



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

**Client Report For:** Exxon Oil Spill (Groundwater) 2013 1702-1715  
**Attention:**  
**Client Address:**

,

**Report Date:** May 24, 2013  
**LAB ID:** AR13MAY16-02  
**Comment:**

Approved By: \_\_\_\_\_

Date: May 24, 2013

**Client:** Special Samples

**Client Sample ID:** TW-40-01

**Lab ID:** 2013-1702

**Collection Date:** 5/15/2013 10:30:00 AM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	104	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	98.4	70-130			%
Toluene-d8 (% Recovery)	95.7	70-130			%
4-Bromofluorobenzene (% Recovery)	111	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	0.591	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	5/16/2013 10:43 AM			

**Client:** Special Samples

**Client Sample ID:** TW-44-02

**Lab ID:** 2013-1703

**Collection Date:** 5/15/2013 10:50:00 AM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	103	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	95.4	70-130			%
Toluene-d8 (% Recovery)	93.5	70-130			%
4-Bromofluorobenzene (% Recovery)	101	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	1.43	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	0.595	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	5/16/2013 11:08 AM			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-44-01 Deep
<b>Lab ID:</b> 2013-1704	<b>Collection Date:</b> 5/15/2013 11:10:00 AM
<b>Matrix:</b> Groundwater	

**Analyses**

<i>Volatile Organics by GCMS</i>	<i>EPA 8260C</i>	<i>Batch: 13052304 Run: 1</i>		
	<u>Result</u>	<u>Reporting Limit</u>	<u>MDL</u>	<u>Qual</u>
				<u>Unit</u>
Dibromofluoromethane (% Recovery)	105	70-130		%
1,2-Dichloroethane-d4 (% Recovery)	98.0	70-130		%
Toluene-d8 (% Recovery)	94.1	70-130		%
4-Bromofluorobenzene (% Recovery)	111	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	5/16/2013 11:33 AM			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-36-01 Deep
<b>Lab ID:</b> 2013-1705	<b>Collection Date:</b> 5/15/2013 11:40:00 AM
<b>Matrix:</b> Groundwater	

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	101	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	93.9	70-130			%
Toluene-d8 (% Recovery)	93.5	70-130			%
4-Bromofluorobenzene (% Recovery)	98.6	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	5/16/2013 11:58 AM			

**Client:** Special Samples

**Client Sample ID:** TW-44-03

**Lab ID:** 2013-1706

**Collection Date:** 5/15/2013 1:00:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	98.0	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	92.2	70-130			%
Toluene-d8 (% Recovery)	89.7	70-130			%
4-Bromofluorobenzene (% Recovery)	101	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	0.583	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	5/16/2013 12:24 PM			

**Client:** Special Samples

**Client Sample ID:** TW-36-03 Deep

**Lab ID:** 2013-1707

**Collection Date:** 5/15/2013 1:15:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	103	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	95.2	70-130			%
Toluene-d8 (% Recovery)	92.6	70-130			%
4-Bromofluorobenzene (% Recovery)	102	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	5/16/2013 12:49 PM			

**Client:** Special Samples

**Client Sample ID:** TW-36-02

**Lab ID:** 2013-1708

**Collection Date:** 5/15/2013 12:30:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
<i>Dibromofluoromethane (% Recovery)</i>	97.6	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	92.5	70-130			%
<i>Toluene-d8 (% Recovery)</i>	91.6	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	105	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	0.994	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	0.759	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	1.02	0.51	0.51	ug/L
1,1,1,2-Tetrachloroethane	<0.57	0.57	0.57	ug/L
m,p-Xylene	7.07	1.2	1.2	ug/L
o-Xylene	3.66	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	0.565	0.49	0.49	ug/L
Bromobenzene	<0.5	0.5	0.5	ug/L
1,3,5-Trimethylbenzene	1.30	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	1.04	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	5/16/2013 1:14 PM			

**Client:** Special Samples

**Client Sample ID:** TW-36-04 Deep

**Lab ID:** 2013-1709

**Collection Date:** 5/15/2013 1:40:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
<i>Dibromofluoromethane (% Recovery)</i>	96.2	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	90.1	70-130			%
<i>Toluene-d8 (% Recovery)</i>	90.1	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	95.5	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	5/16/2013 1:39 PM			

**Client:** Special Samples

**Client Sample ID:** TW-32-01

**Lab ID:** 2013-1710

**Collection Date:** 5/15/2013 2:00:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
<i>Dibromofluoromethane (% Recovery)</i>	99.0	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	92.9	70-130			%
<i>Toluene-d8 (% Recovery)</i>	92.7	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	96.8	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	0.594	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	0.524	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	5/16/2013 4:10 PM			

**Client:** Special Samples

**Client Sample ID:** TW-24-03

**Lab ID:** 2013-1711

**Collection Date:** 5/15/2013 2:30:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	100	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	95.3	70-130			%
Toluene-d8 (% Recovery)	93.0	70-130			%
4-Bromofluorobenzene (% Recovery)	101	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	5/16/2013 4:36 PM			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-24-03 Deep
<b>Lab ID:</b> 2013-1712	<b>Collection Date:</b> 5/15/2013 2:45:00 PM
	<b>Matrix:</b> Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	102	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	95.5	70-130			%
Toluene-d8 (% Recovery)	93.3	70-130			%
4-Bromofluorobenzene (% Recovery)	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	5/16/2013 5:01 PM			

**Client:** Special Samples

**Client Sample ID:** TW-24-02

**Lab ID:** 2013-1713

**Collection Date:** 5/15/2013 3:00:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
<i>Dibromofluoromethane (% Recovery)</i>	104	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	97.4	70-130			%
<i>Toluene-d8 (% Recovery)</i>	92.6	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	100	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	0.586	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	5/16/2013 5:26 PM			

**Client:** Special Samples

**Client Sample ID:** TW-24-01

**Lab ID:** 2013-1714

**Collection Date:** 5/15/2013 3:15:00 PM

**Matrix:** Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
<i>Dibromofluoromethane (% Recovery)</i>	98.1	70-130			%
<i>1,2-Dichloroethane-d4 (% Recovery)</i>	95.2	70-130			%
<i>Toluene-d8 (% Recovery)</i>	92.7	70-130			%
<i>4-Bromofluorobenzene (% Recovery)</i>	103	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	11.2	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	1.75	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	5/16/2013 5:51 PM			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-32-02
<b>Lab ID:</b> 2013-1715	<b>Collection Date:</b> 5/15/2013 3:30:00 PM
	<b>Matrix:</b> Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	102	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	96.5	70-130			%
Toluene-d8 (% Recovery)	94.6	70-130			%
4-Bromofluorobenzene (% Recovery)	99.7	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	0.589	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	5/16/2013 6:16 PM			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> Volatiles Trip Blank
<b>Lab ID:</b> 2013-1716	<b>Collection Date:</b> 5/15/2013 10:30:00 AM
	<b>Matrix:</b> Groundwater

