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October 29, 2013

Ms. Allison Urbon  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
5500 San Antonio Drive NE  
Albuquerque, New Mexico 87109

Dear Ms. Urbon:

EA Engineering, Science, and Technology, Inc. (EA) is submitting the 2<sup>nd</sup> Semi-Annual Groundwater Monitoring Report for Atex #213 located at 3501 Isleta Boulevard, Albuquerque, New Mexico. The report summarizes the groundwater monitoring event conducted to fulfill requirements stated in the New Mexico Administrative Code, Title 20, Chapter 5, Part 12 and the New Mexico Environment Department Petroleum Storage Tank Bureau Guidelines for Corrective Action. This is the fourth monitoring event performed by EA since February 2012.

Three wells could not be sampled due to the wells being dry, and five wells could not be sampled due to damage or recent paving; as a result, costs will be discounted for eight samples at a cost of \$120 each (\$1,027.20 plus NMGR). The total cost for the 2<sup>nd</sup> Semi-Annual Groundwater Monitoring Report under deliverable ID 3675-2 is therefore \$5,392.80 including NMGR.

Please let me know if you have any questions regarding the information provided in this report.

Sincerely,

A handwritten signature in black ink, appearing to read 'G. Desselle', with a horizontal line extending to the right.

Gary Desselle  
Project Manager

A handwritten signature in blue ink, appearing to read 'Jay Snyder', with a large, sweeping flourish at the end.

Jay Snyder  
Senior Hydrogeologist

Enclosure

Cc: File – EA Engineering, Science, and Technology, Inc.



**SEMI-ANNUAL GROUNDWATER  
MONITORING REPORT  
ATEX #213,  
3501 ISLETA BOULEVARD,  
ALBUQUERQUE,  
NEW MEXICO**

Prepared by:


EA Engineering, Science,  
and Technology, Inc.  
320 Gold Avenue SW, Suite 1210  
Albuquerque, New Mexico 87102

October 2013

EA Project No.6250106.04

**STATEMENT OF FAMILIARITY**

I, the undersigned, am personally familiar with the information submitted in this report and the attached documents and attest that it is true and complete.

Signature:   
Name: Gary Desselle  
Affiliation: EA Engineering, Science, and Technology, Inc.  
Title: Project Manager  
Date: October 29, 2013

## I. INTRODUCTION

EA Engineering, Science, and Technology, Inc. (EA) has completed the 2<sup>nd</sup> semi-annual groundwater monitoring event at the Atex #213 Site (Site) located at 3501 Isleta Boulevard, Albuquerque, New Mexico. The monitoring event was completed under state-lead contract # 11-667-3000-0002 and in accordance with the *Workplan for Semi-Annual Groundwater Monitoring* prepared by EA to satisfy the requirements stated in the New Mexico Administrative Code, Title 20, Chapter 5, Part 12 and the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) Guidelines for Corrective Action (GCA). The work plan was approved by the NMED PSTB on March 5, 2013 under work plan identification number (WPID #) 3675. This is the second deliverable under WPID #3675.

The Site is located at the intersection of Del Sur Drive and Isleta Boulevard in the South Valley area of Albuquerque, New Mexico (Figure 1). The Site is currently a vacant lot.

On October 1, 2013, fluid levels were measured in 11 of the 17 monitoring wells specified in the work plan; wells W-34, W-35, W-36, and W-37 had recently been paved over, well MW-4 had been destroyed, wells MW-1, MW-5 were dry, and well MW-3 could not be located. The latter well was subsequently located and the fluid level measured on October 10, 2013. Groundwater samples were collected from 9 monitoring wells (BB-2, MW-2, MW-3, MW-29, MW-38, NMW-1, NMW-4, RNMW-2, and RNMW-3). Although a fluid level was measured in well MW-6, insufficient water could be obtained for sampling. Groundwater samples were analyzed for volatile organic compounds (VOCs), including benzene, toluene, ethylbenzene, and xylenes (BTEX), methyl tertiary butyl ether (MTBE), and total naphthalenes by Environmental Protection Agency (EPA) Method 8260B. In addition, pH, specific conductance, and temperature were monitored in the field.

This report summarizes the results of the monitoring event.

## II. ACTIVITIES PERFORMED DURING THIS PERIOD

This section provides a brief description of monitoring activities performed during this monitoring period.

### A. Brief Description of Remediation System and Date Installed

A summary of corrective action activities conducted by EA at the Site follows:

- Site sampled December 2006 by Souder, Miller & Associates
- The Work Plan for the first two semi-annual groundwater monitoring events was approved by NMED on December 16, 2011.
- The Work Plan for the next two semi-annual groundwater monitoring events was approved by NMED on March 5, 2013.
- EA completed its 1<sup>st</sup> semi-annual sampling event in February 2012; EA has continued to monitor the site on a semi-annual basis since this time.

### B. Description of Activities Performed to Keep System Operating Properly

A remediation system has not been installed at the site.

### C. Monitoring Activities Performed

#### *Groundwater Sampling Activities*

Prior to collecting groundwater samples, fluid levels in 12 of 17 wells were gauged with an electronic water level meter. Table 1 provides a summary of the groundwater gauging data collected from the monitoring network. A potentiometric surface map (Figure 2) was constructed based on the collected data.

On October 1, 2013 eight monitoring wells were purged and sampled with new disposable polyethylene bailers. The work plan specified 17 wells to be sampled; samples were not collected from MW-1 and MW-5 due to the wells being dry; well MW-6 provided insufficient water for sampling, samples were not collected from wells W-34, W-35, W-36, or W-37 as they had recently been paved over. Well MW-4 was destroyed. Well MW-3 was believed to have been destroyed at the time of the October 1, 2013 monitoring event; however, it was later determined that this well was covered by weeds. It was located and sampled on October 10, 2013. Wells were sampled from clean to dirty to the extent possible to minimize cross-contamination. All equipment was decontaminated between wells with an Alconox™ solution to further ensure sample quality. Purge water was ground discharged in accordance with Section 1.7.2 of the GCA. Sampling was accomplished by carefully pouring groundwater from the disposable bailers into the sample containers.

Field parameters, including specific conductance, pH, and temperature, were measured with an Oakton PC 300 water quality meter during purging and prior to sampling. Dissolved oxygen (DO) was not measured due to the DO meter malfunctioning on October 1, 2013; however, it was operational on October 10, 2013. Specific conductance, pH and temperature were recorded on monitoring well sampling field forms. The water quality meter was calibrated and/or checked

against a standard in accordance with manufacturer's specifications prior to use. Monitoring well sampling field forms are provided in Appendix A.

Sample containers, preservatives, analytical methods, and holding times are specified in Table 2. Samples for VOC analysis were collected such that no headspace existed in the sample vial. All samples were preserved in accordance with method requirements, then immediately cooled to less than 6°C with ice and delivered under chain-of-custody to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico. The analytical laboratory report is provided in Appendix B.

#### *NAPL Recovery*

No NAPL was observed in any of the wells during this sampling event.

#### *Groundwater Sampling Results*

During this sampling event, all dissolved phase hydrocarbon concentrations were below New Mexico Water Quality Control Commission (NMWQCC) groundwater quality standards in all the wells sampled except well NMW-1 and MW-3. NMW-1 contained benzene and total naphthalenes above NMWQCC groundwater quality standards at concentrations of 290 micrograms per liter ( $\mu\text{g/L}$ ) and 52.1  $\mu\text{g/L}$ , respectively. MW-3 contained total naphthalenes at a concentration of 178  $\mu\text{g/L}$ . MTBE in downgradient well BB-2 dropped from 150  $\mu\text{g/L}$  in March 2013 to 53  $\mu\text{g/L}$  during this monitoring event. Laboratory results are summarized in Table 3.

#### **D. System Performance and Effectiveness**

No remediation system is installed at the site.

#### **E. Statement Verifying Containment of Release**

The benzene plume appears to be contained on site as shown on Figure 3. The MTBE plume also appears to be contained on site; this compound was below the Environmental Improvement Board (EIB) standard in all of the groundwater samples. Total naphthalene was above the NMWQCC standard in well MW-3 (178  $\mu\text{g/L}$ ) and NMW-1 (52.1  $\mu\text{g/L}$ ) but appears to be contained on site.

### III. SUMMARY AND CONCLUSIONS

This section summarizes the results, contains a brief discussion of site trends, and provides recommendations for future site activities.

#### A. Discussion of any Trends or Changes Noted in Analytical Results or Site Conditions

The results of groundwater gauging indicate that water levels have all risen by approximately one-third of a foot (except in well MW-6) when compared to the previous groundwater gauging conducted in March 2013. Based on well gauging results obtained since August 2012, the groundwater elevation obtained from well MW-6 does not appear to be representative. The initial water column in this well was only 0.22 feet. It immediately went dry upon bailing and is probably in poor hydraulic communication with the water table. Hydrographs for select wells are included in Appendix C. The overall direction of groundwater flow is to the south with a gradient which steepens in the central portion of the site (Figure 2).

Hydrocarbon concentrations in most wells at the site have dropped when compared to the March 2013 event. However, an overall hydrocarbon site assessment is difficult to make given the number of paved over or destroyed wells. It appeared that well MW-4 was purposely destroyed, while access to wells W-34 through W-37 can likely be obtained for the next monitoring event. The October 2013 distribution of dissolved phase organic contaminants is shown on Figure 3. Contaminant concentration trend graphs for selected analytes and wells are included in Appendix D.

Field parameters including pH, Specific conductance, and temperature were measured during sampling. The field parameters are summarized in Table 4.

#### B. Ongoing Assessment of Remediation System

No remediation system is installed at the site.

#### C. Recommendations

Based on the results of the groundwater monitoring, the following recommendations are provided:

- Continue groundwater monitoring.
- Well MW-1 has been dry since July 2005 and well MW-5 has been dry since EA began monitoring the site (February 2012). It is recommended that both of these wells be plugged and abandoned.
- Wells MW-6 and NMW-4 produce very little water and well NMW-4 additionally has bent casing. These wells should also be plugged and abandoned.
- Well MW-4 was found to be destroyed during this monitoring event. This well should be properly plugged and abandoned and replaced.
- Replacement wells should additionally be installed near wells MW-1, MW-5, MW-6, and NMW-4. Well NMW-4 is located at the downgradient end of the site, and this well will become important in tracking southern migration of the MTBE

plume. Continued contaminant migration in this direction may eventually impact the irrigation canal located to the south of the site (Figure 3).

