



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

Client Report For: Exxon Oil Spill 2013 1223-1227
Attention:
Client Address:

,

Report Date: April 19, 2013
LAB ID: AR13APR17-09
Comment:

Approved By: _____

Date: April 19, 2013

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-018S

Lab ID: 2013-1223

Collection Date: 4/17/2013 1:20:00 PM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 13041811 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	48.4	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.79	0.5	0.2		ug/L
Barium	18.2	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	12.1	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	12.1	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	0.82	0.5	0.2		ug/L
Iron	177	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.67	0.02	0.01		mg/L
Manganese	273	0.3	0.07		ug/L
Nickel	1.01	0.5	0.15		ug/L
Potassium	1.87	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.20	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	4.79	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	9.73	1	0.3		ug/L
Hardness	37.0	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 18 2013 10:53AM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 13041813 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	246	20	20		ug/L
Antimony	<10	10	5		ug/L
Arsenic	1.07	1	0.5		ug/L
Barium	23.8	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	10.8	0.04	0.04		mg/L
Chromium	<1	1	0.3		ug/L
Cobalt	<1	1	0.5		ug/L
Copper	1.20	1	0.5		ug/L
Iron	688	20	10.0		ug/L
Lead	<1	1	0.1		ug/L
Magnesium	1.82	0.1	0.1		mg/L
Manganese	379	1	0.2		ug/L
Nickel	<2.5	2.5	0.5		ug/L
Potassium	2.00	1	0.05		mg/L
Selenium	<2	2	0.5		ug/L
Silver	<5	5	1.0		ug/L
Sodium	5.03	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	4.13	3	2.0		ug/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 18 2013 12:54PM				
Prep By					
Prep Date/Time					

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-018B

Lab ID: 2013-1224

Collection Date: 4/17/2013 1:30:00 PM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 13041811 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	40.4	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	0.71	0.5	0.2		ug/L
Barium	16.9	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	12.5	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	11.8	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	0.87	0.5	0.2		ug/L
Iron	168	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.59	0.02	0.01		mg/L
Manganese	211	0.3	0.07		ug/L
Nickel	0.92	0.5	0.15		ug/L
Potassium	1.80	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	2.17	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	4.82	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	3.61	1	0.3		ug/L
Hardness	36.0	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 18 2013 11:18AM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 13041813 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

		<u>Limit</u>		
Aluminum	314	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	1.02	1	0.5	ug/L
Barium	22.5	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	13.8	0.04	0.04	mg/L
Chromium	<1	1	0.3	ug/L
Cobalt	<1	1	0.5	ug/L
Copper	1.13	1	0.5	ug/L
Iron	717	20	10.0	ug/L
Lead	<1	1	0.1	ug/L
Magnesium	1.72	0.1	0.1	mg/L
Manganese	345	1	0.2	ug/L
Nickel	<2.5	2.5	0.5	ug/L
Potassium	1.93	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	5.02	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	4.68	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 18 2013 1:19PM			
Prep By				
Prep Date/Time				

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-019

Lab ID: 2013-1225

Collection Date: 4/17/2013 3:00:00 PM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 13041811 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Aluminum	401	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	3.12	0.5	0.2		ug/L
Barium	61.6	2	0.4		ug/L
Beryllium	<0.1	0.1	0.04		ug/L
Boron	12.9	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	9.04	0.03	0.03		mg/L
Chromium	0.64	0.5	0.05		ug/L
Cobalt	1.88	0.5	0.05		ug/L
Copper	1.7	0.5	0.2		ug/L
Iron	461	20	5.0		ug/L
Lead	0.74	0.3	0.02		ug/L
Magnesium	2.48	0.02	0.01		mg/L
Manganese	1630	0.3	0.07		ug/L
Nickel	2.74	0.5	0.15		ug/L
Potassium	4.35	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	5.68	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	2.68	0.02	0.01		mg/L
Thallium	<0.5	0.5	0.005		ug/L
Vanadium	1.42	0.5	0.3		ug/L
Zinc	18.2	1	0.3		ug/L
Hardness	32.8	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 18 2013 11:24AM				

Total Metals by EPA 200.8

EPA 200.8

Batch: 13041811 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

		<u>Limit</u>		
Aluminum	2830	20	20	ug/L
Antimony	<10	10	5	ug/L
Arsenic	4.53	1	0.5	ug/L
Beryllium	0.80	0.5	0.1	ug/L
Boron	<25	25	5.0	ug/L
Cadmium	1.34	1	0.3	ug/L
Calcium	26.6	0.04	0.04	mg/L
Chromium	2.26	1	0.3	ug/L
Cobalt	11.8	1	0.5	ug/L
Copper	11.3	1	0.5	ug/L
Lead	14	1	0.1	ug/L
Magnesium	4.09	0.1	0.1	mg/L
Nickel	19.9	2.5	0.5	ug/L
Potassium	5.06	1	0.05	mg/L
Selenium	<2	2	0.5	ug/L
Silver	<5	5	1.0	ug/L
Sodium	2.73	0.04	0.02	mg/L
Thallium	<2.5	2.5	0.05	ug/L
Vanadium	5.88	2.5	1.0	ug/L
Zinc	118	3	2.0	ug/L
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 18 2013 1:25PM			
Prep By				
Prep Date/Time				

Total Metals by EPA 200.8

EPA 200.8

Batch: 13041813 Run: 2

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Barium	501	100	2.0		ug/L
Iron	3900	200	10.0		ug/L
Manganese	9120	10	0.2		ug/L
Dilution Factor	10				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 18 2013 2:36PM				
Prep By					
Prep Date/Time					

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: Metals Field Blank

Lab ID: 2013-1226

Collection Date: 4/17/2013 3:30:00 PM

Matrix: Water

Analyses

Dissolved Metals by EPA 200.8

EPA 200.8

Batch: 13041811 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	0.069	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	<0.5	0.5	0.2		ug/L
Iron	<20	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	<0.02	0.02	0.01		mg/L
Manganese	1.33	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	0.336	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	0.164	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	1.70	1	0.3		ug/L
Hardness	<1	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	Apr 18 2013 11:31AM				

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-018S

Lab ID: 2013-1223

Collection Date: 4/17/2013 1:20:00 PM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 13041810 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 13041815 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
2-Fluorophenol (% Recovery)	31.5	40-110			%
Nitrobenzene-d5 (% Recovery)	74.1	50-110			%
2-Fluorobiphenyl (% Recovery)	68.3	50-110			%
2,4,6-Tribromophenol (% Recovery)	61.5	40-110			%
Terphenyl-d14 (% Recovery)	73.2	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

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

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

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

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	4/18/2013 5:54 PM			
Prep By	Ed Harris			
Prep Date/Time	4/18/2012 08:00			

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-018B

Lab ID: 2013-1224

Collection Date: 4/17/2013 1:30:00 PM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 13041810 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 13041815 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
2-Fluorophenol (% Recovery)	34.6	40-110			%
Nitrobenzene-d5 (% Recovery)	77.7	50-110			%
2-Fluorobiphenyl (% Recovery)	67.7	50-110			%
2,4,6-Tribromophenol (% Recovery)	62.2	40-110			%
Terphenyl-d14 (% Recovery)	69.5	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

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

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

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

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	4/18/2013 6:23 PM			
Prep By	Ed Harris			
Prep Date/Time	4/18/2012 08:00			

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-019

Lab ID: 2013-1225

Collection Date: 4/17/2013 3:00:00 PM

Matrix: Water

Analyses

Oil and Grease

EPA1664

Batch: 13041810 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Oil and Grease	<2.5	2.5	2.5		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

Semi-Volatiles by GC/MS

EPA 3510C/EPA 8270D

Batch: 13041815 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
2-Fluorophenol (% Recovery)	26.8	40-110			%
Nitrobenzene-d5 (% Recovery)	66.8	50-110			%
2-Fluorobiphenyl (% Recovery)	66.5	50-110			%
2,4,6-Tribromophenol (% Recovery)	35.9	40-110			%
Terphenyl-d14 (% Recovery)	44.4	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

