)	66.1 %	50 - 150
4-Methylphenol (% Recovery)	57.0 %	50 - 150
N-Nitrosodi-n-propylamine (% Recovery)	66.6 %	50 - 150
Hexachloroethane (% Recovery)	47.1 %	50 - 150
Nitrobenzene (% Recovery)	64.3 %	50 - 150
N-Nitrosopiperidine (% Recovery)	68.9 %	50 - 150
Isophorone (% Recovery)	68.0 %	50 - 150
2-Nitrophenol (% Recovery)	63.5 %	50 - 150
2,4-Dimethylphenol (% Recovery)	6.3 %	50 - 150
Bis(2-chloroethoxy)methane (% Recovery)	65.7 %	50 - 150
2,4-Dichlorophenol (% Recovery)	63.3 %	50 - 150
1,2,4-Trichlorobenzene (% Recovery)	51.3 %	50 - 150
Naphthalene (% Recovery)	61.0 %	50 - 150
4-Chloroaniline (% Recovery)	61.1 %	50 - 150
2,6-Dichlorophenol (% Recovery)	62.3 %	50 - 150
Hexachlorobutadiene (% Recovery)	45.9 %	50 - 150
N-Nitrosodibutylamine (% Recovery)	68.7 %	50 - 150
4-Chloro-3-methylphenol (% Recovery)	61.9 %	50 - 150
2-Methylnaphthalene (% Recovery)	60.4 %	50 - 150
1,2,4,5-Tetrachlorobenzene (% Recovery)	49.3 %	50 - 150
Hexachlorocyclopentadiene (% Recovery)	45.6 %	50 - 150
2,4,6-Trichlorophenol (% Recovery)	62.4 %	50 - 150
2,4,5-Trichlorophenol (% Recovery)	60.1 %	50 - 150
2-Chloronaphthalene (% Recovery)	55.5 %	50 - 150
1-Chloronaphthalene (% Recovery)	53.6 %	50 - 150
2-Nitroaniline (% Recovery)	61.6 %	50 - 150
Dimethyl phthalate (% Recovery)	62.2 %	50 - 150
2,6-Dinitrotoluene (% Recovery)	63.3 %	50 - 150
Acenaphthylene (% Recovery)	58.6 %	50 - 150
3-Nitroaniline (% Recovery)	65.0 %	50 - 150
Acenaphthene (% Recovery)	58.0 %	50 - 150
2,4-Dinitrophenol (% Recovery)	64.2 %	50 - 150

Pentachlorobenzene (% Recovery)	54.3 %	50 - 150
4-Nitrophenol (% Recovery)	31.2 %	50 - 150
Dibenzofuran (% Recovery)	58.2 %	50 - 150
2,4-Dinitrotoluene (% Recovery)	61.9 %	50 - 150
2,3,4,6-Tetrachlorophenol (% Recovery)	65.1 %	50 - 150
Diethyl phthalate (% Recovery)	64.5 %	50 - 150
Fluorene (% Recovery)	58.5 %	50 - 150
4-Chlorophenyl phenyl ether (% Recovery)	59.2 %	50 - 150
4-Nitroaniline (% Recovery)	72.9 %	50 - 150
4,6-Dinitro-2-methylphenol (% Recovery)	69.6 %	50 - 150
Diphenylamine (% Recovery)	58.2 %	50 - 150
Azobenzene (% Recovery)	63.4 %	50 - 150
4-Bromophenyl phenyl ether (% Recovery)	62.8 %	50 - 150
Hexachlorobenzene (% Recovery)	62.9 %	50 - 150
Pentachlorophenol (% Recovery)	66.9 %	50 - 150
Pentachloronitrobenzene (% Recovery)	66.6 %	50 - 150
Pronamide (% Recovery)	69.7 %	50 - 150
Phenanthrene (% Recovery)	66.3 %	50 - 150
Anthracene (% Recovery)	65.1 %	50 - 150
Carbazole (% Recovery)	78.2 %	50 - 150
Di-n-butyl phthalate (% Recovery)	113 %	50 - 150
Fluoranthene (% Recovery)	70.5 %	50 - 150
Pyrene (% Recovery)	76.9 %	50 - 150
Dimethylaminoazobenzene (% Recovery)	77.5 %	50 - 150
Butyl benzyl phthalate (% Recovery)	80.3 %	50 - 150
Benzo (a) anthracene (% Recovery)	79.9 %	50 - 150
Chrysene (% Recovery)	84.2 %	50 - 150
Bis(2-ethylhexyl)phthalate (% Recovery)	84.0 %	50 - 150
Di-n-octyl phthalate (% Recovery)	80.8 %	50 - 150
Benzo (b) fluoranthene (% Recovery)	81.3 %	50 - 150
7,12-Dimethylbenz (a) anthracene (% Recovery)	77.9 %	50 - 150
Benzo (k) fluoranthene (% Recovery)	82.0 %	50 - 150
Benzo (a) pyrene (% Recovery)	81.3 %	50 - 150
3-Methylcholanthrene (% Recovery)	75.5 %	50 - 150
Indeno (1,2,3-cd) pyrene (% Recovery)	82.0 %	50 - 150
Dibenzo (a,h) anthracene (% Recovery)	85.8 %	50 - 150
Benzo (g,h,i) perylene (% Recovery)	83.7 %	50 - 150
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	5/27/2014 11:34	