- Permission should be obtained from the property owner (McDonald's) where wells W-34 through W-37 are located in order to remove the asphalt covering these upgradient wells.



## **TABLES**

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation	Depth to Water <sup>1</sup>	Groundwater Elevation
MW-1	1-Oct-13	4929.78	Dry	NM
	25-Mar-13		Dry	NM
	22-Aug-12		Dry	NM
	21-Feb-12		Dry	NM
	26-Dec-06		Dry	NM
	25-Sep-06		Dry	NM
	17-May-06		Dry	NM
	31-Jan-06		Dry	NM
	3-Nov-05		Dry	NM
	28-Jul-05		Dry	NM
22-Apr-04	9.25	4920.53		
MW-2	1-Oct-13	4932.01	11.64	4920.37
	25-Mar-13		11.96	4920.05
	22-Aug-12		11.68	4920.33
	21-Feb-12		12.13	4919.88
	26-Dec-06		11.94	4920.07
	25-Sep-06		11.82	4920.19
	17-May-06		11.72	4920.29
	31-Jan-06		12.27	4919.74
	3-Nov-05		11.45	4920.56
	28-Jul-05		11.39	4920.62
22-Apr-04	11.43	4920.58		
MW-3	10-Oct-13	4930.21	9.80	4920.41
	25-Mar-13		10.25	4919.96
	22-Aug-12		9.92	4920.29
	21-Feb-12		10.42	4919.79
	26-Dec-06		10.27	4919.94
	25-Sep-06		10.05	4920.16
	17-May-06		10.02	4920.19
	31-Jan-06		10.57	4919.64
	3-Nov-05		9.78	4920.43
	28-Jul-05		9.65	4920.56
22-Apr-04	9.71	4920.50		
MW-4	1-Oct-13	4932.55	Well Destroyed	
	25-Mar-13		12.64	4919.91
	22-Aug-12		12.32	4920.23
	21-Feb-12		12.81	4919.74
	26-Dec-06		12.64	4919.91
	25-Sep-06		12.42	4920.13
	17-May-06		12.35	4920.20
	31-Jan-06		12.94	4919.61
	3-Nov-05		12.19	4920.36
	28-Jul-05		12.03	4920.52
22-Apr-04	12.07	4920.48		
MW-5	1-Oct-13	4931.85	Dry	NM
	25-Mar-13		Dry	NM
	22-Aug-12		Dry	NM
	21-Feb-12		Dry	NM
	26-Dec-06		11.54	4920.31
	25-Sep-06		11.15	4920.70
	17-May-06		11.12	4920.73
	31-Jan-06		11.83	4920.02
	3-Nov-05		11.00	4920.85
	28-Jul-05		10.78	4921.07
22-Apr-04	11.44	4920.41		

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation	Depth to Water <sup>1</sup>	Groundwater Elevation
MW-6	1-Oct-13	4931.51	13.18	4918.33
	25-Mar-13		13.14	4918.37
	22-Aug-12		13.00	4918.51
	21-Feb-12		11.58	4919.93
	26-Dec-06		11.89	4919.62
	25-Sep-06		11.37	4920.14
	17-May-06		11.31	4920.20
	31-Jan-06		11.92	4919.59
	3-Nov-05		11.22	4920.29
	28-Jul-05		11.03	4920.48
	22-Apr-04		11.04	4920.47
MW-10	26-Dec-06	4930.98	Plugged	
	25-Sep-06			
	17-May-06			
	31-Jan-06			
	3-Nov-05			
	22-Apr-04			
MW-29	1-Oct-13	4930.19	9.81	4920.38
	25-Mar-13		10.11	4920.08
	22-Aug-12		9.87	4920.32
	21-Feb-12		10.32	4919.87
	26-Dec-06		11.14	4919.05
	25-Sep-06		10.01	4920.18
	17-May-06		9.89	4920.30
	31-Jan-06		10.45	4919.74
	3-Nov-05		9.66	4920.53
	28-Jul-05		9.56	4920.63
	22-Apr-04		9.60	4920.59
MW-38	1-Oct-13	4929.10	8.85	4920.25
	25-Mar-13		9.15	4919.95
	22-Aug-12		8.88	4920.22
	21-Feb-12		9.38	4919.72
	26-Dec-06		9.19	4919.91
	25-Sep-06		8.97	4920.13
	17-May-06		8.90	4920.20
	31-Jan-06		9.49	4919.61
	3-Nov-05		8.70	4920.40
	28-Jul-05		8.56	4920.54
	22-Apr-04		8.62	4920.48
BB-2	1-Oct-13	4931.31	11.70	4919.61
	25-Mar-13		12.05	4919.26
	22-Aug-12		11.69	4919.62
	21-Feb-12		12.24	4919.07
	26-Dec-06		12.04	4919.27
	25-Sep-06		11.72	4919.59
	17-May-06		11.66	4919.65
	31-Jan-06		12.36	4918.95
	3-Nov-05		11.56	4919.75
	28-Jul-05		11.34	4919.97
	22-Apr-04		10.88	4920.43

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation	Depth to Water <sup>1</sup>	Groundwater Elevation
NMW-1	1-Oct-13	4929.81	9.41	4920.40
	25-Mar-13		9.75	4920.06
	22-Aug-12		9.48	4920.33
	21-Feb-12		9.93	4919.88
	26-Dec-06		9.75	4920.06
	25-Sep-06		9.62	4920.19
	17-May-06		9.53	4920.28
	31-Jan-06		10.70	4919.11
	3-Nov-05		9.31	4920.50
	28-Jul-05		9.22	4920.59
22-Apr-04	9.24	4920.57		
NMW-2*	28-Jul-05	4930.38	Destroyed	NM
	22-Apr-04		10.03	4920.35
NMW-3*	28-Jul-05	4930.56	Destroyed	NM
	22-Apr-04		10.28	4920.28
NMW-4	1-Oct-13	4929.02	9.59	4919.43
	25-Mar-13		9.90	4919.12
	22-Aug-12		9.59	4919.43
	21-Feb-12		10.12	4918.90
	26-Dec-06		10.94	4918.08
	25-Sep-06		9.59	4919.43
	17-May-06		NM	NM
	31-Jan-06		NM	NM
	3-Nov-05		NM	NM
	28-Jul-05		NM	NM
22-Apr-04	10.33	4918.69		
W-34	1-Oct-13	4928.70	Well Paved Over	
	25-Mar-13		8.61	4920.09
	22-Aug-12		8.33	4920.37
	21-Feb-12		8.77	4919.93
	26-Dec-06		8.61	4920.09
	25-Sep-06		8.51	4920.19
	17-May-06		8.40	4920.30
	31-Jan-06		8.92	4919.78
	3-Nov-05		8.11	4920.59
	28-Jul-05		8.09	4920.61
22-Apr-04	7.92	4920.78		
W-35	1-Oct-13	4928.93	Well Paved Over	
	25-Mar-13		8.85	4920.08
	22-Aug-12		8.55	4920.38
	21-Feb-12		8.99	4919.94
	26-Dec-06		8.83	4920.10
	25-Sep-06		8.74	4920.19
	17-May-06		8.64	4920.29
	31-Jan-06		9.14	4919.79
	3-Nov-05		8.31	4920.62
	28-Jul-05		8.29	4920.64
22-Apr-04	8.14	4920.79		
W-36	1-Oct-13	4929.11	Well Paved Over	
	25-Mar-13		9.01	4920.10
	22-Aug-12		8.72	4920.39
	21-Feb-12		9.15	4919.96
	26-Dec-06		8.97	4920.14
	25-Sep-06		8.92	4920.19
	17-May-06		8.79	4920.32
	31-Jan-06		9.30	4919.81
	3-Nov-05		8.50	4920.61
	28-Jul-05		8.48	4920.63
22-Apr-04	8.31	4920.80		

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Monitor Well	Date Measured	Casing Elevation	Depth to Water <sup>1</sup>	Groundwater Elevation
W-37	1-Oct-13	4930.10	Well Paved Over	
	25-Mar-13		9.97	4920.13
	22-Aug-12		9.67	4920.43
	21-Feb-12		10.09	4920.01
	26-Dec-06		8.78	4921.32
	25-Sep-06		9.90	4920.20
	17-May-06		9.74	4920.36
	31-Jan-06		10.22	4919.88
	3-Nov-05		9.49	4920.61
	28-Jul-05		9.43	4920.67
	22-Apr-04		9.26	4920.84
RNMW-2**	1-Oct-13	4930.88	10.57	4920.31
	25-Mar-13		10.90	4919.98
	22-Aug-12		10.61	4920.27
	21-Feb-12		11.09	4919.79
	26-Dec-06		10.92	4919.96
	25-Sep-06		10.72	4920.16
	17-May-06		10.64	4920.24
	31-Jan-06		11.23	4919.65
	3-Nov-05		10.44	4920.44
	28-Jul-05		10.33	4920.55
RNMW-3**	1-Oct-13	4930.42	10.12	4920.30
	25-Mar-13		10.45	4919.97
	22-Aug-12		10.17	4920.25
	21-Feb-12		10.65	4919.77
	26-Dec-06		10.49	4919.93
	25-Sep-06		10.27	4920.15
	17-May-06		10.20	4920.22
	31-Jan-06		10.80	4919.62
	3-Nov-05		9.99	4920.43
	28-Jul-05		9.89	4920.53

NOTES:  
<sup>1</sup> Measured in feet below the top of casing at survey point on north side of well  
\* = Well Destroyed during source area excavation  
\*\* = Replacement well installed 4/27/05  
NM = not measured