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

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	0.442	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	4/18/2013 6:52 PM			
Prep By	Ed Harris			
Prep Date/Time	4/18/2012 08:00			

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-018S

Lab ID: 2013-1223

Collection Date: 4/17/2013 1:20:00 PM

Matrix: Water

Analyses

<i>Turbidity</i>		<i>EPA 180.1</i>	<i>Batch: 13041802</i>		<i>Run: 1</i>	
	<u>Result</u>		<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	20.6		0.02	0.02		NTU
Dilution Factor	1					
Analyzed By	Penny Semberski					
Analysis Date/Time	4/18/2013 10:24					

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-018B

Lab ID: 2013-1224

Collection Date: 4/17/2013 1:30:00 PM

Matrix: Water

Analyses

<i>Turbidity</i>		<i>EPA 180.1</i>	<i>Batch: 13041802</i>		<i>Run: 1</i>	
	<u>Result</u>		<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	15.1		0.02	0.02		NTU
Dilution Factor	1					
Analyzed By	Penny Semberski					
Analysis Date/Time	4/18/2013 10:30					

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-019

Lab ID: 2013-1225

Collection Date: 4/17/2013 3:00:00 PM

Matrix: Water

Analyses

Turbidity

EPA 180.1

Batch: 13041802 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
Turbidity	380	0.06	0.02		NTU
Dilution Factor	3				
Analyzed By	Penny Semberski				
Analysis Date/Time	4/18/2013 10:36				

Client: Special Samples

Client Sample ID: WS-018S

Lab ID: 2013-1223

Collection Date: 4/17/2013 1:20:00 PM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 13041807 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
<i>Dibromofluoromethane (% Recovery)</i>	99.9	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	93.1	70-130			%
<i>Toluene-d8 (% Recovery)</i>	92.9	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	104	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
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	4/18/2013 11:30 AM			

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-018B

Lab ID: 2013-1224

Collection Date: 4/17/2013 1:30:00 PM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 13041807 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
<i>Dibromofluoromethane (% Recovery)</i>	98.1	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	92.3	70-130			%
<i>Toluene-d8 (% Recovery)</i>	92.9	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	99.8	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
1,1,2,2-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
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	4/18/2013 10:39 AM			

Client: Special Samples

Client Sample ID: WS-019

Lab ID: 2013-1225

Collection Date: 4/17/2013 3:00:00 PM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 13041807 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
<i>Dibromofluoromethane (% Recovery)</i>	93.9	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	89.2	70-130			%
<i>Toluene-d8 (% Recovery)</i>	92.8	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	97.1	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	1.04	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
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	4/18/2013 11:05 AM			

Client: Special Samples

Client Sample ID: Volatiles Trip Blank

Lab ID: 2013-1227

Collection Date: 4/17/2013 3:30:00 PM

Matrix: Water

Analyses

Volatile Organics by GCMS

EPA 8260C

Batch: 13041807 Run: 1

	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>	<u>Unit</u>
<i>Dibromofluoromethane (% Recovery)</i>	97.3	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	90.8	70-130			%
<i>Toluene-d8 (% Recovery)</i>	93.8	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	96.5	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
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	4/18/2013 10:14 AM			

Analytical Quality Control Results Report

Batch: 13041815	Semi-VOA water (Prep)
WS-018S	LIMS ID: 2013-1223

Semi 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>
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	4/18/2012 08:00				
2-Fluorophenol (% Recovery)	33.4 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	75.8 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	64.9 %			40 - 110	
2,4,6-Tribromophenol (% Recovery)	67.1 %			40 - 110	
Terphenyl-d14 (% Recovery)	66.7 %			40 - 125	
Methyl Methanesulfonate	<0.2 ug/L	0.2	0.2		
Methyl Methanesulfonate (RPD)	0 %				0 - 40
Ethyl methanesulfonate (RPD)	0 %				0 - 40
Ethyl methanesulfonate	<0.2 ug/L	0.2	0.2		
Phenol	<0.2 ug/L	0.2	0.2		
Phenol (RPD)	0 %				0 - 40
Aniline (RPD)	0 %				0 - 40
Aniline	<0.2 ug/L	0.2	0.2		
Bis(2-chloroethyl)ether	<0.24 ug/L	0.2	0.24		
Bis(2-chloroethyl)ether (RPD)	0 %				0 - 40
2-Chlorophenol (RPD)	0 %				0 - 40
2-Chlorophenol	<0.2 ug/L	0.2	0.2		
1,3-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
1,3-Dichlorobenzene (RPD)	0 %				0 - 40
1,4-Dichlorobenzene (RPD)	0 %				0 - 40
1,4-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
Benzyl alcohol	<0.16 ug/L	0.16	0.16		
Benzyl alcohol (RPD)	5.3 %				0 - 40
1,2-Dichlorobenzene (RPD)	0 %				0 - 40
1,2-Dichlorobenzene	<0.12 ug/L	0.12	0.12		
2-Methylphenol	<0.1 ug/L	0.1	0.1		
2-Methylphenol (RPD)	0 %				0 - 40

Acetophenone (RPD)	0 %			0 - 40
Acetophenone	<0.1 ug/L	0.1	0.1	
4-Methylphenol	<0.1 ug/L	0.1	0.1	
4-Methylphenol (RPD)	0 %			0 - 40
N-Nitrosodi-n-propylamine (RPD)	0 %			0 - 40
N-Nitrosodi-n-propylamine	<0.2 ug/L	0.2	0.2	
Hexachloroethane	<0.2 ug/L	0.2	0.2	
Hexachloroethane (RPD)	0 %			0 - 40
Nitrobenzene (RPD)	0 %			0 - 40
Nitrobenzene	<0.2 ug/L	0.2	0.2	
N-Nitrosopiperidine	<0.2 ug/L	0.2	0.2	
N-Nitrosopiperidine (RPD)	0 %			0 - 40
Isophorone (RPD)	0 %			0 - 40
Isophorone	<0.1 ug/L	0.1	0.1	
2-Nitrophenol	<0.3 ug/L	0.3	0.3	
2-Nitrophenol (RPD)	0 %			0 - 40
2,4-Dimethylphenol (RPD)	0 %			0 - 40
2,4-Dimethylphenol	<0.1 ug/L	0.1	0.1	
Bis(2-chloroethoxy)methane	<0.2 ug/L	0.2	0.2	
Bis(2-chloroethoxy)methane (RPD)	0 %			0 - 40
2,4-Dichlorophenol (RPD)	0 %			0 - 40
2,4-Dichlorophenol	<0.2 ug/L	0.2	0.2	
1,2,4-Trichlorobenzene	<0.12 ug/L	0.12	0.12	
1,2,4-Trichlorobenzene (RPD)	0 %			0 - 40
Naphthalene (RPD)	0 %			0 - 40
Naphthalene	<0.08 ug/L	0.08	0.08	
4-Chloroaniline	<0.1 ug/L	0.1	0.1	
4-Chloroaniline (RPD)	0 %			0 - 40
2,6-Dichlorophenol (RPD)	0 %			0 - 40
2,6-Dichlorophenol	<0.2 ug/L	0.2	0.2	
Hexachlorobutadiene (RPD)	0 %			0 - 40
Hexachlorobutadiene	<0.2 ug/L	0.2	0.2	
N-Nitrosodibutylamine	<0.24 ug/L	0.2	0.24	
N-Nitrosodibutylamine (RPD)	0 %			0 - 40
4-Chloro-3-methylphenol (RPD)	8.8 %			0 - 40
4-Chloro-3-methylphenol	<0.16 ug/L	0.16	0.16	
2-Methylnaphthalene	<0.1 ug/L	0.1	0.1	
2-Methylnaphthalene (RPD)	0 %			0 - 40
1,2,4,5-Tetrachlorobenzene	<0.1 ug/L	0.1	0.1	
1,2,4,5-Tetrachlorobenzene (RPD)	0 %			0 - 40