**Analyses**

**Volatile Organics by GCMS**

**EPA 8260C**

**Batch: 13052304 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Dibromofluoromethane (% Recovery)	103	70-130			%
1,2-Dichloroethane-d4 (% Recovery)	96.4	70-130			%
Toluene-d8 (% Recovery)	94.1	70-130			%
4-Bromofluorobenzene (% Recovery)	103	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	5/16/2013 10:18 AM			

**Client:** Special Samples

**Client Sample ID:** TW-36-03 Deep

**Lab ID:** 2013-1707

**Collection Date:** 5/15/2013 1:15:00 PM

**Matrix:** Groundwater

**Analyses**

**Semi-Volatiles by GC/MS**

**EPA 3510C/EPA 8270D**

**Batch: 13052001 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
2-Fluorophenol (% Recovery)	23.7	40-110			%
Nitrobenzene-d5 (% Recovery)	74.8	50-110			%
2-Fluorobiphenyl (% Recovery)	62.5	50-110			%
2,4,6-Tribromophenol (% Recovery)	39.5	40-110			%
Terphenyl-d14 (% Recovery)	69.9	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
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	0.902	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

Arkansas Department of Environmental Quality  
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Laboratory Contact: Jeff Ruehr  
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501-682-0955

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	0.382	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	5/16/2013 5:18 PM			
Prep By	Ed Harris			
Prep Date/Time	5/16/2013 08:00			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-36-04 Deep
<b>Lab ID:</b> 2013-1709	<b>Collection Date:</b> 5/15/2013 1:40:00 PM
<b>Matrix:</b> Groundwater	

**Analyses**

**Semi-Volatiles by GC/MS**

**EPA 3510C/EPA 8270D**

**Batch: 13052001 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
2-Fluorophenol (% Recovery)	28.1	40-110			%
Nitrobenzene-d5 (% Recovery)	51.9	50-110			%
2-Fluorobiphenyl (% Recovery)	51.7	50-110			%
2,4,6-Tribromophenol (% Recovery)	68.4	40-110			%
Terphenyl-d14 (% Recovery)	90.7	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
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	0.726	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

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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	1.66	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	5/16/2013 4:49 PM			
Prep By	Ed Harris			
Prep Date/Time	5/16/2013 08:00			

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-24-03 Deep
<b>Lab ID:</b> 2013-1712	<b>Collection Date:</b> 5/15/2013 2:45:00 PM
	<b>Matrix:</b> Groundwater

**Analyses**

**Semi-Volatiles by GC/MS**

**EPA 3510C/EPA 8270D**

**Batch: 13052001 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
2-Fluorophenol (% Recovery)	20.5	40-110			%
Nitrobenzene-d5 (% Recovery)	53.2	50-110			%
2-Fluorobiphenyl (% Recovery)	48.8	50-110			%
2,4,6-Tribromophenol (% Recovery)	65.4	40-110			%
Terphenyl-d14 (% Recovery)	96.2	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
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
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	0.473	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

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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	1.04	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	5/16/2013 4:20 PM			
Prep By	Ed Harris			
Prep Date/Time	5/16/2013 08:00			



**Client:** Special Samples

**Client Sample ID:** TW-44-02

**Lab ID:** 2013-1703

**Collection Date:** 5/15/2013 10:50:00 AM

**Matrix:** Groundwater

**Analyses**

***Dissolved Metals by EPA 200.8***

***EPA 200.8***

**Batch: 13052401 Run: 1**

	<b><u>Result</u></b>	<b><u>Reporting Limit</u></b>	<b><u>MDL</u></b>	<b><u>Qual</u></b>	<b><u>Unit</u></b>
Aluminum	44.9	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	43.4	2	0.4		ug/L
Beryllium	0.22	0.1	0.04		ug/L
Boron	22.2	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	3.02	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	25.6	0.5	0.05		ug/L
Copper	2.22	0.5	0.2		ug/L
Iron	86.3	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.71	0.02	0.01		mg/L
Manganese	239	0.3	0.07		ug/L
Nickel	16.9	0.5	0.15		ug/L
Potassium	0.499	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	20.6	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	14.8	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	29.5	1	0.3		ug/L
Hardness	14.6	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 24 2013 8:44AM				

**Client:** Special Samples

**Client Sample ID:** TW-44-01 Deep

**Lab ID:** 2013-1704

**Collection Date:** 5/15/2013 11:10:00 AM

**Matrix:** Groundwater

**Analyses**

**Dissolved Metals by EPA 200.8**

**EPA 200.8**

**Batch: 13052401 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	<400	400	20		ug/L
Antimony	<100	100	1.0		ug/L
Arsenic	<10	10	0.2		ug/L
Barium	142	40	0.4		ug/L
Beryllium	<2	2	0.04		ug/L
Boron	<100	100	2.0		ug/L
Cadmium	<2	2	0.05		ug/L
Calcium	306	0.6	0.03		mg/L
Chromium	<10	10	0.05		ug/L
Cobalt	23.7	10	0.05		ug/L
Copper	<10	10	0.2		ug/L
Iron	<400	400	5.0		ug/L
Lead	<6	6	0.02		ug/L
Magnesium	663	0.4	0.01		mg/L
Manganese	2520	6	0.07		ug/L
Nickel	60.0	10	0.15		ug/L
Potassium	1.52	0.4	0.01		mg/L
Selenium	<20	20	0.2		ug/L
Silicon Dioxide	27.2	1	0.01		mg/L
Silver	<10	10	0.02		ug/L
Sodium	1180	0.4	0.01		mg/L
Thallium	<10	10	0.005		ug/L
Vanadium	<10	10	0.3		ug/L
Zinc	<20	20	0.3		ug/L
Hardness	3500	20	1.0		mg/L
Dilution Factor	20				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 23 2013 9:12PM				

**Total Metals by EPA 200.8**

**EPA 200.8**

**Batch: 13052402 Run: 1**

**Result Reporting MDL Qual Unit**

		<b>Limit</b>		
Aluminum	5310	4000	20	ug/L
Antimony	<2000	2000	5	ug/L
Arsenic	<200	200	0.5	ug/L
Barium	<2000	2000	2.0	ug/L
Beryllium	<100	100	0.1	ug/L
Boron	<5000	5000	5.0	ug/L
Cadmium	<200	200	0.3	ug/L
Calcium	331	8	0.04	mg/L
Chromium	<200	200	0.3	ug/L
Cobalt	<200	200	0.5	ug/L
Copper	<200	200	0.5	ug/L
Iron	<4000	4000	10.0	ug/L
Lead	<200	200	0.1	ug/L
Magnesium	618	20	0.1	mg/L
Manganese	1970	200	0.2	ug/L
Nickel	<500	500	0.5	ug/L
Potassium	<200	200	0.05	mg/L
Selenium	<400	400	0.5	ug/L
Silver	<1000	1000	1.0	ug/L
Sodium	1050	8	0.02	mg/L
Thallium	<500	500	0.05	ug/L
Vanadium	<500	500	1.0	ug/L
Zinc	<600	600	2.0	ug/L
Dilution Factor	200			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 24 2013 5:09AM			
Prep By				
Prep Date/Time				