**TABLE 2. SUMMARY OF SAMPLE ANALYTICAL AND  
QUALITY CONTROL REQUIREMENTS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Target Analytes	Matrix	Analytical Method	Sample Container	Preservative	Holding Time
VOCs	Water	EPA 8260B	3 x 40 mL glass vials	Mercuric Chloride; Cool to <6°C	14 days
<p>NOTES:  VOC = Volatile organic compounds  Method 8260B is used to determine VOCs  EPA = U.S. Environmental Protection Agency  °C = degrees Celcius  &lt; = less than</p>					

**TABLE 3. SUMMARY OF ANALYTICAL RESULTS  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Naphthalenes
MW-1	1-Oct-13	Dry	Dry	Dry	Dry	Dry	Dry
	22-Aug-12	Dry	Dry	Dry	Dry	Dry	Dry
	21-Feb-12	Dry	Dry	Dry	Dry	Dry	Dry
	26-Dec-06	Dry	Dry	Dry	Dry	Dry	Dry
	25-Sep-06	Dry	Dry	Dry	Dry	Dry	Dry
	17-May-06	Dry	Dry	Dry	Dry	Dry	Dry
	31-Jan-06	Dry	Dry	Dry	Dry	Dry	Dry
	3-Nov-05	Dry	Dry	Dry	Dry	Dry	Dry
	28-Jul-05	Dry	Dry	Dry	Dry	Dry	Dry
	22-Apr-04	<1.0	<1.0	4.8	<1.0	<1.0	4.3
Jan-98	ND	110	320	370	2,200	NA	
MW-2	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	3.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	NS	NS	NS	NS	NS	NS
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	2.5	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	1.9	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	3-Nov-05	NS	NS	NS	NS	NS	NS
	28-Jul-05	<1.0	<1.0	<1.0	<1.0	3.6	<10.0
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
Jan-98	1.9	ND	0.7	0.7	10	NA	
MW-3	10-Oct-13	8.1	2.3	23	21	<1.0	178
	26-Mar-13	3.7	1.8	18	22	<1.0	108
	23-Aug-12	6.4	<5.0	19	28	<5.0	60
	21-Feb-12	7.4	<5.0	37	55	<5.0	142
	26-Dec-06	160	58	220	460	530	610
	25-Sep-06	62	11	37	100	230	180
	17-May-06	46	6.5	29	55	230	142
	31-Jan-06	60	<20	83	110	500	170
	3-Nov-05	180	9.7	58	47	920	438
	28-Jul-05	52	<10	14	<10	410	90
	22-Apr-04	100	<10	25	11	320	98
Jan-98	2,400	110	320	370	2,200	NA	
MW-4	1-Oct-13	Well Destroyed					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	62	<4.0
	23-Aug-12	<1.0	<1.0	<1.0	<1.5	46	<4.0
	22-Feb-12	<1.0	<1.0	<1.0	<1.5	18	<4.0
	26-Dec-06	93	<10	<10	<30	790	<100
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	580	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	180	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	220	<10.0
	3-Nov-05	<5.0	<5.0	<5.0	<5.0	500	<50
	28-Jul-05	<1.0	<1.0	<1.0	<1.0	720	<10.0
22-Apr-04	590	<10	<10	<10	1400	<100	

**TABLE 3. SUMMARY OF ANALYTICAL RESULTS  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Naphthalenes
MW-5	1-Oct-13	Dry	Dry	Dry	Dry	Dry	Dry
	25-Mar-13	Dry	Dry	Dry	Dry	Dry	Dry
	22-Aug-12	Dry	Dry	Dry	Dry	Dry	Dry
	21-Feb-12	Dry	Dry	Dry	Dry	Dry	Dry
	26-Dec-06	<1.0	<1.0	<1.0	<3.0	25	<10.0
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	190	<10.0
	3-Nov-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	29-Jul-05	<1.0	<1.0	<1.0	<1.0	<2.0	<10.0
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	280	<10.0
Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA	
MW-6	1-Oct-13	Dry	Dry	Dry	Dry	Dry	Dry
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	1.1	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	1.8	<4.0
	22-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	33	<10	16	<30	720	395
	25-Sep-06	84	<5.0	32	15	1,200	630
	17-May-06	20	<10	11	<30	490	160
	31-Jan-06	24	<10	20	13	730	253
	3-Nov-05	46	<5.0	28	16	570	380
	29-Jul-05	45	<20	<20	<20	800	210
	23-Apr-04	50	<10	14	15	830	140
MW-29	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	23-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	NS	NS	NS	NS	NS	NS
	25-Sep-06	<1.0	<1.0	<1.0	<1.0	7.5	<10.0
	17-May-06	NS	NS	NS	NS	NS	NS
	31-Jan-06	NS	NS	NS	NS	NS	NS
	3-Nov-05	NS	NS	NS	NS	NS	NS
	29-Jul-05	<1.0	<1.0	<1.0	<1.0	6.8	<10.0
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	14	<10.0
1-Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA	
MW-38	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	23-Aug-12	1.5	<1.0	<1.0	<1.5	1.2	15
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	13	<1.0	2.5	<3.0	<1.5	12
	25-Sep-06	1.5	<1.0	<1.0	<3.0	<1.5	3.1
	17-May-06	1.4	<1.0	<1.0	<3.0	<1.5	<10.0
	31-Jan-06	2.5	<1.0	<1.0	<1.0	<1.0	2.5
	3-Nov-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	29-Jul-05	1.4	<1.0	<1.0	<1.0	<1.0	<10.0
	22-Apr-04	1.7	<1.0	<1.0	<1.0	<1.0	<10.0
Jan-98	46	1.2	8.1	7.6	9	NA	



**TABLE 3. SUMMARY OF ANALYTICAL RESULTS  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Naphthalenes
BB-2	1-Oct-13	<1.0	<1.0	<1.0	<1.5	53	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	150	<4.0
	23-Aug-12	<1.0	<1.0	1.3	<1.5	94	17.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	290	<4.0
	26-Dec-06	NS	NS	NS	NS	NS	NS
	25-Sep-06	<1.0	<1.0	1.1	<1.0	<1.5	15.5
	17-May-06	NS	NS	NS	NS	NS	NS
	31-Jan-06	NS	NS	NS	NS	NS	NS
	3-Nov-05	NS	NS	NS	NS	NS	NS
	29-Jul-05	<1.0	<1.0	4.6	<1.0	<2.0	7.6
	22-Apr-04	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
Jan-98	5.8	ND	50	21	1,200	NA	
NMW-1	1-Oct-13	290	8.4	3.1	39	44	52.1
	26-Mar-13	510	17	22	71	130	126
	23-Aug-12	490	<10	23	70	94	48
	21-Feb-12	390	<10	33	38	110	92
	26-Dec-06	950	55	44	900	750	760
	25-Sep-06	410	<10	<10	86	420	140
	17-May-06	340	95	<20	1,700	320	840
	31-Jan-06	810	56	<50	1,100	570	220
	3-Nov-05	710	170	<50	640	480	190
	28-Jul-05	1,100	390	<50	3,600	840	920
	22-Apr-04	990	200	28	1,100	580	272
Jan-98	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	
NMW-2/RNMW-2	1-Oct-13	<1.0	<1.0	<1.0	<1.5	61	<4.0
	26-Mar-13	99	1.2	1.7	2.2	220	7.4
	22-Aug-12	54	<1.0	<1.0	<1.5	290	9.6
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	83	<4.0
	26-Dec-06	47	<10	<10	<30	1,000	20
	25-Sep-06	20	<10	16	<30	1,300	<100
	17-May-06	310	<1.0	31	19	550	14
	31-Jan-06	11	<1.0	45	4.1	560	3.0
	3-Nov-05	74	1.1	160	52	590	27.4
	28-Jul-05	320	11	710	120	1300	39
	23-Apr-04	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
NMW-3/RNMW-3	1-Oct-13	1.2	<1.0	<1.0	<1.5	83	4.0
	26-Mar-13	4.6	<1.0	<1.0	<1.5	86	5.4
	23-Aug-12	1.2	<1.0	<1.0	<1.5	170	5.5
	21-Feb-12	1.8	<1.0	<1.0	<1.5	120	4.9
	26-Dec-06	6.4	<5.0	<5.0	<15	580	<50
	25-Sep-06	220	<5	64.0	<15	1,400	110
	17-May-06	16	<1.0	7.9	<3.0	370	<10.0
	31-Jan-06	11	<1.0	16	6.4	550	3.3
	3-Nov-05	130	7.7	89	170	1,400	32.4
	28-Jul-05	150	23	270	130	1,200	32.3
	23-Apr-04	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL
Jan-98	NAPL	NAPL	NAPL	NAPL	NAPL	NAPL	

**TABLE 3. SUMMARY OF ANALYTICAL RESULTS  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Naphthalenes
NMW-4	1-Oct-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	23-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	17-May-06	<1.0	<1.0	<1.0	<3.0	9.7	<10.0
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	3-Nov-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	29-Jul-05	<1.0	<1.0	<1.0	<1.0	<2.0	<10.0
	23-Apr-04	<1.0	<1.0	<1.0	<1.0	2.7	<10.0
Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA	
W-34	1-Oct-13	Well Paved Over					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	NS	NS	NS	NS	NS	NS
	25-Sep-06	<1.0	<1.0	<1.0	<3.0	<1.5	<10.0
	17-May-06	NS	NS	NS	NS	NS	NS
	31-Jan-06	NS	NS	NS	NS	NS	NS
	3-Nov-05	NS	NS	NS	NS	NS	NS
	28-Jul-05	<1.0	<1.0	3.7	1.3	<1.0	<10.0
	6-May-04	<1.0	<1.0	6.7	3.4	<1.0	<10.0
Jan-98	1.2	ND	7.6	7.2	<2.5	NA	
W-35	1-Oct-13	Well Paved Over					
	25-Mar-13	<1.0	<1.0	32	<1.5	<1.0	399
	22-Aug-12	<1.0	<1.0	6.9	<1.5	<1.0	55.3
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	NS	NS	NS	NS	NS	NS
	25-Sep-06	<1.0	<1.0	12	<3.0	<1.5	188
	17-May-06	NS	NS	NS	NS	NS	NS
	31-Jan-06	NS	NS	NS	NS	NS	NS
	3-Nov-05	NS	NS	NS	NS	NS	NS
	28-Jul-05	<5.0	<5.0	250	42	<5.0	400
	6-May-04	<1.0	<1.0	110	96	<1.0	164
Jan-98	ND	190	1700	5,600	ND	NA	
W-36	1-Oct-13	Well Paved Over					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	2.3	<1.5	<1.0	11
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	<1.0	<1.0	15	4.5	<1.5	55.3
	25-Sep-06	<1.0	<1.0	23	3.0	<1.5	81.7
	17-May-06	<1.0	<1.0	3.0	<3.0	<1.5	4.1
	31-Jan-06	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	3-Nov-05	<1.0	<1.0	2.9	3.6	<1.0	3.3
	28-Jul-05	<1.0	<1.0	55	77	<1.0	76.5
	6-May-04	<10	<10	190	390	<10	230
Jan-98	ND	4.4	39	56	12	NA	