Hexachlorocyclopentadiene (RPD)	0 %			0 - 40
Hexachlorocyclopentadiene	<0.16 ug/L	0.16	0.16	
2,4,6-Trichlorophenol (RPD)	0 %			0 - 40
2,4,6-Trichlorophenol	<0.4 ug/L	0.2	0.4	
2,4,5-Trichlorophenol	<0.2 ug/L	0.2	0.2	
2,4,5-Trichlorophenol (RPD)	0 %			0 - 40
2-Chloronaphthalene (RPD)	0 %			0 - 40
2-Chloronaphthalene	<0.1 ug/L	0.1	0.1	
1-Chloronaphthalene	<0.1 ug/L	0.1	0.1	
1-Chloronaphthalene (RPD)	0 %			0 - 40
2-Nitroaniline (RPD)	0 %			0 - 40
2-Nitroaniline	<0.2 ug/L	0.2	0.2	
Dimethyl phthalate	<0.2 ug/L	0.2	0.2	
Dimethyl phthalate (RPD)	0 %			0 - 40
2,6-Dinitrotoluene (RPD)	0 %			0 - 40
2,6-Dinitrotoluene	<0.2 ug/L	0.2	0.2	
Acenaphthylene	<0.08 ug/L	0.08	0.08	
Acenaphthylene (RPD)	0 %			0 - 40
3-Nitroaniline (RPD)	0 %			0 - 40
3-Nitroaniline	<0.2 ug/L	0.2	0.2	
Acenaphthene	<0.1 ug/L	0.1	0.1	
Acenaphthene (RPD)	0 %			0 - 40
2,4-Dinitrophenol (RPD)	0 %			0 - 40
2,4-Dinitrophenol	<4 ug/L	4	4	
Pentachlorobenzene	<0.12 ug/L	0.12	0.12	
Pentachlorobenzene (RPD)	0 %			0 - 40
4-Nitrophenol (RPD)	0 %			0 - 40
4-Nitrophenol	<2 ug/L	2	2	
Dibenzofuran	<0.1 ug/L	0.1	0.1	
Dibenzofuran (RPD)	0 %			0 - 40
2,4-Dinitrotoluene (RPD)	0 %			0 - 40
2,4-Dinitrotoluene	<0.2 ug/L	0.2	0.2	
2,3,4,6-Tetrachlorophenol	<0.6 ug/L	0.6	0.6	
2,3,4,6-Tetrachlorophenol (RPD)	0 %			0 - 40
Diethyl phthalate (RPD)	0 %			0 - 40
Diethyl phthalate	<0.4 ug/L	0.2	0.4	
Fluorene	<0.1 ug/L	0.1	0.1	
Fluorene (RPD)	0 %			0 - 40
4-Chlorophenyl phenyl ether (RPD)	0 %			0 - 40
4-Chlorophenyl phenyl ether	<0.1 ug/L	0.1	0.1	

4-Nitroaniline	<0.3 ug/L	0.2	0.3	
4-Nitroaniline (RPD)	0 %			0 - 40
4,6-Dinitro-2-methylphenol (RPD)	0 %			0 - 40
4,6-Dinitro-2-methylphenol	<6 ug/L	6	6	
Diphenylamine	<0.1 ug/L	0.1	0.1	
Diphenylamine (RPD)	0 %			0 - 40
Azobenzene (RPD)	0 %			0 - 40
Azobenzene	<0.08 ug/L	0.08	0.08	
4-Bromophenyl phenyl ether	<0.2 ug/L	0.2	0.2	
4-Bromophenyl phenyl ether (RPD)	0 %			0 - 40
Hexachlorobenzene (RPD)	0 %			0 - 40
Hexachlorobenzene	<0.16 ug/L	0.16	0.16	
Pentachlorophenol	<1 ug/L	1	1	
Pentachlorophenol (RPD)	0 %			0 - 40
Pentachloronitrobenzene (RPD)	0 %			0 - 40
Pentachloronitrobenzene	<0.2 ug/L	0.2	0.2	
Pronamide	<0.2 ug/L	0.2	0.2	
Pronamide (RPD)	0 %			0 - 40
Phenanthrene (RPD)	0 %			0 - 40
Phenanthrene	<0.08 ug/L	0.08	0.08	
Anthracene	<0.08 ug/L	0.08	0.08	
Anthracene (RPD)	0 %			0 - 40
Carbazole (RPD)	0 %			0 - 40
Carbazole	<0.1 ug/L	0.1	0.1	
Di-n-butyl phthalate	<0.2 ug/L	0.2	0.2	
Di-n-butyl phthalate (RPD)	0 %			0 - 40
Fluoranthene (RPD)	0 %			0 - 40
Fluoranthene	<0.08 ug/L	0.08	0.08	
Pyrene	<0.08 ug/L	0.08	0.08	
Pyrene (RPD)	0 %			0 - 40
Dimethylaminoazobenzene (RPD)	0 %			0 - 40
Dimethylaminoazobenzene	<0.2 ug/L	0.2	0.2	
Butyl benzyl phthalate	<0.4 ug/L	0.4	0.4	
Butyl benzyl phthalate (RPD)	0 %			0 - 40
Benzo (a) anthracene (RPD)	0 %			0 - 40
Benzo (a) anthracene	<0.1 ug/L	0.1	0.1	
Chrysene	<0.1 ug/L	0.1	0.1	
Chrysene (RPD)	0 %			0 - 40
Bis(2-ethylhexyl)phthalate (RPD)	67.2 %			0 - 40
Bis(2-ethylhexyl)phthalate	<0.3 ug/L	0.3	0.3	

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

Di-n-octyl phthalate	<0.3 ug/L	0.3	0.3
Di-n-octyl phthalate (RPD)	8.9 %		0 - 40
Benzo (b) fluoranthene (RPD)	0 %		0 - 40
Benzo (b) fluoranthene	<0.16 ug/L	0.16	0.16
7,12-Dimethylbenz (a) anthracene	<0.2 ug/L	0.2	0.2
7,12-Dimethylbenz (a) anthracene (RPD)	0 %		0 - 40
Benzo (k) fluoranthene (RPD)	0 %		0 - 40
Benzo (k) fluoranthene	<0.16 ug/L	0.16	0.16
Benzo (a) pyrene	<0.16 ug/L	0.16	0.16
Benzo (a) pyrene (RPD)	0 %		0 - 40
3-Methylcholanthrene (RPD)	0 %		0 - 40
3-Methylcholanthrene	<0.2 ug/L	0.2	0.2
Indeno (1,2,3-cd) pyrene	<0.2 ug/L	0.2	0.2
Indeno (1,2,3-cd) pyrene (RPD)	0 %		0 - 40
Dibenzo (a,h) anthracene (RPD)	0 %		0 - 40
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
Benzo (g,h,i) perylene (RPD)	0 %		0 - 40
Dilution Factor	1		
Analyzed By	Ed Harris		
Analysis Date/Time	4/18/2013 7:21 PM		

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

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	4/18/2012 08:00				
2-Fluorophenol (% Recovery)	36.9 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	77.1 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	73.3 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	72.2 %			40 - 125	
Terphenyl-d14 (% Recovery)	72.0 %			40 - 125	
Phenol (% Recovery)	19.1 %			25 - 125	
2-Chlorophenol (% Recovery)	50.3 %			25 - 125	
1,4-Dichlorobenzene (% Recovery)	76.9 %			25 - 125	
N-Nitrosodi-n-propylamine (% Recovery)	83.5 %			25 - 125	
1,2,4-Trichlorobenzene (% Recovery)	77.0 %			25 - 125	

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

4-Chloro-3-methylphenol (% Recovery)	39.3 %	25 - 125
Acenaphthene (% Recovery)	82.3 %	25 - 125
4-Nitrophenol (% Recovery)	20.5 %	25 - 125
2,4-Dinitrotoluene (% Recovery)	82.0 %	25 - 125
Pentachlorophenol (% Recovery)	70.7 %	25 - 125
Pyrene (% Recovery)	91.3 %	25 - 125
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	4/18/2013 7:50 PM	