**Client:** Special Samples      **Client Sample ID:** TW-36-01 Deep  
**Lab ID:** 2013-1705      **Collection Date:** 5/15/2013 11:40:00 AM  
**Matrix:** Groundwater

**Analyses**

<i>Dissolved Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052401 Run: 1</i>			
	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	<400	400	20		ug/L
Antimony	<100	100	1.0		ug/L
Arsenic	<10	10	0.2		ug/L
Barium	150	40	0.4		ug/L
Beryllium	<2	2	0.04		ug/L
Boron	<100	100	2.0		ug/L
Cadmium	<2	2	0.05		ug/L
Calcium	333	0.6	0.03		mg/L
Chromium	<10	10	0.05		ug/L
Cobalt	<10	10	0.05		ug/L
Copper	<10	10	0.2		ug/L
Iron	<400	400	5.0		ug/L
Lead	<6	6	0.02		ug/L
Magnesium	657	0.4	0.01		mg/L
Manganese	758	6	0.07		ug/L
Nickel	<10	10	0.15		ug/L
Potassium	1.51	0.4	0.01		mg/L
Selenium	<20	20	0.2		ug/L
Silicon Dioxide	24.3	1	0.01		mg/L
Silver	<10	10	0.02		ug/L
Sodium	1300	0.4	0.01		mg/L
Thallium	<10	10	0.005		ug/L
Vanadium	<10	10	0.3		ug/L
Zinc	<20	20	0.3		ug/L
Hardness	3540	20	1.0		mg/L
Dilution Factor	20				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 23 2013 9:18PM				

<i>Total Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052402 Run: 1</i>			
	<b>Result</b>	<b>Reporting</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>

		<b>Limit</b>		
Aluminum	<4000	4000	20	ug/L
Antimony	<2000	2000	5	ug/L
Arsenic	<200	200	0.5	ug/L
Barium	<2000	2000	2.0	ug/L
Beryllium	<100	100	0.1	ug/L
Boron	<5000	5000	5.0	ug/L
Cadmium	<200	200	0.3	ug/L
Calcium	383	8	0.04	mg/L
Chromium	<200	200	0.3	ug/L
Cobalt	<200	200	0.5	ug/L
Copper	<200	200	0.5	ug/L
Iron	<4000	4000	10.0	ug/L
Lead	<200	200	0.1	ug/L
Magnesium	588	20	0.1	mg/L
Manganese	515	200	0.2	ug/L
Nickel	<500	500	0.5	ug/L
Potassium	<200	200	0.05	mg/L
Selenium	<400	400	0.5	ug/L
Silver	<1000	1000	1.0	ug/L
Sodium	1120	8	0.02	mg/L
Thallium	<500	500	0.05	ug/L
Vanadium	<500	500	1.0	ug/L
Zinc	<600	600	2.0	ug/L
Dilution Factor	200			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 24 2013 5:15AM			
Prep By				
Prep Date/Time				

**Client:** Special Samples

**Client Sample ID:** TW-44-03

**Lab ID:** 2013-1706

**Collection Date:** 5/15/2013 1:00:00 PM

**Matrix:** Groundwater

**Analyses**

***Dissolved Metals by EPA 200.8***

***EPA 200.8***

***Batch: 13052401 Run: 1***

	<b><u>Result</u></b>	<b><u>Reporting Limit</u></b>	<b><u>MDL</u></b>	<b><u>Qual</u></b>	<b><u>Unit</u></b>
Aluminum	28.9	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	39.0	2	0.4		ug/L
Beryllium	0.16	0.1	0.04		ug/L
Boron	12.6	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	2.02	0.03	0.03		mg/L
Chromium	<0.5	0.5	0.05		ug/L
Cobalt	10.0	0.5	0.05		ug/L
Copper	0.58	0.5	0.2		ug/L
Iron	<20	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	1.39	0.02	0.01		mg/L
Manganese	346	0.3	0.07		ug/L
Nickel	16.6	0.5	0.15		ug/L
Potassium	0.226	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	18.6	0.05	0.01		mg/L
Silver	<0.5	0.5	0.02		ug/L
Sodium	12.0	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	34.7	1	0.3		ug/L
Hardness	10.8	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 24 2013 8:51AM				

<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-36-03 Deep
<b>Lab ID:</b> 2013-1707	<b>Collection Date:</b> 5/15/2013 1:15:00 PM
<b>Matrix:</b> Groundwater	

**Analyses**

<i>Dissolved Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052401 Run: 1</i>			
	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	<400	400	20		ug/L
Antimony	<100	100	1.0		ug/L
Arsenic	<10	10	0.2		ug/L
Barium	138	40	0.4		ug/L
Beryllium	<2	2	0.04		ug/L
Boron	<100	100	2.0		ug/L
Cadmium	<2	2	0.05		ug/L
Calcium	299	0.6	0.03		mg/L
Chromium	<10	10	0.05		ug/L
Cobalt	<10	10	0.05		ug/L
Copper	<10	10	0.2		ug/L
Iron	<400	400	5.0		ug/L
Lead	<6	6	0.02		ug/L
Magnesium	451	0.4	0.01		mg/L
Manganese	1150	6	0.07		ug/L
Nickel	<10	10	0.15		ug/L
Potassium	1.42	0.4	0.01		mg/L
Selenium	<20	20	0.2		ug/L
Silicon Dioxide	26.6	1	0.01		mg/L
Silver	<10	10	0.02		ug/L
Sodium	1030	0.4	0.01		mg/L
Thallium	<10	10	0.005		ug/L
Vanadium	<10	10	0.3		ug/L
Zinc	<20	20	0.3		ug/L
Hardness	2600	20	1.0		mg/L
Dilution Factor	20				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 23 2013 9:31PM				

<i>Total Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052402 Run: 1</i>			
	<b>Result</b>	<b>Reporting</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>