**TABLE 3. SUMMARY OF ANALYTICAL RESULTS  
ATEX # 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	Benzene	Toluene	Ethyl Benzene	Total Xylenes	MTBE	Total Naphthalenes
W-37	1-Oct-13	Well Paved Over					
	25-Mar-13	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	22-Aug-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	21-Feb-12	<1.0	<1.0	<1.0	<1.5	<1.0	<4.0
	26-Dec-06	NS	NS	NS	NS	NS	NS
	25-Sep-06	<1.0	<1.0	12	<3.0	<1.5	<10.0
	17-May-06	NS	NS	NS	NS	NS	NS
	31-Jan-06	NS	NS	NS	NS	NS	NS
	3-Nov-05	NS	NS	NS	NS	NS	NS
	28-Jul-05	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
	6-May-04	<1.0	<1.0	<1.0	<1.0	<1.0	<10.0
Jun-94	<0.5	<0.5	<0.5	<0.5	<2.5	NA	

NOTES:  
 All data reported prior to 2012 from *Groundwater Monitoring Report, ATEX #213 UST Release Site- Albuquerque, New Mexico* (Souder Miller Associates, 2007)  
 All concentrations reported in parts per billion (micrograms per liter)  
 NA = Not analyzed  
 NS = Not sampled  
 ND = Not detected  
 MTBE = methyl tertiary butyl ether

**TABLE 4. SUMMARY OF FIELD PARAMETERS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**

Well Number	Date Sampled	pH	SpC ( $\mu$ S/cm)	Temp	DO (mg/L)
MW-1	1-Oct-13	DRY			
	25-Mar-13	DRY			
	22-Aug-12	DRY			
	21-Feb-12	DRY			
MW-2	1-Oct-13	6.31	1,023	25.5	--
	25-Mar-13	6.29	1,111	18.4	1.04
	22-Aug-12	8.17	950	24.5	1.31
	21-Feb-12	NM	761	19.7	1.35
MW-3	10-Oct-13	7.23	942	22.6	1.15
	25-Mar-13	6.64	1,021	17.6	0.97
	23-Aug-12	8.48	963	20.9	1.07
	21-Feb-12	NM	898	18.4	1.15
MW-4	1-Oct-13	Well Destroyed			
	25-Mar-13	6.42	946	18.0	1.20
	23-Aug-12	8.11	980	24.9	1.38
	22-Feb-12	6.09	981	13.8	1.21
MW-5	1-Oct-13	DRY			
	25-Mar-13	DRY			
	22-Aug-12	DRY			
	21-Feb-12	DRY			
MW-6	1-Oct-13 <sup>1</sup>	NM	NM	NM	NM
	25-Mar-13	NM	NM	NM	NM
	22-Aug-12	NM	NM	NM	NM
	22-Feb-12	6.37	6,310	15.6	NM
MW-29	1-Oct-13	6.29	1,024	24.9	--
	25-Mar-13	6.35	1,231	16.2	1.34
	23-Aug-12	7.18	1,179	26.3	0.99
	21-Feb-12	NM	884	16.7	1.82
MW-38	1-Oct-13	6.13	1,003	25.4	--
	25-Mar-13	6.41	1,034	17.4	0.77
	23-Aug-12	7.79	1,090	25.1	2.1
	21-Feb-12	NM	859	17.8	1.08
BB-2	1-Oct-13	6.27	952	23.2	--
	25-Mar-13	6.43	1,009	17.1	1.47
	23-Aug-12	7.61	1,002	26.9	1.19
	21-Feb-12	NM	798	17.5	2.32
NMW-1	1-Oct-13	6.30	1,091	26.0	--
	26-Mar-13	6.31	1,124	17.1	0.63
	23-Aug-12	8.43	1,066	24.1	1.11
	21-Feb-12	NM	904	18.2	1.18

**TABLE 4. SUMMARY OF FIELD PARAMETERS  
ATEX 213, ALBUQUERQUE, NEW MEXICO**


Well Number	Date Sampled	pH	SpC ( $\mu\text{S}/\text{cm}$ )	Temp	DO (mg/L)
RNMW-2	1-Oct-13	6.49	1,051	24.5	--
	26-Mar-13	6.43	1,048	18.6	0.74
	22-Aug-12	7.84	1,176	23.1	1.28
	21-Feb-12	NM	852	19.3	1.14
RNMW-3	1-Oct-13	6.37	1,065	25.0	--
	26-Mar-13	6.71	1,002	18.5	0.70
	23-Aug-12	8.28	1,128	25.2	1.21
	21-Feb-12	NM	976	19.1	1.52
NMW-4	1-Oct-13 <sup>1</sup>	NM	NM	NM	NM
	25-Mar-13	NM	NM	NM	NM
	23-Aug-12	NM	NM	NM	NM
	21-Feb-12	NM	NM	NM	NM
W-34	1-Oct-13	Paved Over			
	25-Mar-13	6.55	1,129	17.3	0.77
	22-Aug-12	7.59	822	23.4	1.02
	21-Feb-12	NM	820	18.5	1.07
W-35	1-Oct-13	Paved Over			
	25-Mar-13	6.63	1,238	16.7	0.84
	22-Aug-12	7.73	1,091	25.0	0.96
	21-Feb-12	NM	852	17.7	0.97
W-36	1-Oct-13	Paved Over			
	25-Mar-13	6.24	1,143	17.5	0.75
	22-Aug-12	8.14	976	24.6	1.06
	21-Feb-12	NM	863	18.0	1.25
W-37	1-Oct-13	Paved Over			
	25-Mar-13	6.86	1,085	19.1	1.04
	22-Aug-12	6.82	1,012	24.3	1.15
	21-Feb-12	NM	819	19.9	1.21

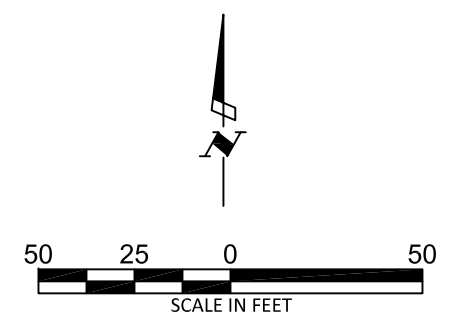
NOTES:  
<sup>1</sup> - Unable to obtain parameters due to extremely poor recharge  
DO = Dissolved oxygen. Meter malfunctioning during the October 2013 event  
mg/L = Milligrams per liter  
NM = Not Measured  
SpC = Specific conductance measured in micro siemens per centimeter ( $\mu\text{S}/\text{cm}$ )  
Temp = Temperature in degrees Celsius  
-- = meter malfunction, parameter not taken  
 $\mu\text{S}/\text{cm}$  = Microsiemens per centimeter