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

Semi Volatiles - water MSD

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	4/18/2012 08:00				
2-Fluorophenol (% Recovery)	35.6 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	78.3 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	60.8 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	64.6 %			40 - 125	
Terphenyl-d14 (% Recovery)	71.4 %			40 - 125	
Phenol (% Recovery)	18.7 %			25 - 125	
Phenol (RPD)	2.2 %				0 - 40
2-Chlorophenol (% Recovery)	48.4 %			25 - 125	
2-Chlorophenol (RPD)	3.8 %				0 - 40
1,4-Dichlorobenzene (RPD)	15.9 %				0 - 40
1,4-Dichlorobenzene (% Recovery)	65.6 %			25 - 125	
N-Nitrosodi-n-propylamine (% Recovery)	84.9 %			25 - 125	
N-Nitrosodi-n-propylamine (RPD)	1.7 %				0 - 40
1,2,4-Trichlorobenzene (RPD)	4.9 %				0 - 40
1,2,4-Trichlorobenzene (% Recovery)	73.4 %			25 - 125	
4-Chloro-3-methylphenol (% Recovery)	41.7 %			25 - 125	
4-Chloro-3-methylphenol (RPD)	5.9 %				0 - 40
Acenaphthene (% Recovery)	81.2 %			25 - 125	
Acenaphthene (RPD)	1.3 %				0 - 40
4-Nitrophenol (% Recovery)	20.7 %			25 - 125	
4-Nitrophenol (RPD)	1.0 %				0 - 40
2,4-Dinitrotoluene (% Recovery)	78.5 %			25 - 125	

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

2,4-Dinitrotoluene (RPD)	4.3 %	0 - 40
Pentachlorophenol (% Recovery)	74.7 %	25 - 125
Pentachlorophenol (RPD)	5.4 %	0 - 40
Pyrene (% Recovery)	88.0 %	25 - 125
Pyrene (RPD)	3.8 %	0 - 40
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	4/18/2013 8:20 PM	

MB	LIMS ID: 13041815-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	4/18/2012 08:00				
2-Fluorophenol (% Recovery)	34.9 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	82.3 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	65.4 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	72.8 %			40 - 125	
Terphenyl-d14 (% Recovery)	84.5 %			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		

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

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

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

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	1.09 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	4/18/2013 20:49		

LCS	LIMS ID: 13041815-LCS-01
------------	---------------------------------

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	4/18/2012 08:00				
2-Fluorophenol (% Recovery)	42.4 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	84.3 %			50 - 125	
2-Fluorobiphenyl (% Recovery)	68.5 %			50 - 125	
2,4,6-Tribromophenol (% Recovery)	74.9 %			40 - 125	
Terphenyl-d14 (% Recovery)	87.5 %			50 - 125	
Methyl Methanesulfonate (% Recovery)	74.2 %			50 - 150	

Ethyl methanesulfonate (% Recovery)	95.8 %	50 - 150
Phenol (% Recovery)	36.6 %	50 - 150
Aniline (% Recovery)	64.6 %	50 - 150
Bis(2-chloroethyl)ether (% Recovery)	101 %	50 - 150
2-Chlorophenol (% Recovery)	91.9 %	50 - 150
1,3-Dichlorobenzene (% Recovery)	77.1 %	50 - 150
1,4-Dichlorobenzene (% Recovery)	74.2 %	50 - 150
Benzyl alcohol (% Recovery)	79.1 %	50 - 150
1,2-Dichlorobenzene (% Recovery)	78.2 %	50 - 150
2-Methylphenol (% Recovery)	73.4 %	50 - 150
Acetophenone (% Recovery)	109 %	50 - 150
4-Methylphenol (% Recovery)	61.1 %	50 - 150
N-Nitrosodi-n-propylamine (% Recovery)	100 %	50 - 150
Hexachloroethane (% Recovery)	62.8 %	50 - 150
Nitrobenzene (% Recovery)	101 %	50 - 150
N-Nitrosopiperidine (% Recovery)	104 %	50 - 150
Isophorone (% Recovery)	105 %	50 - 150
2-Nitrophenol (% Recovery)	105 %	50 - 150
2,4-Dimethylphenol (% Recovery)	6.4 %	50 - 150
Bis(2-chloroethoxy)methane (% Recovery)	78.5 %	50 - 150
2,4-Dichlorophenol (% Recovery)	89.0 %	50 - 150
1,2,4-Trichlorobenzene (% Recovery)	83.0 %	50 - 150
Naphthalene (% Recovery)	90.4 %	50 - 150
4-Chloroaniline (% Recovery)	82.8 %	50 - 150
2,6-Dichlorophenol (% Recovery)	104 %	50 - 150
Hexachlorobutadiene (% Recovery)	74.5 %	50 - 150
N-Nitrosodibutylamine (% Recovery)	108 %	50 - 150
4-Chloro-3-methylphenol (% Recovery)	84.7 %	50 - 150
2-Methylnaphthalene (% Recovery)	92.2 %	50 - 150
1,2,4,5-Tetrachlorobenzene (% Recovery)	85.3 %	50 - 150
Hexachlorocyclopentadiene (% Recovery)	45.9 %	50 - 150
2,4,6-Trichlorophenol (% Recovery)	93.8 %	50 - 150
2,4,5-Trichlorophenol (% Recovery)	82.8 %	50 - 150
2-Chloronaphthalene (% Recovery)	86.8 %	50 - 150
1-Chloronaphthalene (% Recovery)	78.3 %	50 - 150
2-Nitroaniline (% Recovery)	101 %	50 - 150
Dimethyl phthalate (% Recovery)	92.7 %	50 - 150
2,6-Dinitrotoluene (% Recovery)	106 %	50 - 150
Acenaphthylene (% Recovery)	88.0 %	50 - 150
3-Nitroaniline (% Recovery)	93.7 %	50 - 150

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

Acenaphthene (% Recovery)	90.7 %	50 - 150
2,4-Dinitrophenol (% Recovery)	103 %	50 - 150
Pentachlorobenzene (% Recovery)	84.6 %	50 - 150
4-Nitrophenol (% Recovery)	36.2 %	50 - 150
Dibenzofuran (% Recovery)	96.1 %	50 - 150
2,4-Dinitrotoluene (% Recovery)	97.9 %	50 - 150
2,3,4,6-Tetrachlorophenol (% Recovery)	99.5 %	50 - 150
Diethyl phthalate (% Recovery)	98.8 %	50 - 150
Fluorene (% Recovery)	96.9 %	50 - 150
4-Chlorophenyl phenyl ether (% Recovery)	96.0 %	50 - 150
4-Nitroaniline (% Recovery)	89.2 %	50 - 150
4,6-Dinitro-2-methylphenol (% Recovery)	110 %	50 - 150
Diphenylamine (% Recovery)	96.4 %	50 - 150
Azobenzene (% Recovery)	101 %	50 - 150
4-Bromophenyl phenyl ether (% Recovery)	99.8 %	50 - 150
Hexachlorobenzene (% Recovery)	94.1 %	50 - 150
Pentachlorophenol (% Recovery)	104 %	50 - 150
Pentachloronitrobenzene (% Recovery)	103 %	50 - 150
Pronamide (% Recovery)	112 %	50 - 150
Phenanthrene (% Recovery)	101 %	50 - 150
Anthracene (% Recovery)	100 %	50 - 150
Carbazole (% Recovery)	110 %	50 - 150
Di-n-butyl phthalate (% Recovery)	163 %	50 - 150
Fluoranthene (% Recovery)	106 %	50 - 150
Pyrene (% Recovery)	107 %	50 - 150
Dimethylaminoazobenzene (% Recovery)	102 %	50 - 150
Butyl benzyl phthalate (% Recovery)	112 %	50 - 150
Benzo (a) anthracene (% Recovery)	92.5 %	50 - 150
Chrysene (% Recovery)	95.3 %	50 - 150
Bis(2-ethylhexyl)phthalate (% Recovery)	109 %	50 - 150
Di-n-octyl phthalate (% Recovery)	101 %	50 - 150
Benzo (b) fluoranthene (% Recovery)	80.2 %	50 - 150
7,12-Dimethylbenz (a) anthracene (% Recovery)	75.0 %	50 - 150
Benzo (k) fluoranthene (% Recovery)	73.6 %	50 - 150
Benzo (a) pyrene (% Recovery)	71.9 %	50 - 150
3-Methylcholanthrene (% Recovery)	68.7 %	50 - 150
Indeno (1,2,3-cd) pyrene (% Recovery)	62.1 %	50 - 150
Dibenzo (a,h) anthracene (% Recovery)	64.3 %	50 - 150
Benzo (g,h,i) perylene (% Recovery)	57.5 %	50 - 150
Dilution Factor	1	