		<b>Limit</b>		
Aluminum	21400	4000	20	ug/L
Antimony	<2000	2000	5	ug/L
Arsenic	<200	200	0.5	ug/L
Barium	<2000	2000	2.0	ug/L
Beryllium	<100	100	0.1	ug/L
Boron	<5000	5000	5.0	ug/L
Cadmium	<200	200	0.3	ug/L
Calcium	112	8	0.04	mg/L
Chromium	<200	200	0.3	ug/L
Cobalt	<200	200	0.5	ug/L
Copper	<200	200	0.5	ug/L
Iron	14500	4000	10.0	ug/L
Lead	<200	200	0.1	ug/L
Magnesium	118	20	0.1	mg/L
Manganese	2700	200	0.2	ug/L
Nickel	<500	500	0.5	ug/L
Potassium	<200	200	0.05	mg/L
Selenium	<400	400	0.5	ug/L
Silver	<1000	1000	1.0	ug/L
Sodium	362	8	0.02	mg/L
Thallium	<500	500	0.05	ug/L
Vanadium	<500	500	1.0	ug/L
Zinc	<600	600	2.0	ug/L
Dilution Factor	200			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 24 2013 5:22AM			
Prep By				
Prep Date/Time				



<b>Client:</b> Special Samples	<b>Client Sample ID:</b> TW-36-02
<b>Lab ID:</b> 2013-1708	<b>Collection Date:</b> 5/15/2013 12:30:00 PM
<b>Matrix:</b> Groundwater	

**Analyses**

<i>Dissolved Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052401 Run: 1</i>			
	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	44.5	20	20		ug/L
Antimony	<5	5	1.0		ug/L
Arsenic	<0.5	0.5	0.2		ug/L
Barium	57.2	2	0.4		ug/L
Beryllium	0.13	0.1	0.04		ug/L
Boron	23.6	5	2.0		ug/L
Cadmium	<0.1	0.1	0.05		ug/L
Calcium	4.63	0.03	0.03		mg/L
Chromium	0.61	0.5	0.05		ug/L
Cobalt	31.6	0.5	0.05		ug/L
Copper	0.80	0.5	0.2		ug/L
Iron	1150	20	5.0		ug/L
Lead	<0.3	0.3	0.02		ug/L
Magnesium	2.38	0.02	0.01		mg/L
Manganese	1210	0.3	0.07		ug/L
Nickel	27.2	0.5	0.15		ug/L
Potassium	1.44	0.02	0.01		mg/L
Selenium	<1	1	0.2		ug/L
Silicon Dioxide	17.6	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	40.4	1	0.3		ug/L
Hardness	21.4	1	1.0		mg/L
Dilution Factor	1				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 24 2013 8:57AM				

<i>Total Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052402 Run: 1</i>			
	<b>Result</b>	<b>Reporting</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>

		<b>Limit</b>		
Aluminum	7700	4000	20	ug/L
Antimony	<2000	2000	5	ug/L
Arsenic	<200	200	0.5	ug/L
Barium	<2000	2000	2.0	ug/L
Beryllium	<100	100	0.1	ug/L
Boron	<5000	5000	5.0	ug/L
Cadmium	<200	200	0.3	ug/L
Calcium	<8	8	0.04	mg/L
Chromium	<200	200	0.3	ug/L
Cobalt	<200	200	0.5	ug/L
Copper	<200	200	0.5	ug/L
Iron	18800	4000	10.0	ug/L
Lead	<200	200	0.1	ug/L
Magnesium	<20	20	0.1	mg/L
Manganese	2360	200	0.2	ug/L
Nickel	<500	500	0.5	ug/L
Potassium	<200	200	0.05	mg/L
Selenium	<400	400	0.5	ug/L
Silver	<1000	1000	1.0	ug/L
Sodium	55.2	8	0.02	mg/L
Thallium	<500	500	0.05	ug/L
Vanadium	<500	500	1.0	ug/L
Zinc	<600	600	2.0	ug/L
Dilution Factor	200			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 24 2013 5:28AM			
Prep By				
Prep Date/Time				

**Client:** Special Samples      **Client Sample ID:** TW-36-04 Deep  
**Lab ID:** 2013-1709      **Collection Date:** 5/15/2013 1:40:00 PM  
**Matrix:** Groundwater

**Analyses**

<i>Dissolved Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052401 Run: 1</i>			
	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	<400	400	20		ug/L
Antimony	<100	100	1.0		ug/L
Arsenic	<10	10	0.2		ug/L
Barium	163	40	0.4		ug/L
Beryllium	<2	2	0.04		ug/L
Boron	<100	100	2.0		ug/L
Cadmium	<2	2	0.05		ug/L
Calcium	127	0.6	0.03		mg/L
Chromium	<10	10	0.05		ug/L
Cobalt	48.1	10	0.05		ug/L
Copper	<10	10	0.2		ug/L
Iron	<400	400	5.0		ug/L
Lead	<6	6	0.02		ug/L
Magnesium	203	0.4	0.01		mg/L
Manganese	2600	6	0.07		ug/L
Nickel	23.4	10	0.15		ug/L
Potassium	1.48	0.4	0.01		mg/L
Selenium	<20	20	0.2		ug/L
Silicon Dioxide	32.3	1	0.01		mg/L
Silver	<10	10	0.02		ug/L
Sodium	827	0.4	0.01		mg/L
Thallium	<10	10	0.005		ug/L
Vanadium	<10	10	0.3		ug/L
Zinc	<20	20	0.3		ug/L
Hardness	1150	20	1.0		mg/L
Dilution Factor	20				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 23 2013 9:44PM				

<i>Total Metals by EPA 200.8</i>	<i>EPA 200.8</i>	<i>Batch: 13052402 Run: 1</i>			
	<b>Result</b>	<b>Reporting</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>

		<b>Limit</b>		
Aluminum	12300	4000	20	ug/L
Antimony	<2000	2000	5	ug/L
Arsenic	<200	200	0.5	ug/L
Barium	<2000	2000	2.0	ug/L
Beryllium	<100	100	0.1	ug/L
Boron	<5000	5000	5.0	ug/L
Cadmium	<200	200	0.3	ug/L
Calcium	231	8	0.04	mg/L
Chromium	<200	200	0.3	ug/L
Cobalt	<200	200	0.5	ug/L
Copper	<200	200	0.5	ug/L
Iron	<4000	4000	10.0	ug/L
Lead	<200	200	0.1	ug/L
Magnesium	300	20	0.1	mg/L
Manganese	1200	200	0.2	ug/L
Nickel	<500	500	0.5	ug/L
Potassium	<200	200	0.05	mg/L
Selenium	<400	400	0.5	ug/L
Silver	<1000	1000	1.0	ug/L
Sodium	1020	8	0.02	mg/L
Thallium	<500	500	0.05	ug/L
Vanadium	<500	500	1.0	ug/L
Zinc	<600	600	2.0	ug/L
Dilution Factor	200			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 24 2013 5:34AM			
Prep By				
Prep Date/Time				