## **FIGURES**



**LEGEND:**

 MW-2 MONITORING WELL

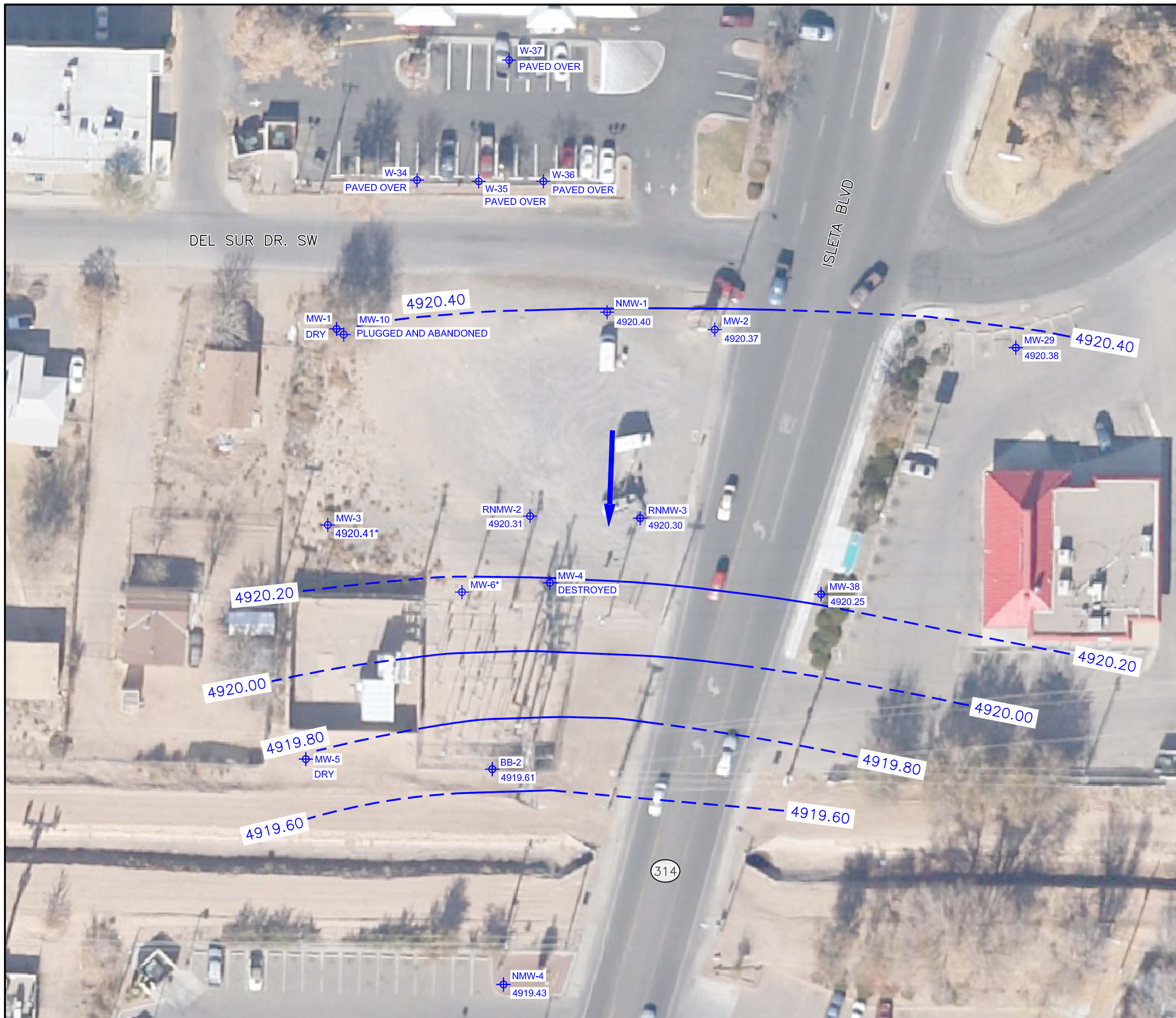


ATEX #213  
 SOUTH VALLEY AREA,  
 ALBUQUERQUE, BERNALILLO COUNTY,  
 NEW MEXICO





**FIGURE 1**  
**SITE LAYOUT**  
**OCTOBER 2013**

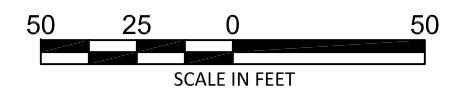
PROJECT #:	6250106	PROJECT PHASE:	04	PROJECT MANAGER:	GD
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**LEGEND:**

-  MW-2  
4920.37
 MONITORING WELL
-  4920.40
 GROUNDWATER CONTOURS,  
(DASHED WHERE INFERRED)  
FEET ABOVE MEAN SEA LEVEL
- 
GROUNDWATER FLOW DIRECTION
-  \*
 MONITORING WELL NOT USED IN  
POTENTIOMETRIC CONTOURING



ATEX #213  
SOUTH VALLEY AREA,  
ALBUQUERQUE, BERNALILLO COUNTY,  
NEW MEXICO

**FIGURE 2**  
**POTENTIOMETRIC SURFACE MAP**  
**OCTOBER 2013**

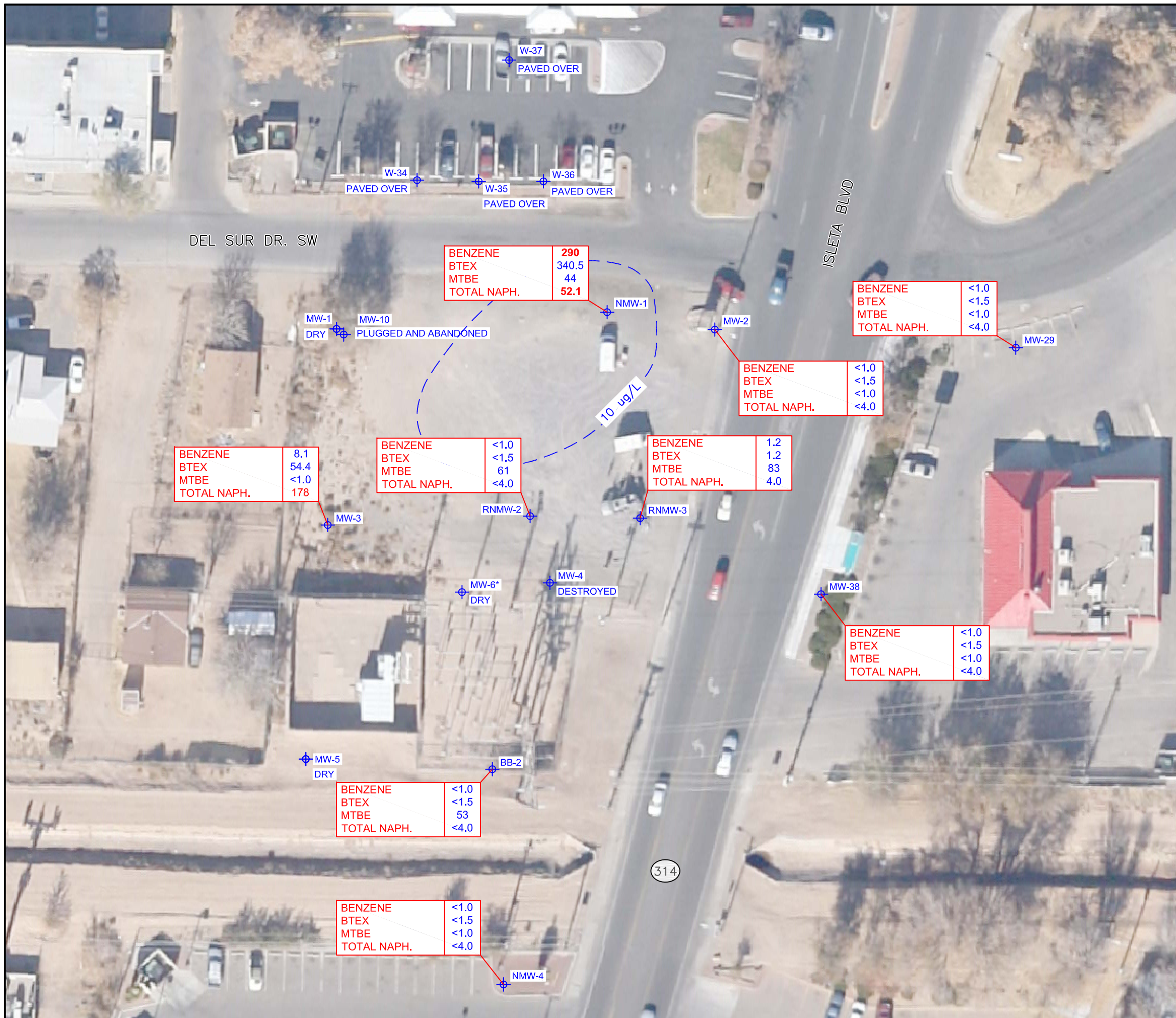
PROJECT #:	6250106	PROJECT PHASE:	04	PROJECT MANAGER:	GD
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EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.

320 Gold Avenue, SW Suite 1210  
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Phone: (505) 224-8013  
Fax: (505) 224-8016



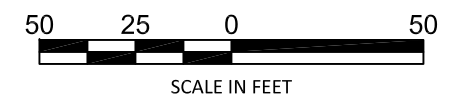


**LEGEND:**

-  MONITORING WELL
- BTEX BENZENE, TOLUENE, ETHYLBENZENE, TOTAL XYLENES
- MTBE METHYL TERTIARY BUTYL ETHER
- TOTAL NAPH. TOTAL NAPHTHALENES
-  ESTIMATED EXTENT OF BENZENE (10 ug/L)

**NOTES:**

1. ALL CONCENTRATIONS ARE IN MICROGRAMS PER LITER (ug/L)
2. **RED NUMBER** INDICATES CONCENTRATIONS ARE ABOVE NEW MEXICO WATER QUALITY CONTROL COMMISSION (NMWQCC) STANDARDS.



ATEX #213  
SOUTH VALLEY AREA,  
ALBUQUERQUE, BERNALILLO COUNTY,  
NEW MEXICO

**FIGURE 3**  
**CONTAMINANT CONCENTRATION MAP**  
**OCTOBER 2013**

PROJECT #: 6250106 PROJECT PHASE: 04 PROJECT MANAGER: GD



EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.

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**APPENDIX A  
FIELD FORMS**



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID BB-2 Date gauged 10-1-13  
 Site ATEX213 Time gauged 10:38  
 Depth to PSH      Feet Well diameter 2" Inches  
 Depth to water 11.70 Feet Height of fluid column 2.65 Feet  
 Total depth 14.35 Feet Volume in well 0.45 Gallons

(3 well volumes = 1.35 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1410 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1410	0.25	24.7	958	6.33	}	}
1413	0.75	24.0	921	6.28		
1416	1.50	23.2	952	6.27		

Actual purge volume \_\_\_\_\_ gal. Field measurements stabilized within ± 10%? yes

Time/date sampled 10-1-13 1420 Purged/sampled by A. Candelaria

Sample method disposable bailer

Requested analyses 8260 B

Comments/observations \_\_\_\_\_

**Well Casing Volumes**

2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft







**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-2 Date gauged 10-1-13  
 Site ATEX 213 Time gauged 956  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2" Inches  
 Depth to water 11.64 Feet Height of fluid column 5.89 Feet  
 Total depth 17.53 Feet Volume in well 1.00 Gallons

(3 well volumes = 3.00 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1336 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1336</u>	<u>0.25</u>	<u>26.6</u>	<u>1078</u>	<u>6.39</u>		
<u>1340</u>	<u>1.75</u>	<u>25.9</u>	<u>1028</u>	<u>6.32</u>		
<u>1344</u>	<u>3.0</u>	<u>25.5</u>	<u>1023</u>	<u>6.31</u>		

Actual purge volume 3.25 gal. Field measurements stabilized within ± 10%? yes

Time/date sampled 10-1-13 1345 Purged/sampled by A. Conzelmann

Sample method disposable bailer

Requested analyses 8260 B

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-3 Date gauged 10-10-13  
 Site ATEX Time gauged 1205  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2 Inches  
 Depth to water 9.80 Feet Height of fluid column 6.1 Feet  
 Total depth 15.90 Feet Volume in well 1.04 Gallons  
 NAPL thickness \_\_\_\_\_ Feet  
 (3 well volumes = 3.11 gallons)