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

Analyzed By	Ed Harris
Analysis Date/Time	4/18/2013 21:19

Analytical Quality Control Results Report

Batch: 13041807	VOA - water
WS-018S	LIMS ID: 2013-1223

Volatiles - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Dibromofluoromethane (% Recovery)	99.1 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	93.1 %			70 - 130	
Toluene-d8 (% Recovery)	95.9 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	101 %			70 - 130	
Dichlorodifluoromethane	<1.12 ug/L	1.12	1.12		
Dichlorodifluoromethane (RPD)	0 %				0 - 20
Chloromethane (RPD)	0 %				0 - 20
Chloromethane	<0.58 ug/L	0.58	0.58		
Vinyl chloride	<0.82 ug/L	0.82	0.82		
Vinyl chloride (RPD)	0 %				0 - 20
Bromomethane (RPD)	0 %				0 - 20
Bromomethane	<3.9 ug/L	3.9	3.9		
Chloroethane	<2.68 ug/L	2.68	2.68		
Chloroethane (RPD)	0 %				0 - 20
Trichlorofluoromethane	<0.51 ug/L	0.51	0.51		
Trichlorofluoromethane (RPD)	0 %				0 - 20
1,1-Dichloroethene	<0.43 ug/L	0.43	0.43		
1,1-Dichloroethene (RPD)	0 %				0 - 20
Acetone	<10.5 ug/L	10.5	10.5		
Acetone (RPD)	2.0 %				0 - 20
Methylene chloride (RPD)	2.5 %				0 - 20
Methylene chloride	<2.5 ug/L	2.5	2.5		
Methyl tert-butyl ether	<0.83 ug/L	0.83	0.83		
Methyl tert-butyl ether (RPD)	0 %				0 - 20
trans-1,2-Dichloroethene (RPD)	0 %				0 - 20
trans-1,2-Dichloroethene	<0.59 ug/L	0.59	0.59		
1,1-Dichloroethane (RPD)	0 %				0 - 20
1,1-Dichloroethane	<0.42 ug/L	0.42	0.42		
Methyl ethyl ketone (RPD)	0 %				0 - 20
Methyl ethyl ketone	<12.8 ug/L	12.8	12.8		
cis-1,2-Dichloroethene	<1.15 ug/L	1.15	1.15		
cis-1,2-Dichloroethene (RPD)	0 %				0 - 20
2,2-Dichloropropane (RPD)	0 %				0 - 20

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

2,2-Dichloropropane	<0.81 ug/L	0.81	0.81
Bromochloromethane	<0.66 ug/L	0.66	0.66
Bromochloromethane (RPD)	0 %		0 - 20
Chloroform (RPD)	0 %		0 - 20
Chloroform	<0.27 ug/L	0.27	0.27
1,1,1-Trichloroethane	<0.46 ug/L	0.46	0.46
1,1,1-Trichloroethane (RPD)	0 %		0 - 20
1,1-Dichloropropene	<0.59 ug/L	0.59	0.59
1,1-Dichloropropene (RPD)	0 %		0 - 20
Carbon tetrachloride	<0.6 ug/L	0.6	0.6
Carbon tetrachloride (RPD)	0 %		0 - 20
Benzene (RPD)	0 %		0 - 20
Benzene	<0.66 ug/L	0.66	0.66
1,2-Dichloroethane	<1.15 ug/L	1.15	1.15
1,2-Dichloroethane (RPD)	0 %		0 - 20
Trichloroethene	<0.6 ug/L	0.6	0.6
Trichloroethene (RPD)	0 %		0 - 20
1,2-Dichloropropane (RPD)	0 %		0 - 20
1,2-Dichloropropane	<0.98 ug/L	0.98	0.98
Dibromomethane	<1.78 ug/L	1.78	1.78
Dibromomethane (RPD)	0 %		0 - 20
Bromodichloromethane (RPD)	0 %		0 - 20
Bromodichloromethane	<0.65 ug/L	0.65	0.65
cis-1,3-Dichloropropene	<0.86 ug/L	0.86	0.86
cis-1,3-Dichloropropene (RPD)	0 %		0 - 20
Methyl isobutyl ketone (RPD)	0 %		0 - 20
Methyl isobutyl ketone	<8.1 ug/L	8.1	8.1
Toluene	<0.57 ug/L	0.57	0.57
Toluene (RPD)	0 %		0 - 20
trans-1,3-Dichloropropene (RPD)	0 %		0 - 20
trans-1,3-Dichloropropene	<0.84 ug/L	0.84	0.84
1,1,2-Trichloroethane	<0.78 ug/L	0.78	0.78
1,1,2-Trichloroethane (RPD)	0 %		0 - 20
2-Hexanone (RPD)	0 %		0 - 20
2-Hexanone	<9.5 ug/L	9.5	9.5
Tetrachloroethene	<0.96 ug/L	0.96	0.96
Tetrachloroethene (RPD)	0 %		0 - 20
1,3-Dichloropropane (RPD)	0 %		0 - 20
1,3-Dichloropropane	<0.94 ug/L	0.94	0.94
Dibromochloromethane	<1.25 ug/L	1.25	1.25

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

Dibromochloromethane (RPD)	0 %		0 - 20
1,2-Dibromoethane (EDB) (RPD)	0 %		0 - 20
1,2-Dibromoethane (EDB)	<0.68 ug/L	0.68	0.68
Chlorobenzene	<0.62 ug/L	0.62	0.62
Chlorobenzene (RPD)	0 %		0 - 20
Ethylbenzene (RPD)	0 %		0 - 20
Ethylbenzene	<0.51 ug/L	0.51	0.51
1,1,1,2-Tetrachloroethane (RPD)	0 %		0 - 20
1,1,1,2-Tetrachloroethane	<0.57 ug/L	0.57	0.57
m,p-Xylene (RPD)	0 %		0 - 20
m,p-Xylene	<1.2 ug/L	1.2	1.2
o-Xylene	<0.5 ug/L	0.5	0.5
o-Xylene (RPD)	0 %		0 - 20
Styrene (RPD)	0 %		0 - 20
Styrene	<0.53 ug/L	0.53	0.53
Bromoform (RPD)	0 %		0 - 20
Bromoform	<1.56 ug/L	1.56	1.56
Isopropylbenzene	<0.59 ug/L	0.59	0.59
Isopropylbenzene (RPD)	0 %		0 - 20
1,1,2,2-Tetrachloroethane (RPD)	0 %		0 - 20
1,1,2,2-Tetrachloroethane	<0.39 ug/L	0.39	0.39
1,2,3-Trichloropropane (RPD)	0 %		0 - 20
1,2,3-Trichloropropane	<1.83 ug/L	1.83	1.83
n-Propylbenzene (RPD)	0 %		0 - 20
n-Propylbenzene	<0.49 ug/L	0.49	0.49
Bromobenzene	<0.5 ug/L	0.5	0.5
Bromobenzene (RPD)	0 %		0 - 20
1,3,5-Trimethylbenzene	<0.3 ug/L	0.3	0.3
1,3,5-Trimethylbenzene (RPD)	0 %		0 - 20
2-Chlorotoluene (RPD)	0 %		0 - 20
2-Chlorotoluene	<0.66 ug/L	0.66	0.66
4-Chlorotoluene (RPD)	0 %		0 - 20
4-Chlorotoluene	<0.8 ug/L	0.8	0.8
tert-Butylbenzene	<0.85 ug/L	0.85	0.85
tert-Butylbenzene (RPD)	0 %		0 - 20
1,2,4-Trimethylbenzene (RPD)	0 %		0 - 20
1,2,4-Trimethylbenzene	<0.46 ug/L	0.46	0.46
sec-Butylbenzene	<0.63 ug/L	0.63	0.63
sec-Butylbenzene (RPD)	0 %		0 - 20
p-Isopropyltoluene (RPD)	0 %		0 - 20