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Analytical Quality Control Results Report

Batch: 14052706	Oil and Grease - water
WS-001	LIMS ID: 2014-1762

Oil and Grease - water DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease (RPD)	0 %				0 - 20
Oil and Grease	<2.5 mg/L	2.5	2.5		
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

WS-001	LIMS ID: 2014-1762
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Oil and Grease - water MS

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease (% Recovery)	99.5 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

WS-001	LIMS ID: 2014-1762
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Oil and Grease - water MSD

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease (% Recovery)	105 %			70 - 130	
Oil and Grease (RPD)	5.1 %				0 - 20
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

MB	LIMS ID: 14052706-MB-01
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Oil and Grease - water MB

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Oil and Grease	<2.5 mg/L	2.5	2.5		
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

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LCS **LIMS ID: 14052706-LCS-01**

Oil and Grease - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease (% Recovery)	93.0 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	05-27-2014 1500				

Analytical Quality Control Results Report

Batch: 14060312	ICP Metals - water (total)
WS-001	LIMS ID: 2014-1762

ICP Metals - water (Total) DUP

Run: 1

<i>Parameter</i>	<i>Result</i>	<i>DL</i>	<i>RL</i>	<i>Accuracy Control</i>	<i>Precision Control</i>
Aluminum	50.8 ug/L	20	20		
Aluminum (RPD)	51.8 %				0 - 20
Antimony (RPD)	0 %				0 - 20
Antimony	<10 ug/L	5	10		
Arsenic	<1 ug/L	0.5	1		
Arsenic (RPD)	0.7 %				0 - 20
Barium (RPD)	4.9 %				0 - 20
Barium	15.0 ug/L	2	10		
Beryllium	<0.5 ug/L	0.1	0.5		
Beryllium (RPD)	28.6 %				0 - 20
Boron (RPD)	1.1 %				0 - 20
Boron	<25 ug/L	5	25		
Cadmium	<1 ug/L	0.3	1		
Cadmium (RPD)	66.7 %				0 - 20
Calcium (RPD)	1.5 %				0 - 20
Calcium	4.79 mg/L	0.04	0.04		
Chromium (RPD)	25.3 %				0 - 20
Chromium	<1 ug/L	0.3	1		
Cobalt	<1 ug/L	0.5	1		
Cobalt (RPD)	2.7 %				0 - 20
Copper (RPD)	86.7 %				0 - 20
Copper	<1 ug/L	0.5	1		
Iron	449 ug/L	10	20		
Iron (RPD)	6.0 %				0 - 20
Lead	<1 ug/L	0.1	1		
Lead (RPD)	8.2 %				0 - 20
Magnesium (RPD)	1.5 %				0 - 20
Magnesium	1.90 mg/L	0.1	0.1		
Manganese	160 ug/L	0.2	1		
Manganese (RPD)	1.1 %				0 - 20
Nickel (RPD)	5.9 %				0 - 20
Nickel	<2.5 ug/L	0.5	2.5		
Potassium	2.61 mg/L	0.05	1		