After Bailing NAPL

Depth to PSH \_\_\_\_\_ Feet

Depth to water \_\_\_\_\_ Feet

NAPL thickness \_\_\_\_\_ Feet

NAPL Recovered \_\_\_\_\_ Gallons

**GROUNDWATER SAMPLING DATA**

Time/date purged 1207 Purge Method \_\_\_\_\_ Hand Bail \_\_\_\_\_

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1207	0.25	22.7	995	7.02		
1210	1.75	22.7	952	7.16		
1214	3.0	22.6	942	7.23		

Actual purge volume 3.25 gal. Field measurements stabilized within ± 10%? yes  
 Time/date sampled 1220 10-10-13 Purged/sampled by [Signature]  
 Sample method Disposable Bailer  
 Requested analyses 8260B  
 Comments/observations \_\_\_\_\_

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft    4" diameter = 0.66 gal/ft    6" diameter = 1.50 gal/ft









**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-10 Date gauged 10-1-13  
 Site ATEX 213 Time gauged 1020  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2" 1.5" Inches  
 Depth to water 13.18 Feet Height of fluid column 0.22 Feet  
 Total depth 13.40 Feet Volume in well ~~0.02~~ 0.02 Gallons

(3 well volumes = 0.06 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged \_\_\_\_\_ Purge Method \_\_\_\_\_

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
	could not recover					

Actual purge volume \_\_\_\_\_ gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled \_\_\_\_\_ Purged/sampled by \_\_\_\_\_

Sample method \_\_\_\_\_

Requested analyses \_\_\_\_\_

Comments/observations Used pencil bailer, but could not recover enough to sample or take parameters.

**Well Casing Volumes**  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft

u



### MONITOR WELL SAMPLING FIELD FORM

#### FLUID LEVEL DATA

Well ID MW-29 Date gauged 10-1-13  
 Site ATEX 213 Time gauged 0942  
 Depth to PSH — Feet Well diameter 2" Inches  
 Depth to water 9.81 Feet Height of fluid column 1.03 6.09 Feet  
 Total depth 15.90 Feet Volume in well 1.03 Gallons

(3 well volumes = 3.11 gallons)

#### GROUNDWATER SAMPLING DATA

Time/date purged 10-1-13 1255 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1255</u>	<u>.25</u>	<u>26.2</u>	<u>1006</u>	<u>6.27</u>		
<u>1259</u>	<u>1.25</u>	<u>25.2</u>	<u>1023</u>	<u>6.23</u>		
<u>1303</u>	<u>2.50</u>	<u>24.9</u>	<u>1024</u>	<u>6.29</u>		

Actual purge volume 3.50 ~~13~~ gal. Field measurements stabilized within ± 10%? yes

Time/date sampled 10-1-13 1305 Purged/sampled by A. Candelarra

Sample method disposable bailer

Requested analyses 826013

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID MW-38 Date gauged 10-1-13  
 Site ATEX 213 Time gauged 0947  
 Depth to PSH \_\_\_\_\_ Feet Well diameter 2" Inches  
 Depth to water 8.85 Feet Height of fluid column 3.08 Feet  
 Total depth 11.93 Feet Volume in well 0.52 Gallons  
 (3 well volumes = 1.57 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1315 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1315</u>	<u>0.25</u>	<u>26.3</u>	<u>1008</u>	<u>6.10</u>		
<u>1320</u>	<u>1.0</u>	<u>25.0</u>	<u>994</u>	<u>6.15</u>		
<u>1322</u>	<u>1.5</u>	<u>25.4</u>	<u>1003</u>	<u>6.13</u>		

Actual purge volume 1.75 gal. Field measurements stabilized within ± 10%? \_\_\_\_\_

Time/date sampled 10-1-13 1324 Purged/sampled by A. Candelaria

Sample method disposable bailer

Requested analyses 8260B

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft





**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID NMW-1 Date gauged 10-1-13  
 Site ATEX213 Time gauged 1116  
 Depth to PSH — Feet Well diameter 2" Inches  
 Depth to water 9.41 Feet Height of fluid column 5.09 Feet  
 Total depth 14.50 Feet Volume in well 0.87 Gallons

(3 well volumes = 2.60 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1521 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1521</u>	<u>0.25</u>	<u>21.2</u>	<u>1093</u>	<u>6.50</u>	}	}
<u>1524</u>	<u>1.25</u>	<u>26.4</u>	<u>1095</u>	<u>6.43</u>		
<u>1527</u>	<u>3.00</u>	<u>26.0</u>	<u>1091</u>	<u>6.30</u>		

Actual purge volume 3.25 gal. Field measurements stabilized within ± 10%? yes

Time/date sampled 10-1-13 1530 Purged/sampled by A. Candelaria

Sample method Disposable Bailer

Requested analyses 8260 B

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID NMW-4 Date gauged 09-10-1-13  
 Site ATEX 213 Time gauged 0925  
 Depth to PSH — Feet Well diameter 2" Inches  
 Depth to water 9.59 Feet Height of fluid column 1.91 Feet  
 Total depth 11.50 Feet Volume in well 0.33 Gallons

(3 well volumes = 0.97 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1224 Purge Method disposable bailer

	Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)	
1224	<del>0.25</del> ac	0.25	26.6	852	6.16			
1230	<del>0.75</del> ac	0.75	23.1	<del>615</del> ac	10.12			
	<del>1.0</del> ac	1.0	running out of water					
			sampled					

Actual purge volume 0.85 gal. Field measurements stabilized within ± 10%?           

Time/date sampled 10-1-13 1235 Purged/sampled by A. Candelario

Sample method ~~8260~~ disposable bailer

Requested analyses 8260 B

Comments/observations well is crooked Must use pencil bailer. A lot of sand is present Does not recharge readily.

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID RNMW-2 Date gauged 10-1-13  
 Site ATEX 213 Time gauged 1112  
 Depth to PSH      Feet Well diameter 2" Inches  
 Depth to water 10.57 Feet Height of fluid column 5.43 Feet  
 Total depth 16.00 Feet Volume in well 0.93 Gallons

(3 well volumes = 2.77 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1450 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
<u>1456</u>	<u>0.25</u>	<u>26.2</u>	<u>1003</u>	<u>6.43</u>		
<u>1501</u>	<u>1.50</u>	<u>24.6</u>	<u>1117</u>	<u>6.50</u>		
<u>1504</u>	<u>3.00</u>	<u>24.5</u>	<u>1051</u>	<u>6.49</u>		

Actual purge volume 3.25 gal. Field measurements stabilized within ± 10%? yes

Time/date sampled 10-1-13 1505 Purged/sampled by A. Candelario

Sample method disposable bailer

Requested analyses 82100 B

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft





**MONITOR WELL SAMPLING FIELD FORM**

**FLUID LEVEL DATA**

Well ID RNMW-3 Date gauged 10-1-13  
 Site ATEX 213 Time gauged 1040  
 Depth to PSH        Feet Well diameter 2.11 Inches  
 Depth to water 10.12 Feet Height of fluid column 5.7 Feet  
 Total depth 15.82 Feet Volume in well 1.0 Gallons

(3 well volumes = 3.0 gallons)

**GROUNDWATER SAMPLING DATA**

Time/date purged 10-1-13 1434 Purge Method disposable bailer

Time	Purge Volume (gal)	Temp (°C)	SpC (µs/cm)	pH	ORP (mV)	DO (mg/L)
1434	0.25	26.4	1191	6.34		
1437	1.50	25.5	1090	6.39		
1441	3.00	25.0	1003	6.37		

Actual purge volume \_\_\_\_\_ gal. Field measurements stabilized within ± 10%? yes

Time/date sampled 10-1-13 1445 Purged/sampled by A. Candelaria

Sample method disposable bailer

Requested analyses 8260B

Comments/observations \_\_\_\_\_  
 \_\_\_\_\_

Well Casing Volumes  
 2" diameter = 0.17 gal/ft 4" diameter = 0.66 gal/ft 6" diameter = 1.50 gal/ft



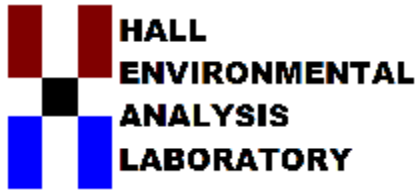








**APPENDIX B  
ANALYTICAL LABORATORY REPORTS**



Hall Environmental Analysis Laboratory  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: [www.hallenvironmental.com](http://www.hallenvironmental.com)

October 07, 2013

Gary Desselle

EA Engineering, Science and Technology  
320 Gold Ave SW Suite 1210  
Albuquerque, NM 87102  
TEL: (505) 224-9013  
FAX:

RE: ATEX 213

OrderNo.: 1310125

Dear Gary Desselle:

Hall Environmental Analysis Laboratory received 9 sample(s) on 10/2/2013 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to [www.hallenvironmental.com](http://www.hallenvironmental.com) or the state specific web sites. In order to properly interpret your results it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0190

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

**CLIENT:** EA Engineering, Science and Technology

**Client Sample ID:** RNMW-3

**Project:** ATEX 213

**Collection Date:** 10/1/2013 2:45:00 PM

**Lab ID:** 1310125-001

**Matrix:** AQUEOUS

**Received Date:** 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	1.2	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Methyl tert-butyl ether (MTBE)	83	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Naphthalene	4.0	2.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 5:11:28 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 5:11:28 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 5:11:28 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 5:11:28 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

**CLIENT:** EA Engineering, Science and Technology

**Client Sample ID:** RNMW-3

**Project:** ATEX 213

**Collection Date:** 10/1/2013 2:45:00 PM

**Lab ID:** 1310125-001

**Matrix:** AQUEOUS

**Received Date:** 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 5:11:28 PM	R13818
Isopropylbenzene	3.0	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 5:11:28 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
n-Propylbenzene	7.0	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
sec-Butylbenzene	1.5	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 5:11:28 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 5:11:28 PM	R13818
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%REC	1	10/3/2013 5:11:28 PM	R13818
Surr: 4-Bromofluorobenzene	88.5	70-130		%REC	1	10/3/2013 5:11:28 PM	R13818
Surr: Dibromofluoromethane	94.0	70-130		%REC	1	10/3/2013 5:11:28 PM	R13818
Surr: Toluene-d8	98.8	70-130		%REC	1	10/3/2013 5:11:28 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