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

p-Isopropyltoluene	<0.59 ug/L	0.59	0.59	
1,3-Dichlorobenzene (RPD)	0 %			0 - 20
1,3-Dichlorobenzene	<0.7 ug/L	0.7	0.7	
1,4-Dichlorobenzene	<0.53 ug/L	0.53	0.53	
1,4-Dichlorobenzene (RPD)	0 %			0 - 20
n-Butylbenzene	<0.72 ug/L	0.72	0.72	
n-Butylbenzene (RPD)	0 %			0 - 20
1,2-Dichlorobenzene (RPD)	0 %			0 - 20
1,2-Dichlorobenzene	<0.7 ug/L	0.7	0.7	
1,2-Dibromo-3-chloropropane	<0.86 ug/L	0.86	0.86	
1,2-Dibromo-3-chloropropane (RPD)	0 %			0 - 20
1,2,4-Trichlorobenzene (RPD)	0 %			0 - 20
1,2,4-Trichlorobenzene	<1.14 ug/L	1.14	1.14	
Naphthalene	<1.53 ug/L	1.53	1.53	
Naphthalene (RPD)	0 %			0 - 20
1,2,3-Trichlorobenzene	<1.3 ug/L	1.3	1.3	
1,2,3-Trichlorobenzene (RPD)	0 %			0 - 20
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	4/18/2013 11:55 AM			

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

Volatiles - water MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Dibromofluoromethane (% Recovery)	97.5 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	94.1 %			70 - 130	
Toluene-d8 (% Recovery)	89.9 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	96.4 %			70 - 130	
1,1-Dichloroethene (% Recovery)	104 %			70 - 130	
Benzene (% Recovery)	100 %			70 - 130	
Trichloroethene (% Recovery)	99.6 %			70 - 130	
Toluene (% Recovery)	91.3 %			70 - 130	
Chlorobenzene (% Recovery)	94.4 %			70 - 130	
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	4/18/2013 12:21 PM				

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

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

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)	94.0 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	91.3 %			70 - 130	
Toluene-d8 (% Recovery)	86.4 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	92.4 %			70 - 130	
1,1-Dichloroethene (% Recovery)	99.4 %			70 - 130	
1,1-Dichloroethene (RPD)	4.8 %				0 - 20
Benzene (RPD)	4.1 %				0 - 20
Benzene (% Recovery)	96.5 %			70 - 130	
Trichloroethene (% Recovery)	94.8 %			70 - 130	
Trichloroethene (RPD)	4.9 %				0 - 20
Toluene (% Recovery)	88.2 %			70 - 130	
Toluene (RPD)	3.4 %				0 - 20
Chlorobenzene (% Recovery)	91.0 %			70 - 130	
Chlorobenzene (RPD)	3.7 %				0 - 20
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	4/18/2013 12:46 PM				

LCS	LIMS ID: 13041807-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)	96.2 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	96.0 %			70 - 130	
Toluene-d8 (% Recovery)	96.1 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	100 %			70 - 130	
Dichlorodifluoromethane (% Recovery)	91.1 %			60 - 130	
Chloromethane (% Recovery)	83.5 %			60 - 130	
Vinyl chloride (% Recovery)	90.6 %			60 - 130	
Bromomethane (% Recovery)	67.3 %			60 - 130	
Chloroethane (% Recovery)	77.3 %			60 - 130	
Trichlorofluoromethane (% Recovery)	91.0 %			60 - 130	
1,1-Dichloroethene (% Recovery)	95.1 %			60 - 130	
Acetone (% Recovery)	107 %			60 - 130	
Methylene chloride (% Recovery)	95.7 %			60 - 130	
Methyl tert-butyl ether (% Recovery)	98.9 %			60 - 130	
trans-1,2-Dichloroethene (% Recovery)	93.5 %			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

1,1-Dichloroethane (% Recovery)	95.8 %	60 - 130
Methyl ethyl ketone (% Recovery)	109 %	60 - 130
cis-1,2-Dichloroethene (% Recovery)	98.3 %	60 - 130
2,2-Dichloropropane (% Recovery)	97.0 %	60 - 130
Bromochloromethane (% Recovery)	97.0 %	60 - 130
Chloroform (% Recovery)	96.0 %	60 - 130
1,1,1-Trichloroethane (% Recovery)	95.8 %	60 - 130
1,1-Dichloropropene (% Recovery)	95.3 %	60 - 130
Carbon tetrachloride (% Recovery)	94.1 %	60 - 130
Benzene (% Recovery)	95.8 %	60 - 130
1,2-Dichloroethane (% Recovery)	95.7 %	60 - 130
Trichloroethene (% Recovery)	92.0 %	60 - 130
1,2-Dichloropropane (% Recovery)	94.9 %	60 - 130
Dibromomethane (% Recovery)	98.0 %	60 - 130
Bromodichloromethane (% Recovery)	97.9 %	60 - 130
cis-1,3-Dichloropropene (% Recovery)	96.5 %	60 - 130
Methyl isobutyl ketone (% Recovery)	102 %	60 - 130
Toluene (% Recovery)	94.8 %	60 - 130
trans-1,3-Dichloropropene (% Recovery)	95.0 %	60 - 130
1,1,2-Trichloroethane (% Recovery)	96.6 %	60 - 130
2-Hexanone (% Recovery)	105 %	60 - 130
Tetrachloroethene (% Recovery)	95.8 %	60 - 130
1,3-Dichloropropane (% Recovery)	98.5 %	60 - 130
Dibromochloromethane (% Recovery)	95.7 %	60 - 130
1,2-Dibromoethane (EDB) (% Recovery)	98.8 %	60 - 130
Chlorobenzene (% Recovery)	95.6 %	60 - 130
Ethylbenzene (% Recovery)	92.0 %	60 - 130
1,1,1,2-Tetrachloroethane (% Recovery)	95.1 %	60 - 130
m,p-Xylene (% Recovery)	97.7 %	60 - 130
o-Xylene (% Recovery)	97.1 %	60 - 130
Styrene (% Recovery)	91.2 %	60 - 130
Bromoform (% Recovery)	94.7 %	60 - 130
Isopropylbenzene (% Recovery)	93.4 %	60 - 130
1,1,2,2-Tetrachloroethane (% Recovery)	98.2 %	60 - 130
1,2,3-Trichloropropane (% Recovery)	103 %	60 - 130
n-Propylbenzene (% Recovery)	90.7 %	60 - 130
Bromobenzene (% Recovery)	96.8 %	60 - 130
1,3,5-Trimethylbenzene (% Recovery)	98.4 %	60 - 130
2-Chlorotoluene (% Recovery)	97.4 %	60 - 130
4-Chlorotoluene (% Recovery)	94.0 %	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

tert-Butylbenzene (% Recovery)	92.5 %	60 - 130
1,2,4-Trimethylbenzene (% Recovery)	96.9 %	60 - 130
sec-Butylbenzene (% Recovery)	96.1 %	60 - 130
p-Isopropyltoluene (% Recovery)	93.3 %	60 - 130
1,3-Dichlorobenzene (% Recovery)	93.9 %	60 - 130
1,4-Dichlorobenzene (% Recovery)	94.1 %	60 - 130
n-Butylbenzene (% Recovery)	92.7 %	60 - 130
1,2-Dichlorobenzene (% Recovery)	96.8 %	60 - 130
1,2-Dibromo-3-chloropropane (% Recovery)	99.2 %	60 - 130
1,2,4-Trichlorobenzene (% Recovery)	94.7 %	60 - 130
Naphthalene (% Recovery)	99.6 %	60 - 130
1,2,3-Trichlorobenzene (% Recovery)	97.4 %	60 - 130
Dilution Factor	1	
Analyzed By	Jeff Ruehr	
Analysis Date/Time	4/18/2013 8:33	