Potassium (RPD)	2.1 %			0 - 20
Selenium (RPD)	11.6 %			0 - 20
Selenium	<2 ug/L	0.5	2	
Silver	<5 ug/L	1	5	
Silver (RPD)	%			0 - 20
Sodium (RPD)	0.5 %			0 - 20
Sodium	7.43 mg/L	0.02	0.04	
Thallium (RPD)	200 %			0 - 20
Thallium	<2.5 ug/L	0.05	2.5	
Vanadium (RPD)	10.2 %			0 - 20
Vanadium	<2.5 ug/L	1	2.5	
Zinc	<3 ug/L	2	3	
Zinc (RPD)	15.1 %			0 - 20
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 30 2014 8:12PM			

WS-001	LIMS ID: 2014-1762
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ICP Metals - water (Total) MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	108 %			70 - 130	
Antimony (% Recovery)	97.8 %			70 - 130	
Arsenic (% Recovery)	100 %			70 - 130	
Barium (% Recovery)	97.5 %			70 - 130	
Beryllium (% Recovery)	104 %			70 - 130	
Boron (% Recovery)	104 %			70 - 130	
Cadmium (% Recovery)	102 %			70 - 130	
Calcium (% Recovery)	99.0 %			70 - 130	
Chromium (% Recovery)	96.4 %			70 - 130	
Cobalt (% Recovery)	95.1 %			70 - 130	
Copper (% Recovery)	92.9 %			70 - 130	
Iron (% Recovery)	108 %			70 - 130	
Lead (% Recovery)	97.5 %			70 - 130	
Magnesium (% Recovery)	97.1 %			70 - 130	
Manganese (% Recovery)	98 %			70 - 130	
Nickel (% Recovery)	94 %			70 - 130	
Potassium (% Recovery)	100 %			70 - 130	
Selenium (% Recovery)	109 %			70 - 130	
Silver (% Recovery)	86.9 %			70 - 130	

Sodium (% Recovery)	81.9 %	70 - 130
Thallium (% Recovery)	98.6 %	70 - 130
Vanadium (% Recovery)	96.5 %	70 - 130
Zinc (% Recovery)	102 %	70 - 130
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	May 30 2014 8:19PM	

WS-001 **LIMS ID: 2014-1762**

ICP Metals - water (Total) MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	108 %			70 - 130	
Aluminum (RPD)	0.1 %				0 - 20
Antimony (% Recovery)	98.3 %			70 - 130	
Antimony (RPD)	0.5 %				0 - 20
Arsenic (% Recovery)	104 %			70 - 130	
Arsenic (RPD)	3.7 %				0 - 20
Barium (% Recovery)	98.5 %			70 - 130	
Barium (RPD)	1.1 %				0 - 20
Beryllium (% Recovery)	103 %			70 - 130	
Beryllium (RPD)	0.7 %				0 - 20
Boron (% Recovery)	105 %			70 - 130	
Boron (RPD)	0.2 %				0 - 20
Cadmium (% Recovery)	101 %			70 - 130	
Cadmium (RPD)	0.1 %				0 - 20
Calcium (% Recovery)	101 %			70 - 130	
Calcium (RPD)	1.6 %				0 - 20
Chromium (% Recovery)	93.6 %			70 - 130	
Chromium (RPD)	3.0 %				0 - 20
Cobalt (% Recovery)	93.5 %			70 - 130	
Cobalt (RPD)	1.7 %				0 - 20
Copper (% Recovery)	91.7 %			70 - 130	
Copper (RPD)	1.2 %				0 - 20
Iron (% Recovery)	100 %			70 - 130	
Iron (RPD)	2.3 %				0 - 20
Lead (% Recovery)	96.5 %			70 - 130	
Lead (RPD)	1.1 %				0 - 20
Magnesium (% Recovery)	96.6 %			70 - 130	
Magnesium (RPD)	0.4 %				0 - 20