**Client:** Special Samples

**Client Sample ID:** TW-24-03 Deep

**Lab ID:** 2013-1712

**Collection Date:** 5/15/2013 2:45:00 PM

**Matrix:** Groundwater

**Analyses**

**Total Metals by EPA 200.8**

**EPA 200.8**

**Batch: 13052402 Run: 1**

	<b>Result</b>	<b>Reporting Limit</b>	<b>MDL</b>	<b>Qual</b>	<b>Unit</b>
Aluminum	<4000	4000	20		ug/L
Antimony	<2000	2000	5		ug/L
Arsenic	<200	200	0.5		ug/L
Barium	<2000	2000	2.0		ug/L
Beryllium	<100	100	0.1		ug/L
Boron	<5000	5000	5.0		ug/L
Cadmium	<200	200	0.3		ug/L
Calcium	284	8	0.04		mg/L
Chromium	<200	200	0.3		ug/L
Cobalt	<200	200	0.5		ug/L
Copper	<200	200	0.5		ug/L
Iron	<4000	4000	10.0		ug/L
Lead	<200	200	0.1		ug/L
Magnesium	277	20	0.1		mg/L
Manganese	284	200	0.2		ug/L
Nickel	<500	500	0.5		ug/L
Potassium	<200	200	0.05		mg/L
Selenium	<400	400	0.5		ug/L
Silver	<1000	1000	1.0		ug/L
Sodium	821	8	0.02		mg/L
Thallium	<500	500	0.05		ug/L
Vanadium	<500	500	1.0		ug/L
Zinc	<600	600	2.0		ug/L
Dilution Factor	200				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 24 2013 6:00AM				
Prep By					
Prep Date/Time					

**Client:** Special Samples

**Client Sample ID:** TW-32-02

**Lab ID:** 2013-1715

**Collection Date:** 5/15/2013 3:30:00 PM

**Matrix:** Groundwater

**Analyses**

***Dissolved Metals by EPA 200.8***

***EPA 200.8***

**Batch: 13052401 Run: 1**

	<b><u>Result</u></b>	<b><u>Reporting Limit</u></b>	<b><u>MDL</u></b>	<b><u>Qual</u></b>	<b><u>Unit</u></b>
Aluminum	<400	400	20		ug/L
Antimony	<100	100	1.0		ug/L
Arsenic	<10	10	0.2		ug/L
Barium	105	40	0.4		ug/L
Beryllium	<2	2	0.04		ug/L
Boron	<100	100	2.0		ug/L
Cadmium	<2	2	0.05		ug/L
Calcium	4.23	0.6	0.03		mg/L
Chromium	<10	10	0.05		ug/L
Cobalt	22.5	10	0.05		ug/L
Copper	<10	10	0.2		ug/L
Iron	<400	400	5.0		ug/L
Lead	<6	6	0.02		ug/L
Magnesium	3.76	0.4	0.01		mg/L
Manganese	534	6	0.07		ug/L
Nickel	<10	10	0.15		ug/L
Potassium	<0.4	0.4	0.01		mg/L
Selenium	<20	20	0.2		ug/L
Silicon Dioxide	23.9	1	0.01		mg/L
Silver	<10	10	0.02		ug/L
Sodium	25.9	0.4	0.01		mg/L
Thallium	<10	10	0.005		ug/L
Vanadium	<10	10	0.3		ug/L
Zinc	<20	20	0.3		ug/L
Hardness	26.0	20	1.0		mg/L
Dilution Factor	20				
Analyzed By	Robert Graddy				
Analysis Date/Time	May 23 2013 10:03PM				

## Analytical Quality Control Results Report

<b>Batch: 13052001</b>	<b>Semi-VOA water (Prep)</b>
<i>TW-36-04 Deep</i>	<i>LIMS ID: 2013-1709</i>

*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	5/16/2013 08:00				
2-Fluorophenol (% Recovery)	25.3 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	53.6 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	49.0 %			40 - 110	
2,4,6-Tribromophenol (% Recovery)	54.3 %			40 - 110	
Terphenyl-d14 (% Recovery)	72.0 %			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)	27.8 %				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)	14.0 %			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	<0.2 ug/L	0.2	0.2	
Hexachlorobutadiene (RPD)	0 %			0 - 40
N-Nitrosodibutylamine	<0.24 ug/L	0.2	0.24	
N-Nitrosodibutylamine (RPD)	0 %			0 - 40
4-Chloro-3-methylphenol (RPD)	0 %			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 (RPD)	0 %			0 - 40
1,2,4,5-Tetrachlorobenzene	<0.1 ug/L	0.1	0.1	



Hexachlorocyclopentadiene	<0.16 ug/L	0.16	0.16	
Hexachlorocyclopentadiene (RPD)	0 %			0 - 40
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)	26.1 %			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)	11.2 %			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)	30.8 %			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	0.534 ug/L	0.2	0.2	
Di-n-butyl phthalate (RPD)	30.5 %			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)	200 %			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)	116 %			0 - 40
Bis(2-ethylhexyl)phthalate	0.445 ug/L	0.3	0.3	

Di-n-octyl phthalate	0.712 ug/L	0.3	0.3	
Di-n-octyl phthalate (RPD)	170 %			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	5/16/2013 5:48 PM			

<b>MB</b>	<b>LIMS ID: 13052001-MB-01</b>
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**Semi Volatiles - water MB**

**Run: 1**

<b>Parameter</b>	<b>Result</b>	<b>DL</b>	<b>RL</b>	<b>Accuracy Control</b>	<b>Precision Control</b>
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/16/2013 08:00				
2-Fluorophenol (% Recovery)	35.3 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	79.6 %			40 - 125	
2-Fluorobiphenyl (% Recovery)	63.4 %			40 - 125	
2,4,6-Tribromophenol (% Recovery)	50.6 %			40 - 125	
Terphenyl-d14 (% Recovery)	121 %			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	0.878 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	5/16/2013 11:57		