Analytical Quality Control Results Report

Batch: 13041811	ICP Metals - water (Diss.)
WS-018S	LIMS ID: 2013-1223

ICP Metals - water (Dissolved) DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum	44.2 ug/L	20	20		
Aluminum (RPD)	9.1 %				0 - 20
Antimony (RPD)	0 %				0 - 20
Antimony	<5 ug/L	1	5		
Arsenic (RPD)	0.8 %				0 - 20
Arsenic	0.79 ug/L	0.2	0.5		
Barium	19.1 ug/L	0.4	2		
Barium (RPD)	4.8 %				0 - 20
Beryllium (RPD)	66.7 %				0 - 20
Beryllium	<0.1 ug/L	0.04	0.1		
Boron	12.9 ug/L	2	5		
Boron (RPD)	6.1 %				0 - 20
Cadmium (RPD)	208 %				0 - 20
Cadmium	<0.1 ug/L	0.05	0.1		
Calcium	12.9 mg/L	0.03	0.03		
Calcium (RPD)	6.6 %				0 - 20
Chromium (RPD)	7.2 %				0 - 20
Chromium	<0.5 ug/L	0.05	0.5		
Cobalt	<0.5 ug/L	0.05	0.5		
Cobalt (RPD)	0.5 %				0 - 20
Copper (RPD)	15.6 %				0 - 20
Copper	0.70 ug/L	0.2	0.5		
Iron	166 ug/L	5	20		
Iron (RPD)	6.2 %				0 - 20
Lead (RPD)	1.0 %				0 - 20
Lead	<0.3 ug/L	0.02	0.3		
Magnesium	1.68 mg/L	0.01	0.02		
Magnesium (RPD)	0.6 %				0 - 20
Manganese (RPD)	1.1 %				0 - 20
Manganese	280 ug/L	0.07	0.3		
Nickel	0.98 ug/L	0.15	0.5		
Nickel (RPD)	3.4 %				0 - 20
Potassium (RPD)	0.1 %				0 - 20

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

Potassium	1.87 mg/L	0.01	0.02	
Selenium (RPD)	3.3 %			0 - 20
Selenium	<1 ug/L	0.2	1	
Silicon Dioxide	2.13 mg/L	0.01	0.05	
Silicon Dioxide (RPD)	3.1 %			0 - 20
Silver (RPD)	0 %			0 - 20
Silver	<0.5 ug/L	0.02	0.5	
Sodium	4.84 mg/L	0.01	0.02	
Sodium (RPD)	1.1 %			0 - 20
Thallium (RPD)	0 %			0 - 20
Thallium	<0.5 ug/L	0	0.5	
Vanadium (RPD)	28.2 %			0 - 20
Vanadium	<0.5 ug/L	0.3	0.5	
Zinc	20.6 ug/L	0.3	1	
Zinc (RPD)	71.9 %			0 - 20
Hardness	39 mg/L	1	1	
Hardness (RPD)	6 %			0 - 20
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 18 2013 10:59AM			

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

ICP Metals - water (Dissolved) MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	92.0 %			70 - 130	
Antimony (% Recovery)	95.1 %			70 - 130	
Arsenic (% Recovery)	100 %			70 - 130	
Barium (% Recovery)	93.1 %			70 - 130	
Beryllium (% Recovery)	100 %			70 - 130	
Boron (% Recovery)	81.6 %			70 - 130	
Cadmium (% Recovery)	97.9 %			70 - 130	
Calcium (% Recovery)	5.8 %			70 - 130	
Chromium (% Recovery)	94.7 %			70 - 130	
Cobalt (% Recovery)	95.0 %			70 - 130	
Copper (% Recovery)	97.0 %			70 - 130	
Iron (% Recovery)	93.1 %			70 - 130	
Lead (% Recovery)	94.2 %			70 - 130	
Magnesium (% Recovery)	94.9 %			70 - 130	
Manganese (% Recovery)	77 %			70 - 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

Nickel (% Recovery)	95 %	70 - 130
Potassium (% Recovery)	90.5 %	70 - 130
Selenium (% Recovery)	106 %	70 - 130
Silver (% Recovery)	87.2 %	70 - 130
Sodium (% Recovery)	98.9 %	70 - 130
Thallium (% Recovery)	93.7 %	70 - 130
Vanadium (% Recovery)	95.5 %	70 - 130
Zinc (% Recovery)	91.1 %	70 - 130
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	Apr 18 2013 11:05AM	

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

ICP Metals - water (Dissolved) MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	91.9 %			70 - 130	
Aluminum (RPD)	0.1 %				0 - 20
Antimony (% Recovery)	95.3 %			70 - 130	
Antimony (RPD)	0.2 %				0 - 20
Arsenic (% Recovery)	99.1 %			70 - 130	
Arsenic (RPD)	1.3 %				0 - 20
Barium (% Recovery)	93.6 %			70 - 130	
Barium (RPD)	0.5 %				0 - 20
Beryllium (% Recovery)	99.8 %			70 - 130	
Beryllium (RPD)	0.6 %				0 - 20
Boron (% Recovery)	82.2 %			70 - 130	
Boron (RPD)	0.6 %				0 - 20
Cadmium (% Recovery)	98.4 %			70 - 130	
Cadmium (RPD)	0.5 %				0 - 20
Calcium (% Recovery)	6.8 %			70 - 130	
Calcium (RPD)	0.8 %				0 - 20
Chromium (% Recovery)	95.3 %			70 - 130	
Chromium (RPD)	0.6 %				0 - 20
Cobalt (% Recovery)	95.2 %			70 - 130	
Cobalt (RPD)	0.2 %				0 - 20
Copper (% Recovery)	97.1 %			70 - 130	
Copper (RPD)	0.1 %				0 - 20
Iron (% Recovery)	93.3 %			70 - 130	
Iron (RPD)	0.1 %				0 - 20

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

Lead (% Recovery)	94.0 %	70 - 130
Lead (RPD)	0.3 %	0 - 20
Magnesium (% Recovery)	95.6 %	70 - 130
Magnesium (RPD)	0.6 %	0 - 20
Manganese (% Recovery)	80 %	70 - 130
Manganese (RPD)	0.3 %	0 - 20
Nickel (% Recovery)	95 %	70 - 130
Nickel (RPD)	0 %	0 - 20
Potassium (% Recovery)	91.6 %	70 - 130
Potassium (RPD)	1.0 %	0 - 20
Selenium (% Recovery)	106 %	70 - 130
Selenium (RPD)	0.3 %	0 - 20
Silver (% Recovery)	87.0 %	70 - 130
Silver (RPD)	0.2 %	0 - 20
Sodium (% Recovery)	99.5 %	70 - 130
Sodium (RPD)	0.4 %	0 - 20
Thallium (% Recovery)	93.0 %	70 - 130
Thallium (RPD)	0.7 %	0 - 20
Vanadium (% Recovery)	95.8 %	70 - 130
Vanadium (RPD)	0.3 %	0 - 20
Zinc (% Recovery)	94.0 %	70 - 130
Zinc (RPD)	2.5 %	0 - 20
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	Apr 18 2013 11:12AM	

Analytical Quality Control Results Report

Batch: 13041810	Oil and Grease - water
WS-018S	LIMS ID: 2013-1223

Oil and Grease - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease	<2.5 mg/L	2.5	2.5		
Oil and Grease (RPD)	0 %				0 - 20
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

Oil and Grease - water MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease (% Recovery)	82.5 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

Oil and Grease - water MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease (% Recovery)	83.5 %			70 - 130	
Oil and Grease (RPD)	1.2 %				0 - 20
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

MB	LIMS ID: 13041810-MB-01
-----------	--------------------------------

Oil and Grease - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease	<2.5 mg/L	2.5	2.5		
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