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Manganese (% Recovery)	86 %	70 - 130	
Manganese (RPD)	1.9 %		0 - 20
Nickel (% Recovery)	92 %	70 - 130	
Nickel (RPD)	2.2 %		0 - 20
Potassium (% Recovery)	102 %	70 - 130	
Potassium (RPD)	1.5 %		0 - 20
Selenium (% Recovery)	110 %	70 - 130	
Selenium (RPD)	0.2 %		0 - 20
Silver (% Recovery)	87.8 %	70 - 130	
Silver (RPD)	1.0 %		0 - 20
Sodium (% Recovery)	81.5 %	70 - 130	
Sodium (RPD)	0.3 %		0 - 20
Thallium (% Recovery)	97.0 %	70 - 130	
Thallium (RPD)	1.7 %		0 - 20
Vanadium (% Recovery)	93.9 %	70 - 130	
Vanadium (RPD)	2.7 %		0 - 20
Zinc (% Recovery)	102 %	70 - 130	
Zinc (RPD)	0 %		0 - 20
Dilution Factor	1		
Analysis Date/Time	May 30 2014 8:25PM		
Analyzed By	Robert Graddy		

Analytical Quality Control Results Report

Batch: 14060311	ICP Metals - water (Diss.)
WS-001	LIMS ID: 2014-1762

ICP Metals - water (Dissolved) DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum	20.3 ug/L	20	20		
Aluminum (RPD)	52.6 %				0 - 20
Antimony (RPD)	26.9 %				0 - 20
Antimony	<5 ug/L	1	5		
Arsenic	0.61 ug/L	0.2	0.5		
Arsenic (RPD)	4.0 %				0 - 20
Barium (RPD)	2.3 %				0 - 20
Barium	8.43 ug/L	0.4	2		
Beryllium	<0.1 ug/L	0.04	0.1		
Beryllium (RPD)	28.6 %				0 - 20
Boron (RPD)	1.7 %				0 - 20
Boron	18.6 ug/L	2	5		
Cadmium	<0.1 ug/L	0.05	0.1		
Cadmium (RPD)	200 %				0 - 20
Calcium (RPD)	0.3 %				0 - 20
Calcium	4.68 mg/L	0.03	0.03		
Chromium (RPD)	6.7 %				0 - 20
Chromium	<0.5 ug/L	0.05	0.5		
Cobalt	<0.5 ug/L	0.05	0.5		
Cobalt (RPD)	24.0 %				0 - 20
Copper (RPD)	2.4 %				0 - 20
Copper	0.67 ug/L	0.2	0.5		
Iron	86.4 ug/L	5	20		
Iron (RPD)	29.5 %				0 - 20
Lead (RPD)	38.5 %				0 - 20
Lead	<0.3 ug/L	0.02	0.3		
Magnesium	1.73 mg/L	0.01	0.02		
Magnesium (RPD)	3.6 %				0 - 20
Manganese	3.2 ug/L	0.07	0.3		
Manganese (RPD)	90 %				0 - 20
Nickel (RPD)	1.0 %				0 - 20
Nickel	0.72 ug/L	0.15	0.5		
Potassium	2.47 mg/L	0.01	0.02		

Potassium (RPD)	0 %			0 - 20
Selenium (RPD)	2.7 %			0 - 20
Selenium	<1 ug/L	0.2	1	
Silicon Dioxide	2.61 mg/L	0.01	0.05	
Silicon Dioxide (RPD)	3.0 %			0 - 20
Silver (RPD)	100 %			0 - 20
Silver	<0.5 ug/L	0.02	0.5	
Sodium	9.99 mg/L	0.01	0.02	
Sodium (RPD)	3.0 %			0 - 20
Thallium	<0.5 ug/L	0	0.5	
Thallium (RPD)	100 %			0 - 20
Vanadium (RPD)	3.3 %			0 - 20
Vanadium	<0.5 ug/L	0.3	0.5	
Zinc	<1 ug/L	0.3	1	
Zinc (RPD)	33.2 %			0 - 20
Hardness	19 mg/L	1	1	
Hardness (RPD)	1 %			0 - 20
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 28 2014 2:36PM			