**Semi Volatiles - water LCS**

**Run: 1**

<b>Parameter</b>	<b>Result</b>	<b>DL</b>	<b>RL</b>	<b>Accuracy Control</b>	<b>Precision Control</b>
Initial Volume	500 mL				
Final Volume	1 mL				
Prep By	Ed Harris				
Prep Date/Time	5/16/2013 08:00				
2-Fluorophenol (% Recovery)	48.0 %			40 - 110	
Nitrobenzene-d5 (% Recovery)	87.8 %			50 - 125	
2-Fluorobiphenyl (% Recovery)	75.2 %			50 - 125	
2,4,6-Tribromophenol (% Recovery)	92.4 %			40 - 125	
Terphenyl-d14 (% Recovery)	110 %			50 - 125	
Methyl Methanesulfonate (% Recovery)	69.0 %			50 - 150	
Ethyl methanesulfonate (% Recovery)	81.7 %			50 - 150	
Phenol (% Recovery)	37.6 %			50 - 150	
Aniline (% Recovery)	57.1 %			50 - 150	
Bis(2-chloroethyl)ether (% Recovery)	98.8 %			50 - 150	
2-Chlorophenol (% Recovery)	93.7 %			50 - 150	
1,3-Dichlorobenzene (% Recovery)	59.4 %			50 - 150	
1,4-Dichlorobenzene (% Recovery)	57.1 %			50 - 150	
Benzyl alcohol (% Recovery)	82.6 %			50 - 150	
1,2-Dichlorobenzene (% Recovery)	62.8 %			50 - 150	
2-Methylphenol (% Recovery)	84.9 %			50 - 150	
Acetophenone (% Recovery)	103 %			50 - 150	
4-Methylphenol (% Recovery)	74.6 %			50 - 150	
N-Nitrosodi-n-propylamine (% Recovery)	102 %			50 - 150	
Hexachloroethane (% Recovery)	48.8 %			50 - 150	
Nitrobenzene (% Recovery)	101 %			50 - 150	
N-Nitrosopiperidine (% Recovery)	101 %			50 - 150	
Isophorone (% Recovery)	98.6 %			50 - 150	
2-Nitrophenol (% Recovery)	94.6 %			50 - 150	
2,4-Dimethylphenol (% Recovery)	9.1 %			50 - 150	
Bis(2-chloroethoxy)methane (% Recovery)	80.0 %			50 - 150	
2,4-Dichlorophenol (% Recovery)	93.2 %			50 - 150	
1,2,4-Trichlorobenzene (% Recovery)	68.4 %			50 - 150	
Naphthalene (% Recovery)	81.0 %			50 - 150	
4-Chloroaniline (% Recovery)	68.4 %			50 - 150	
2,6-Dichlorophenol (% Recovery)	98.5 %			50 - 150	
Hexachlorobutadiene (% Recovery)	48.4 %			50 - 150	
N-Nitrosodibutylamine (% Recovery)	103 %			50 - 150	
4-Chloro-3-methylphenol (% Recovery)	91.4 %			50 - 150	

2-Methylnaphthalene (% Recovery)	82.6 %	50 - 150
1,2,4,5-Tetrachlorobenzene (% Recovery)	73.0 %	50 - 150
Hexachlorocyclopentadiene (% Recovery)	50.0 %	50 - 150
2,4,6-Trichlorophenol (% Recovery)	95.5 %	50 - 150
2,4,5-Trichlorophenol (% Recovery)	106 %	50 - 150
2-Chloronaphthalene (% Recovery)	73.1 %	50 - 150
1-Chloronaphthalene (% Recovery)	77.3 %	50 - 150
2-Nitroaniline (% Recovery)	93.6 %	50 - 150
Dimethyl phthalate (% Recovery)	96.3 %	50 - 150
2,6-Dinitrotoluene (% Recovery)	107 %	50 - 150
Acenaphthylene (% Recovery)	91.0 %	50 - 150
3-Nitroaniline (% Recovery)	81.3 %	50 - 150
Acenaphthene (% Recovery)	88.9 %	50 - 150
2,4-Dinitrophenol (% Recovery)	77.0 %	50 - 150
Pentachlorobenzene (% Recovery)	88.5 %	50 - 150
4-Nitrophenol (% Recovery)	22.8 %	50 - 150
Dibenzofuran (% Recovery)	96.5 %	50 - 150
2,4-Dinitrotoluene (% Recovery)	99.5 %	50 - 150
2,3,4,6-Tetrachlorophenol (% Recovery)	94.5 %	50 - 150
Diethyl phthalate (% Recovery)	108 %	50 - 150
Fluorene (% Recovery)	93.5 %	50 - 150
4-Chlorophenyl phenyl ether (% Recovery)	98.0 %	50 - 150
4-Nitroaniline (% Recovery)	78.2 %	50 - 150
4,6-Dinitro-2-methylphenol (% Recovery)	74.9 %	50 - 150
Diphenylamine (% Recovery)	100 %	50 - 150
Azobenzene (% Recovery)	93.0 %	50 - 150
4-Bromophenyl phenyl ether (% Recovery)	92.5 %	50 - 150
Hexachlorobenzene (% Recovery)	89.1 %	50 - 150
Pentachlorophenol (% Recovery)	78.8 %	50 - 150
Pentachloronitrobenzene (% Recovery)	103 %	50 - 150
Pronamide (% Recovery)	105 %	50 - 150
Phenanthrene (% Recovery)	96.9 %	50 - 150
Anthracene (% Recovery)	89.7 %	50 - 150
Carbazole (% Recovery)	91.6 %	50 - 150
Di-n-butyl phthalate (% Recovery)	154 %	50 - 150
Fluoranthene (% Recovery)	96.6 %	50 - 150
Pyrene (% Recovery)	118 %	50 - 150
Dimethylaminoazobenzene (% Recovery)	104 %	50 - 150
Butyl benzyl phthalate (% Recovery)	105 %	50 - 150
Benzo (a) anthracene (% Recovery)	79.7 %	50 - 150

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Chrysene (% Recovery)	87.4 %	50 - 150
Bis(2-ethylhexyl)phthalate (% Recovery)	119 %	50 - 150
Di-n-octyl phthalate (% Recovery)	97.6 %	50 - 150
Benzo (b) fluoranthene (% Recovery)	82.6 %	50 - 150
7,12-Dimethylbenz (a) anthracene (% Recovery)	96.8 %	50 - 150
Benzo (k) fluoranthene (% Recovery)	69.1 %	50 - 150
Benzo (a) pyrene (% Recovery)	90.5 %	50 - 150
3-Methylcholanthrene (% Recovery)	85.2 %	50 - 150
Indeno (1,2,3-cd) pyrene (% Recovery)	99.1 %	50 - 150
Dibenzo (a,h) anthracene (% Recovery)	86.1 %	50 - 150
Benzo (g,h,i) perylene (% Recovery)	97.4 %	50 - 150
Dilution Factor	1	
Analyzed By	Ed Harris	
Analysis Date/Time	5/16/2013 12:26	



## Analytical Quality Control Results Report

<b>Batch: 13052304</b>	<b>VOA - water</b>
<b>TW-36-04 Deep</b>	<b>LIMS ID: 2013-1709</b>

*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)	96.4 %			70 - 130	
Toluene-d8 (% Recovery)	92.9 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	98.2 %			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 (RPD)	0 %				0 - 20
Trichlorofluoromethane	<0.51 ug/L	0.51	0.51		
1,1-Dichloroethene (RPD)	0 %				0 - 20
1,1-Dichloroethene	<0.43 ug/L	0.43	0.43		
Acetone	<10.5 ug/L	10.5	10.5		
Acetone (RPD)	33.8 %				0 - 20
Methylene chloride (RPD)	3.5 %				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	<0.42 ug/L	0.42	0.42		
1,1-Dichloroethane (RPD)	0 %				0 - 20
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