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

LCS	LIMS ID: 13041810-LCS-01
------------	---------------------------------

Oil and Grease - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease (% Recovery)	88.0 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

MB	LIMS ID: 13041810-MB-02
-----------	--------------------------------

Oil and Grease - water MB

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease	<2.5 mg/L	2.5	2.5		
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

LCS	LIMS ID: 13041810-LCS-02
------------	---------------------------------

Oil and Grease - water LCS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Oil and Grease (% Recovery)	91.3 %			70 - 130	
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	04/18/2013 1500				

Analytical Quality Control Results Report

Batch: 13041813	ICP Metals - water (total)
WS-018S	LIMS ID: 2013-1223

ICP Metals - water (Total) DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum	254 ug/L	20	20		
Aluminum (RPD)	3.4 %				0 - 20
Antimony (RPD)	0 %				0 - 20
Antimony	<10 ug/L	5	10		
Arsenic	1.03 ug/L	0.5	1		
Arsenic (RPD)	4.5 %				0 - 20
Barium (RPD)	1.5 %				0 - 20
Barium	23.4 ug/L	2	10		
Beryllium (RPD)	4.9 %				0 - 20
Beryllium	<0.5 ug/L	0.1	0.5		
Boron	<25 ug/L	5	25		
Boron (RPD)	2.9 %				0 - 20
Cadmium (RPD)	10.5 %				0 - 20
Cadmium	<1 ug/L	0.3	1		
Calcium	7.51 mg/L	0.04	0.04		
Calcium (RPD)	35.8 %				0 - 20
Chromium (RPD)	9.2 %				0 - 20
Chromium	<1 ug/L	0.3	1		
Cobalt	<1 ug/L	0.5	1		
Cobalt (RPD)	8.0 %				0 - 20
Copper (RPD)	0.5 %				0 - 20
Copper	1.20 ug/L	0.5	1		
Iron	692 ug/L	10	20		
Iron (RPD)	0.7 %				0 - 20
Lead (RPD)	0 %				0 - 20
Lead	<1 ug/L	0.1	1		
Magnesium	1.80 mg/L	0.1	0.1		
Magnesium (RPD)	1.5 %				0 - 20
Manganese	380 ug/L	0.2	1		
Manganese (RPD)	0.9 %				0 - 20
Nickel (RPD)	9.0 %				0 - 20
Nickel	<2.5 ug/L	0.5	2.5		
Potassium	2.02 mg/L	0.05	1		

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

Potassium (RPD)	1.3 %			0 - 20
Selenium (RPD)	8.1 %			0 - 20
Selenium	<2 ug/L	0.5	2	
Silver	<5 ug/L	1	5	
Silver (RPD)	0 %			0 - 20
Sodium	4.99 mg/L	0.02	0.04	
Sodium (RPD)	0.9 %			0 - 20
Thallium	<2.5 ug/L	0.05	2.5	
Thallium (RPD)	0 %			0 - 20
Vanadium (RPD)	10.0 %			0 - 20
Vanadium	<2.5 ug/L	1	2.5	
Zinc (RPD)	20.7 %			0 - 20
Zinc	5.09 ug/L	2	3	
Dilution Factor	1			
Analyzed By	Robert Graddy			
Analysis Date/Time	Apr 18 2013 1:00PM			

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

ICP Metals - water (Total) MS

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	129 %			70 - 130	
Antimony (% Recovery)	85.4 %			70 - 130	
Arsenic (% Recovery)	105 %			70 - 130	
Barium (% Recovery)	95.9 %			70 - 130	
Beryllium (% Recovery)	103 %			70 - 130	
Boron (% Recovery)	82.2 %			70 - 130	
Cadmium (% Recovery)	102 %			70 - 130	
Calcium (% Recovery)	24.9 %			70 - 130	
Chromium (% Recovery)	95.8 %			70 - 130	
Cobalt (% Recovery)	96.6 %			70 - 130	
Copper (% Recovery)	98.6 %			70 - 130	
Iron (% Recovery)	146 %			70 - 130	
Lead (% Recovery)	96.7 %			70 - 130	
Magnesium (% Recovery)	96.8 %			70 - 130	
Manganese (% Recovery)	64 %			70 - 130	
Nickel (% Recovery)	97 %			70 - 130	
Potassium (% Recovery)	95.0 %			70 - 130	
Selenium (% Recovery)	110 %			70 - 130	
Silver (% Recovery)	90.9 %			70 - 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

Sodium (% Recovery)	101 %	70 - 130
Thallium (% Recovery)	97.0 %	70 - 130
Vanadium (% Recovery)	96.3 %	70 - 130
Zinc (% Recovery)	109 %	70 - 130
Dilution Factor	1	
Analyzed By	Robert Graddy	
Analysis Date/Time	Apr 18 2013 1:06PM	

WS-018S	LIMS ID: 2013-1223
----------------	---------------------------

ICP Metals - water (Total) MSD

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Aluminum (% Recovery)	123 %			70 - 130	
Aluminum (RPD)	2.9 %				0 - 20
Antimony (% Recovery)	85.6 %			70 - 130	
Antimony (RPD)	0.2 %				0 - 20
Arsenic (% Recovery)	102 %			70 - 130	
Arsenic (RPD)	2.9 %				0 - 20
Barium (% Recovery)	96.2 %			70 - 130	
Barium (RPD)	0.3 %				0 - 20
Beryllium (% Recovery)	104 %			70 - 130	
Beryllium (RPD)	0.9 %				0 - 20
Boron (% Recovery)	83.0 %			70 - 130	
Boron (RPD)	0.9 %				0 - 20
Cadmium (% Recovery)	102 %			70 - 130	
Cadmium (RPD)	0.5 %				0 - 20
Calcium (% Recovery)	25.0 %			70 - 130	
Calcium (RPD)	0.1 %				0 - 20
Chromium (% Recovery)	95.7 %			70 - 130	
Chromium (RPD)	0.1 %				0 - 20
Cobalt (% Recovery)	97.5 %			70 - 130	
Cobalt (RPD)	0.9 %				0 - 20
Copper (% Recovery)	98.5 %			70 - 130	
Copper (RPD)	0.1 %				0 - 20
Iron (% Recovery)	139 %			70 - 130	
Iron (RPD)	1.4 %				0 - 20
Lead (% Recovery)	97.8 %			70 - 130	
Lead (RPD)	1.1 %				0 - 20
Magnesium (% Recovery)	98.2 %			70 - 130	
Magnesium (RPD)	1.2 %				0 - 20

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

Manganese (% Recovery)	67 %	70 - 130
Manganese (RPD)	0.2 %	0 - 20
Nickel (% Recovery)	97 %	70 - 130
Nickel (RPD)	0.3 %	0 - 20
Potassium (% Recovery)	95.2 %	70 - 130
Potassium (RPD)	0.2 %	0 - 20
Selenium (% Recovery)	109 %	70 - 130
Selenium (RPD)	0.9 %	0 - 20
Silver (% Recovery)	91.7 %	70 - 130
Silver (RPD)	0.9 %	0 - 20
Sodium (% Recovery)	103 %	70 - 130
Sodium (RPD)	1.1 %	0 - 20
Thallium (% Recovery)	97.9 %	70 - 130
Thallium (RPD)	0.9 %	0 - 20
Vanadium (% Recovery)	97.2 %	70 - 130
Vanadium (RPD)	1.0 %	0 - 20
Zinc (% Recovery)	109 %	70 - 130
Zinc (RPD)	0.1 %	0 - 20
Dilution Factor	1	
Analysis Date/Time	Apr 18 2013 1:13PM	
Analyzed By	Robert Graddy	

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

Analytical Quality Control Results Report

Batch: 13041802	Turbidity - water
WS-018S	LIMS ID: 2013-1223

Turbidity - water DUP

Run: 1

Parameter	Result	DL	RL	Accuracy Control	Precision Control
Turbidity	20.7 NTU	0.02	0.02		
Turbidity (RPD)	0.6 %				0 - 20
Dilution Factor	1				
Analyzed By	Penny Semberski				
Analysis Date/Time	4/18/2013 10:26				