WS-001 **LIMS ID: 2014-1762**

ICP Metals - water (Dissolved) MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	85.6 %			70 - 130	
Antimony (% Recovery)	94.0 %			70 - 130	
Arsenic (% Recovery)	93.4 %			70 - 130	
Barium (% Recovery)	91.4 %			70 - 130	
Beryllium (% Recovery)	93.1 %			70 - 130	
Boron (% Recovery)	98.4 %			70 - 130	
Cadmium (% Recovery)	95.0 %			70 - 130	
Calcium (% Recovery)	96.5 %			70 - 130	
Chromium (% Recovery)	85.0 %			70 - 130	
Cobalt (% Recovery)	85.7 %			70 - 130	
Copper (% Recovery)	87.5 %			70 - 130	
Iron (% Recovery)	87.2 %			70 - 130	
Lead (% Recovery)	91.7 %			70 - 130	
Magnesium (% Recovery)	89.7 %			70 - 130	
Manganese (% Recovery)	87 %			70 - 130	

Nickel (% Recovery)	86 %	70 - 130
Potassium (% Recovery)	95.7 %	70 - 130
Selenium (% Recovery)	101 %	70 - 130
Silver (% Recovery)	86.3 %	70 - 130
Sodium (% Recovery)	44.9 %	70 - 130
Thallium (% Recovery)	91.9 %	70 - 130
Vanadium (% Recovery)	85.4 %	70 - 130
Zinc (% Recovery)	96.3 %	70 - 130
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	May 28 2014 2:43PM	

WS-001	LIMS ID: 2014-1762
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ICP Metals - water (Dissolved) MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	87.1 %			70 - 130	
Aluminum (RPD)	1.6 %				0 - 20
Antimony (% Recovery)	92.3 %			70 - 130	
Antimony (RPD)	1.8 %				0 - 20
Arsenic (% Recovery)	89.2 %			70 - 130	
Arsenic (RPD)	4.5 %				0 - 20
Barium (% Recovery)	91.1 %			70 - 130	
Barium (RPD)	0.3 %				0 - 20
Beryllium (% Recovery)	92.5 %			70 - 130	
Beryllium (RPD)	0.6 %				0 - 20
Boron (% Recovery)	98.8 %			70 - 130	
Boron (RPD)	0.3 %				0 - 20
Cadmium (% Recovery)	95.4 %			70 - 130	
Cadmium (RPD)	0.4 %				0 - 20
Calcium (% Recovery)	99.3 %			70 - 130	
Calcium (RPD)	1.9 %				0 - 20
Chromium (% Recovery)	84.0 %			70 - 130	
Chromium (RPD)	1.2 %				0 - 20
Cobalt (% Recovery)	85.3 %			70 - 130	
Cobalt (RPD)	0.6 %				0 - 20
Copper (% Recovery)	87.0 %			70 - 130	
Copper (RPD)	0.7 %				0 - 20
Iron (% Recovery)	84.3 %			70 - 130	
Iron (RPD)	2.0 %				0 - 20

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Lead (% Recovery)	93.1 %	70 - 130	
Lead (RPD)	1.5 %		0 - 20
Magnesium (% Recovery)	88.8 %	70 - 130	
Magnesium (RPD)	0.8 %		0 - 20
Manganese (% Recovery)	85 %	70 - 130	
Manganese (RPD)	1.8 %		0 - 20
Nickel (% Recovery)	85 %	70 - 130	
Nickel (RPD)	0.7 %		0 - 20
Potassium (% Recovery)	98.4 %	70 - 130	
Potassium (RPD)	2.2 %		0 - 20
Selenium (% Recovery)	101 %	70 - 130	
Selenium (RPD)	0.4 %		0 - 20
Silver (% Recovery)	85.4 %	70 - 130	
Silver (RPD)	1.0 %		0 - 20
Sodium (% Recovery)	43.3 %	70 - 130	
Sodium (RPD)	1.1 %		0 - 20
Thallium (% Recovery)	95.3 %	70 - 130	
Thallium (RPD)	3.6 %		0 - 20
Vanadium (% Recovery)	84.7 %	70 - 130	
Vanadium (RPD)	0.9 %		0 - 20
Zinc (% Recovery)	93.9 %	70 - 130	
Zinc (RPD)	2.4 %		0 - 20
Dilution Factor	1		
Analyzed By	Robert Graddy		
Analysis Date/Time	May 28 2014 2:49PM		