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 (RPD)	0 %			0 - 20
1,1-Dichloropropene	<0.59 ug/L	0.59	0.59	
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 (RPD)	0 %			0 - 20
Trichloroethene	<0.6 ug/L	0.6	0.6	
1,2-Dichloropropane	<0.98 ug/L	0.98	0.98	
1,2-Dichloropropane (RPD)	0 %			0 - 20
Dibromomethane (RPD)	0 %			0 - 20
Dibromomethane	<1.78 ug/L	1.78	1.78	
Bromodichloromethane	<0.65 ug/L	0.65	0.65	
Bromodichloromethane (RPD)	0 %			0 - 20
cis-1,3-Dichloropropene (RPD)	0 %			0 - 20
cis-1,3-Dichloropropene	<0.86 ug/L	0.86	0.86	
Methyl isobutyl ketone	<8.1 ug/L	8.1	8.1	
Methyl isobutyl ketone (RPD)	0 %			0 - 20
Toluene (RPD)	0 %			0 - 20
Toluene	<0.57 ug/L	0.57	0.57	
trans-1,3-Dichloropropene	<0.84 ug/L	0.84	0.84	
trans-1,3-Dichloropropene (RPD)	0 %			0 - 20
1,1,2-Trichloroethane (RPD)	0 %			0 - 20
1,1,2-Trichloroethane	<0.78 ug/L	0.78	0.78	
2-Hexanone	<9.5 ug/L	9.5	9.5	
2-Hexanone (RPD)	0 %			0 - 20
Tetrachloroethene (RPD)	0 %			0 - 20
Tetrachloroethene	<0.96 ug/L	0.96	0.96	
1,3-Dichloropropane	<0.94 ug/L	0.94	0.94	
1,3-Dichloropropane (RPD)	0 %			0 - 20
Dibromochloromethane (RPD)	0 %			0 - 20

Dibromochloromethane	<1.25 ug/L	1.25	1.25	
1,2-Dibromoethane (EDB)	<0.68 ug/L	0.68	0.68	
1,2-Dibromoethane (EDB) (RPD)	0 %			0 - 20
Chlorobenzene (RPD)	0 %			0 - 20
Chlorobenzene	<0.62 ug/L	0.62	0.62	
Ethylbenzene	<0.51 ug/L	0.51	0.51	
Ethylbenzene (RPD)	0 %			0 - 20
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	<1.2 ug/L	1.2	1.2	
m,p-Xylene (RPD)	200 %			0 - 20
o-Xylene (RPD)	0 %			0 - 20
o-Xylene	<0.5 ug/L	0.5	0.5	
Styrene	<0.53 ug/L	0.53	0.53	
Styrene (RPD)	0 %			0 - 20
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
1,1,1,2,2-Tetrachloroethane (RPD)	0 %			0 - 20
1,1,1,2,2-Tetrachloroethane	<0.39 ug/L	0.39	0.39	
1,2,3-Trichloropropane	<1.83 ug/L	1.83	1.83	
1,2,3-Trichloropropane (RPD)	0 %			0 - 20
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 (RPD)	0 %			0 - 20
1,3,5-Trimethylbenzene	<0.3 ug/L	0.3	0.3	
2-Chlorotoluene	<0.66 ug/L	0.66	0.66	
2-Chlorotoluene (RPD)	0 %			0 - 20
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

p-Isopropyltoluene	<0.59 ug/L	0.59	0.59	
1,3-Dichlorobenzene	<0.7 ug/L	0.7	0.7	
1,3-Dichlorobenzene (RPD)	0 %			0 - 20
1,4-Dichlorobenzene (RPD)	0 %			0 - 20
1,4-Dichlorobenzene	<0.53 ug/L	0.53	0.53	
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 (RPD)	0 %			0 - 20
1,2,3-Trichlorobenzene	<1.3 ug/L	1.3	1.3	
Dilution Factor	1			
Analyzed By	Jeff Ruehr			
Analysis Date/Time	5/16/2013 2:04 PM			

**TW-36-04 Deep** **LIMS ID: 2013-1709**

**Volatiles - water MS**

**Run: 1**

<b>Parameter</b>	<b>Result</b>	<b>DL</b>	<b>RL</b>	<b>Accuracy Control</b>	<b>Precision Control</b>
Dibromofluoromethane (% Recovery)	101 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	98.1 %			70 - 130	
Toluene-d8 (% Recovery)	95.1 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	103 %			70 - 130	
1,1-Dichloroethene (% Recovery)	84.9 %			70 - 130	
Benzene (% Recovery)	91.7 %			70 - 130	
Trichloroethene (% Recovery)	87.8 %			70 - 130	
Toluene (% Recovery)	84.6 %			70 - 130	
Chlorobenzene (% Recovery)	87.6 %			70 - 130	
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	5/16/2013 2:30 PM				

**TW-36-04 Deep** **LIMS ID: 2013-1709**

**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)	97.4 %			70 - 130	
Toluene-d8 (% Recovery)	102 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	108 %			70 - 130	
1,1-Dichloroethene (% Recovery)	97.1 %			70 - 130	
1,1-Dichloroethene (RPD)	13.3 %				0 - 20
Benzene (RPD)	10.3 %				0 - 20
Benzene (% Recovery)	102 %			70 - 130	
Trichloroethene (RPD)	10.0 %				0 - 20
Trichloroethene (% Recovery)	97.0 %			70 - 130	
Toluene (% Recovery)	98.9 %			70 - 130	
Toluene (RPD)	15.6 %				0 - 20
Chlorobenzene (RPD)	17.5 %				0 - 20
Chlorobenzene (% Recovery)	104 %			70 - 130	
Dilution Factor	1				
Analyzed By	Jeff Ruehr				
Analysis Date/Time	5/16/2013 2:55 PM				

**LCS** **LIMS ID: 13052304-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)	93.5 %			70 - 130	
1,2-Dichloroethane-d4 (% Recovery)	96.1 %			70 - 130	
Toluene-d8 (% Recovery)	92.9 %			70 - 130	
4-Bromofluorobenzene (% Recovery)	99.4 %			70 - 130	
Dichlorodifluoromethane (% Recovery)	77.1 %			60 - 130	
Chloromethane (% Recovery)	75.3 %			60 - 130	
Vinyl chloride (% Recovery)	84.3 %			60 - 130	
Bromomethane (% Recovery)	60.3 %			60 - 130	
Chloroethane (% Recovery)	75.0 %			60 - 130	
Trichlorofluoromethane (% Recovery)	87.5 %			60 - 130	
1,1-Dichloroethene (% Recovery)	89.9 %			60 - 130	
Acetone (% Recovery)	102 %			60 - 130	
Methylene chloride (% Recovery)	93.8 %			60 - 130	
Methyl tert-butyl ether (% Recovery)	93.9 %			60 - 130	
trans-1,2-Dichloroethene (% Recovery)	90.1 %			60 - 130	
1,1-Dichloroethane (% Recovery)	92.7 %			60 - 130	

Methyl ethyl ketone (% Recovery)	97.7 %	60 - 130
cis-1,2-Dichloroethene (% Recovery)	91.9 %	60 - 130
2,2-Dichloropropane (% Recovery)	92.0 %	60 - 130
Bromochloromethane (% Recovery)	91.2 %	60 - 130
Chloroform (% Recovery)	92.4 %	60 - 130
1,1,1-Trichloroethane (% Recovery)	91.5 %	60 - 130
1,1-Dichloropropene (% Recovery)	88.4 %	60 - 130
Carbon tetrachloride (% Recovery)	89.4 %	60 - 130
Benzene (% Recovery)	92.2 %	60 - 130
1,2-Dichloroethane (% Recovery)	91.1 %	60 - 130
Trichloroethene (% Recovery)	94.2 %	60 - 130
1,2-Dichloropropane (% Recovery)	89.8 %	60 - 130
Dibromomethane (% Recovery)	90.9 %	60 - 130
Bromodichloromethane (% Recovery)	92.5 %	60 - 130
cis-1,3-Dichloropropene (% Recovery)	90.6 %	60 - 130
Methyl isobutyl ketone (% Recovery)	93.5 %	60 - 130
Toluene (% Recovery)	90.2 %	60 - 130
trans-1,3-Dichloropropene (% Recovery)	92.2 %	60 - 130
1,1,2-Trichloroethane (% Recovery)	90.6 %	60 - 130
2-Hexanone (% Recovery)	96.6 %	60 - 130
Tetrachloroethene (% Recovery)	85.8 %	60 - 130
1,3-Dichloropropane (% Recovery)	92.5 %	60 - 130
Dibromochloromethane (% Recovery)	91.3 %	60 - 130
1,2-Dibromoethane (EDB) (% Recovery)	93.2 %	60 - 130
Chlorobenzene (% Recovery)	91.7 %	60 - 130
Ethylbenzene (% Recovery)	88.0 %	60 - 130
1,1,1,2-Tetrachloroethane (% Recovery)	89.4 %	60 - 130
m,p-Xylene (% Recovery)	90.8 %	60 - 130
o-Xylene (% Recovery)	91.0 %	60 - 130
Styrene (% Recovery)	86.6 %	60 - 130
Bromoform (% Recovery)	89.2 %	60 - 130
Isopropylbenzene (% Recovery)	92.1 %	60 - 130
1,1,2,2-Tetrachloroethane (% Recovery)	92.9 %	60 - 130
1,2,3-Trichloropropane (% Recovery)	88.4 %	60 - 130
n-Propylbenzene (% Recovery)	86.9 %	60 - 130
Bromobenzene (% Recovery)	92.2 %	60 - 130
1,3,5-Trimethylbenzene (% Recovery)	93.7 %	60 - 130
2-Chlorotoluene (% Recovery)	67.2 %	60 - 130
4-Chlorotoluene (% Recovery)	91.6 %	60 - 130
tert-Butylbenzene (% Recovery)	87.6 %	60 - 130

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1,2,4-Trimethylbenzene (% Recovery)	91.6 %	60 - 130
sec-Butylbenzene (% Recovery)	92.0 %	60 - 130
p-Isopropyltoluene (% Recovery)	90.2 %	60 - 130
1,3-Dichlorobenzene (% Recovery)	91.0 %	60 - 130
1,4-Dichlorobenzene (% Recovery)	90.4 %	60 - 130
n-Butylbenzene (% Recovery)	91.6 %	60 - 130
1,2-Dichlorobenzene (% Recovery)	91.7 %	60 - 130
1,2-Dibromo-3-chloropropane (% Recovery)	89.3 %	60 - 130
1,2,4-Trichlorobenzene (% Recovery)	89.3 %	60 - 130
Naphthalene (% Recovery)	90.7 %	60 - 130
1,2,3-Trichlorobenzene (% Recovery)	91.1 %	60 - 130
Dilution Factor	1	
Analyzed By	Jeff Ruehr	
Analysis Date/Time	5/16/2013 8:37	

## Analytical Quality Control Results Report

<b>Batch: 13052402</b>	<b>ICP Metals - water (total)</b>
<i>TW-36-04 Deep</i>	<i>LIMS ID: 2013-1709</i>

*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	<4000 ug/L	4000	4000		
Aluminum (RPD)	187 %				0 - 20
Antimony (RPD)	0 %				0 - 20
Antimony	<2000 ug/L	1000	2000		
Arsenic	<200 ug/L	100	200		
Arsenic (RPD)	0 %				0 - 20
Barium (RPD)	0 %				0 - 20
Barium	<2000 ug/L	400	2000		
Beryllium	<100 ug/L	20	100		
Beryllium (RPD)	0 %				0 - 20
Boron (RPD)	0 %				0 - 20
Boron	<5000 ug/L	1000	5000		
Cadmium	<200 ug/L	60	200		
Cadmium (RPD)	0 %				0 - 20
Calcium (RPD)	5.1 %				0 - 20
Calcium	243 mg/L	8	8		
Chromium	<200 ug/L	60	200		
Chromium (RPD)	0 %				0 - 20
Cobalt (RPD)	0 %				0 - 20
Cobalt	<200 ug/L	100	200		
Copper	<200 ug/L	100	200		
Copper (RPD)	0 %				0 - 20
Iron (RPD)	222 %				0 - 20
Iron	<4000 ug/L	2000	4000		
Lead	<200 ug/L	20	200		
Lead (RPD)	0 %				0 - 20
Magnesium (RPD)	3.6 %				0 - 20
Magnesium	311 mg/L	20	20		
Manganese	960 ug/L	40	200		
Manganese (RPD)	22 %				0 - 20
Nickel (RPD)	0 %				0 - 20
Nickel	<500 ug/L	100	500		
Potassium	<200 mg/L	10	200		



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Potassium (RPD)	0 %			0 - 20
Selenium (RPD)	0 %			0 - 20
Selenium	<400 ug/L	100	400	
Silver	<1000 ug/L	200	1000	
Silver (RPD)	0 %			0 - 20
Sodium	1050 mg/L	4	8	
Sodium (RPD)	2.4 %			0 - 20
Thallium (RPD)	0 %			0 - 20
Thallium	<500 ug/L	10	500	
Vanadium (RPD)	0 %			0 - 20
Vanadium	<500 ug/L	200	500	
Zinc	<600 ug/L	400	600	
Zinc (RPD)	40.3 %			0 - 20
Dilution Factor	200			
Analyzed By	Robert Graddy			
Analysis Date/Time	May 24 2013 5:53AM			