**Hall Environmental Analysis Laboratory, Inc.**

CLIENT: EA Engineering, Science and Technology

Client Sample ID: NMW-1

Project: ATEX 213

Collection Date: 10/1/2013 3:30:00 PM

Lab ID: 1310125-002

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
Benzene	290	10		µg/L	10	10/3/2013 7:05:40 PM	R13818
Toluene	8.4	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Ethylbenzene	3.1	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Methyl tert-butyl ether (MTBE)	44	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2,4-Trimethylbenzene	3.6	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,3,5-Trimethylbenzene	11	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Naphthalene	20	2.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1-Methylnaphthalene	26	4.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
2-Methylnaphthalene	6.1	4.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 7:34:19 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 7:34:19 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 7:34:19 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 7:34:19 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		



# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: NMW-1

Project: ATEX 213

Collection Date: 10/1/2013 3:30:00 PM

Lab ID: 1310125-002

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 7:34:19 PM	R13818
Isopropylbenzene	2.7	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 7:34:19 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
n-Propylbenzene	1.1	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
sec-Butylbenzene	1.4	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 7:34:19 PM	R13818
Xylenes, Total	39	1.5		µg/L	1	10/3/2013 7:34:19 PM	R13818
Surr: 1,2-Dichloroethane-d4	114	70-130		%REC	1	10/3/2013 7:34:19 PM	R13818
Surr: 4-Bromofluorobenzene	90.6	70-130		%REC	1	10/3/2013 7:34:19 PM	R13818
Surr: Dibromofluoromethane	96.0	70-130		%REC	1	10/3/2013 7:34:19 PM	R13818
Surr: Toluene-d8	95.5	70-130		%REC	1	10/3/2013 7:34:19 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

**CLIENT:** EA Engineering, Science and Technology

**Client Sample ID:** MW-29

**Project:** ATEX 213

**Collection Date:** 10/1/2013 1:05:00 PM

**Lab ID:** 1310125-003

**Matrix:** AQUEOUS

**Received Date:** 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 9:30:51 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 9:30:51 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 9:30:51 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 9:30:51 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
	E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
	J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
	O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: MW-29

Project: ATEX 213

Collection Date: 10/1/2013 1:05:00 PM

Lab ID: 1310125-003

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 9:30:51 PM	R13818
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 9:30:51 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 9:30:51 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 9:30:51 PM	R13818
Surr: 1,2-Dichloroethane-d4	90.6	70-130		%REC	1	10/3/2013 9:30:51 PM	R13818
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	10/3/2013 9:30:51 PM	R13818
Surr: Dibromofluoromethane	90.7	70-130		%REC	1	10/3/2013 9:30:51 PM	R13818
Surr: Toluene-d8	95.7	70-130		%REC	1	10/3/2013 9:30:51 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: MW-2

Project: ATEX 213

Collection Date: 10/1/2013 1:45:00 PM

Lab ID: 1310125-004

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 9:59:41 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 9:59:41 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 9:59:41 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 9:59:41 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: MW-2

Project: ATEX 213

Collection Date: 10/1/2013 1:45:00 PM

Lab ID: 1310125-004

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 9:59:41 PM	R13818
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 9:59:41 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 9:59:41 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 9:59:41 PM	R13818
Surr: 1,2-Dichloroethane-d4	90.5	70-130		%REC	1	10/3/2013 9:59:41 PM	R13818
Surr: 4-Bromofluorobenzene	98.4	70-130		%REC	1	10/3/2013 9:59:41 PM	R13818
Surr: Dibromofluoromethane	93.1	70-130		%REC	1	10/3/2013 9:59:41 PM	R13818
Surr: Toluene-d8	97.6	70-130		%REC	1	10/3/2013 9:59:41 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

**CLIENT:** EA Engineering, Science and Technology

**Client Sample ID:** MW-38

**Project:** ATEX 213

**Collection Date:** 10/1/2013 1:24:00 PM

**Lab ID:** 1310125-005

**Matrix:** AQUEOUS

**Received Date:** 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 10:28:57 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 10:28:57 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 10:28:57 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 10:28:57 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: MW-38

Project: ATEX 213

Collection Date: 10/1/2013 1:24:00 PM

Lab ID: 1310125-005

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 10:28:57 PM	R13818
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 10:28:57 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 10:28:57 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 10:28:57 PM	R13818
Surr: 1,2-Dichloroethane-d4	96.2	70-130		%REC	1	10/3/2013 10:28:57 PM	R13818
Surr: 4-Bromofluorobenzene	93.7	70-130		%REC	1	10/3/2013 10:28:57 PM	R13818
Surr: Dibromofluoromethane	92.5	70-130		%REC	1	10/3/2013 10:28:57 PM	R13818
Surr: Toluene-d8	95.7	70-130		%REC	1	10/3/2013 10:28:57 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: BB-2

Project: ATEX 213

Collection Date: 10/1/2013 2:20:00 PM

Lab ID: 1310125-006

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
Benzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Methyl tert-butyl ether (MTBE)	53	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 10:57:37 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 10:57:37 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 10:57:37 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 10:57:37 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	



# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: BB-2

Project: ATEX 213

Collection Date: 10/1/2013 2:20:00 PM

Lab ID: 1310125-006

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 10:57:37 PM	R13818
Isopropylbenzene	2.1	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 10:57:37 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
n-Propylbenzene	7.1	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
sec-Butylbenzene	2.3	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 10:57:37 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 10:57:37 PM	R13818
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%REC	1	10/3/2013 10:57:37 PM	R13818
Surr: 4-Bromofluorobenzene	93.6	70-130		%REC	1	10/3/2013 10:57:37 PM	R13818
Surr: Dibromofluoromethane	90.6	70-130		%REC	1	10/3/2013 10:57:37 PM	R13818
Surr: Toluene-d8	95.7	70-130		%REC	1	10/3/2013 10:57:37 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

**CLIENT:** EA Engineering, Science and Technology

**Client Sample ID:** NMW-4

**Project:** ATEX 213

**Collection Date:** 10/1/2013 12:35:00 PM

**Lab ID:** 1310125-007

**Matrix:** AQUEOUS

**Received Date:** 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 11:26:16 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 11:26:16 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 11:26:16 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 11:26:16 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: NMW-4

Project: ATEX 213

Collection Date: 10/1/2013 12:35:00 PM

Lab ID: 1310125-007

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 11:26:16 PM	R13818
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 11:26:16 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 11:26:16 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 11:26:16 PM	R13818
Surr: 1,2-Dichloroethane-d4	93.3	70-130		%REC	1	10/3/2013 11:26:16 PM	R13818
Surr: 4-Bromofluorobenzene	97.5	70-130		%REC	1	10/3/2013 11:26:16 PM	R13818
Surr: Dibromofluoromethane	93.1	70-130		%REC	1	10/3/2013 11:26:16 PM	R13818
Surr: Toluene-d8	97.5	70-130		%REC	1	10/3/2013 11:26:16 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: RNMW-2

Project: ATEX 213

Collection Date: 10/1/2013 3:05:00 PM

Lab ID: 1310125-008

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
Benzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Methyl tert-butyl ether (MTBE)	61	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 11:55:02 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 11:55:02 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 11:55:02 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 11:55:02 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: RNMW-2

Project: ATEX 213

Collection Date: 10/1/2013 3:05:00 PM

Lab ID: 1310125-008

Matrix: AQUEOUS

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 11:55:02 PM	R13818
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 11:55:02 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 11:55:02 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 11:55:02 PM	R13818
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%REC	1	10/3/2013 11:55:02 PM	R13818
Surr: 4-Bromofluorobenzene	93.5	70-130		%REC	1	10/3/2013 11:55:02 PM	R13818
Surr: Dibromofluoromethane	90.8	70-130		%REC	1	10/3/2013 11:55:02 PM	R13818
Surr: Toluene-d8	97.1	70-130		%REC	1	10/3/2013 11:55:02 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:		
*	Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
E	Value above quantitation range	H Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

**CLIENT:** EA Engineering, Science and Technology

**Client Sample ID:** Trip Blank

**Project:** ATEX 213

**Collection Date:**

**Lab ID:** 1310125-009

**Matrix:** TRIP BLANK

**Received Date:** 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>JMP</b>
Benzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Toluene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Ethylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Naphthalene	ND	2.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
2-Methylnaphthalene	ND	4.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Acetone	ND	10		µg/L	1	10/3/2013 4:43:02 PM	R13818
Bromobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Bromodichloromethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Bromoform	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Bromomethane	ND	3.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
2-Butanone	ND	10		µg/L	1	10/3/2013 4:43:02 PM	R13818
Carbon disulfide	ND	10		µg/L	1	10/3/2013 4:43:02 PM	R13818
Carbon Tetrachloride	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Chlorobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Chloroethane	ND	2.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Chloroform	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Chloromethane	ND	3.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
2-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
4-Chlorotoluene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
cis-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Dibromochloromethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Dibromomethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,3-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,4-Dichlorobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Dichlorodifluoromethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,1-Dichloroethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,1-Dichloroethene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,3-Dichloropropane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
2,2-Dichloropropane	ND	2.0		µg/L	1	10/3/2013 4:43:02 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

<b>Qualifiers:</b>	* Value exceeds Maximum Contaminant Level.	B Analyte detected in the associated Method Blank
	E Value above quantitation range	H Holding times for preparation or analysis exceeded
	J Analyte detected below quantitation limits	ND Not Detected at the Reporting Limit
	O RSD is greater than RSDlimit	P Sample pH greater than 2 for VOA and TOC only.
	R RPD outside accepted recovery limits	RL Reporting Detection Limit
	S Spike Recovery outside accepted recovery limits	



# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1310125

Date Reported: 10/7/2013

CLIENT: EA Engineering, Science and Technology

Client Sample ID: Trip Blank

Project: ATEX 213

Collection Date:

Lab ID: 1310125-009

Matrix: TRIP BLANK

Received Date: 10/2/2013 9:29:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: JMP
1,1-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Hexachlorobutadiene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
2-Hexanone	ND	10		µg/L	1	10/3/2013 4:43:02 PM	R13818
Isopropylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
4-Isopropyltoluene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
4-Methyl-2-pentanone	ND	10		µg/L	1	10/3/2013 4:43:02 PM	R13818
Methylene Chloride	ND	3.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
n-Butylbenzene	ND	3.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
n-Propylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
sec-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Styrene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
tert-Butylbenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
trans-1,2-DCE	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,1,1-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,1,2-Trichloroethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Trichloroethene (TCE)	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Trichlorofluoromethane	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
1,2,3-Trichloropropane	ND	2.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Vinyl chloride	ND	1.0		µg/L	1	10/3/2013 4:43:02 PM	R13818
Xylenes, Total	ND	1.5		µg/L	1	10/3/2013 4:43:02 PM	R13818
Surr: 1,2-Dichloroethane-d4	94.6	70-130		%REC	1	10/3/2013 4:43:02 PM	R13818
Surr: 4-Bromofluorobenzene	93.3	70-130		%REC	1	10/3/2013 4:43:02 PM	R13818
Surr: Dibromofluoromethane	96.6	70-130		%REC	1	10/3/2013 4:43:02 PM	R13818
Surr: Toluene-d8	96.3	70-130		%REC	1	10/3/2013 4:43:02 PM	R13818

Refer to the QC Summary report and sample login checklist for flagged QC data and preservation information.

Qualifiers:			
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
E	Value above quantitation range	H	Holding times for preparation or analysis exceeded
J	Analyte detected below quantitation limits	ND	Not Detected at the Reporting Limit
O	RSD is greater than RSDlimit	P	Sample pH greater than 2 for VOA and TOC only.
R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
S	Spike Recovery outside accepted recovery limits		

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1310125

07-Oct-13

**Client:** EA Engineering, Science and Technology**Project:** ATEX 213

Sample ID: 5mL rb	SampType: MBLK	TestCode: EPA Method 8260B: VOLATILES								
Client ID: PBW	Batch ID: R13818	RunNo: 13818								
Prep Date:	Analysis Date: 10/3/2013	SeqNo: 394826	Units: µg/L							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
1,2-Dichloroethane (EDC)	ND	1.0								
1,2-Dibromoethane (EDB)	ND	1.0								
Naphthalene	ND	2.0								
1-Methylnaphthalene	ND	4.0								
2-Methylnaphthalene	ND	4.0								
Acetone	ND	10								
Bromobenzene	ND	1.0								
Bromodichloromethane	ND	1.0								
Bromoform	ND	1.0								
Bromomethane	ND	3.0								
2-Butanone	ND	10								
Carbon disulfide	ND	10								
Carbon Tetrachloride	ND	1.0								
Chlorobenzene	ND	1.0								
Chloroethane	ND	2.0								
Chloroform	ND	1.0								
Chloromethane	ND	3.0								
2-Chlorotoluene	ND	1.0								
4-Chlorotoluene	ND	1.0								
cis-1,2-DCE	ND	1.0								
cis-1,3-Dichloropropene	ND	1.0								
1,2-Dibromo-3-chloropropane	ND	2.0								
Dibromochloromethane	ND	1.0								
Dibromomethane	ND	1.0								
1,2-Dichlorobenzene	ND	1.0								
1,3-Dichlorobenzene	ND	1.0								
1,4-Dichlorobenzene	ND	1.0								
Dichlorodifluoromethane	ND	1.0								
1,1-Dichloroethane	ND	1.0								
1,1-Dichloroethene	ND	1.0								
1,2-Dichloropropane	ND	1.0								
1,3-Dichloropropane	ND	1.0								
2,2-Dichloropropane	ND	2.0								

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.

E Value above quantitation range

J Analyte detected below quantitation limits

O RSD is greater than RSDlimit

R RPD outside accepted recovery limits

S Spike Recovery outside accepted recovery limits

B Analyte detected in the associated Method Blank

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

P Sample pH greater than 2 for VOA and TOC only.

RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1310125

07-Oct-13

**Client:** EA Engineering, Science and Technology

**Project:** ATEX 213

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: <b>5mL rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R13818</b>		RunNo: <b>13818</b>							
Prep Date:	Analysis Date: <b>10/3/2013</b>		SeqNo: <b>394826</b>		Units: <b>µg/L</b>					
1,1-Dichloropropene	ND	1.0								
Hexachlorobutadiene	ND	1.0								
2-Hexanone	ND	10								
Isopropylbenzene	ND	1.0								
4-Isopropyltoluene	ND	1.0								
4-Methyl-2-pentanone	ND	10								
Methylene Chloride	ND	3.0								
n-Butylbenzene	ND	3.0								
n-Propylbenzene	ND	1.0								
sec-Butylbenzene	ND	1.0								
Styrene	ND	1.0								
tert-Butylbenzene	ND	1.0								
1,1,1,2-Tetrachloroethane	ND	1.0								
1,1,2,2-Tetrachloroethane	ND	2.0								
Tetrachloroethene (PCE)	ND	1.0								
trans-1,2-DCE	ND	1.0								
trans-1,3-Dichloropropene	ND	1.0								
1,2,3-Trichlorobenzene	ND	1.0								
1,2,4-Trichlorobenzene	ND	1.0								
1,1,1-Trichloroethane	ND	1.0								
1,1,2-Trichloroethane	ND	1.0								
Trichloroethene (TCE)	ND	1.0								
Trichlorofluoromethane	ND	1.0								
1,2,3-Trichloropropane	ND	2.0								
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.4	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.6	70	130			
Surr: Dibromofluoromethane	9.7		10.00		97.2	70	130			
Surr: Toluene-d8	9.7		10.00		97.0	70	130			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R13818</b>		RunNo: <b>13818</b>							
Prep Date:	Analysis Date: <b>10/3/2013</b>		SeqNo: <b>394828</b>		Units: <b>µg/L</b>					
Benzene	18	1.0	20.00	0	89.2	70	130			
Toluene	19	1.0	20.00	0	92.6	82.2	124			
Chlorobenzene	18	1.0	20.00	0	89.2	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1310125

07-Oct-13

**Client:** EA Engineering, Science and Technology

**Project:** ATEX 213

Sample ID: <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R13818</b>		RunNo: <b>13818</b>							
Prep Date:	Analysis Date: <b>10/3/2013</b>		SeqNo: <b>394828</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20	1.0	20.00	0	100	83.5	155			
Trichloroethene (TCE)	17	1.0	20.00	0	86.5	70	130			
Surr: 1,2-Dichloroethane-d4	9.2		10.00		92.4	70	130			
Surr: 4-Bromofluorobenzene	9.7		10.00		97.5	70	130			
Surr: Dibromofluoromethane	9.6		10.00		95.6	70	130			
Surr: Toluene-d8	9.5		10.00		94.8	70	130			

Sample ID: <b>1310125-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>RNMW-3</b>	Batch ID: <b>R13818</b>		RunNo: <b>13818</b>							
Prep Date:	Analysis Date: <b>10/3/2013</b>		SeqNo: <b>394839</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	1.246	82.0	67.9	137			
Toluene	19	1.0	20.00	0	92.9	77	127			
Chlorobenzene	18	1.0	20.00	0	90.3	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	97.4	66.5	131			
Trichloroethene (TCE)	16	1.0	20.00	0	82.3	66.3	134			
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.4	70	130			
Surr: 4-Bromofluorobenzene	9.2		10.00		91.6	70	130			
Surr: Dibromofluoromethane	9.3		10.00		93.4	70	130			
Surr: Toluene-d8	9.6		10.00		96.5	70	130			

Sample ID: <b>1310125-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>RNMW-3</b>	Batch ID: <b>R13818</b>		RunNo: <b>13818</b>							
Prep Date:	Analysis Date: <b>10/3/2013</b>		SeqNo: <b>394840</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	1.246	82.1	67.9	137	0.170	20	
Toluene	18	1.0	20.00	0	90.9	77	127	2.18	20	
Chlorobenzene	17	1.0	20.00	0	87.3	70	130	3.38	20	
1,1-Dichloroethene	19	1.0	20.00	0	92.6	66.5	131	5.06	20	
Trichloroethene (TCE)	15	1.0	20.00	0	77.2	66.3	134	6.39	20	
Surr: 1,2-Dichloroethane-d4	9.6		10.00		96.4	70	130	0	0	
Surr: 4-Bromofluorobenzene	9.2		10.00		92.4	70	130	0	0	
Surr: Dibromofluoromethane	9.5		10.00		95.0	70	130	0	0	
Surr: Toluene-d8	9.7		10.00		97.2	70	130	0	0	

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- E Value above quantitation range
- J Analyte detected below quantitation limits
- O RSD is greater than RSDlimit
- R RPD outside accepted recovery limits
- S Spike Recovery outside accepted recovery limits
- B Analyte detected in the associated Method Blank
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- P Sample pH greater than 2 for VOA and TOC only.
- RL Reporting Detection Limit

**Sample Log-In Check List**

Client Name: EA Engineering Alb

Work Order Number: 1310125

RcptNo: 1

Received by/date: LM 10/02/13

Logged By: **Michelle Garcia** 10/2/2013 9:29:00 AM *Michelle Garcia*

Completed By: **Michelle Garcia** 10/2/2013 2:44:10 PM *Michelle Garcia*

Reviewed By: *Ashley d 10/4*

**Chain of Custody**

- 1. Custody seals intact on sample bottles? Yes  No  Not Present
- 2. Is Chain of Custody complete? Yes  No  Not Present
- 3. How was the sample delivered? Client

**Log In**

- 4. Was an attempt made to cool the samples? Yes  No  NA
- 5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA
- 6. Sample(s) in proper container(s)? Yes  No
- 7. Sufficient sample volume for indicated test(s)? Yes  No
- 8. Are samples (except VOA and ONG) properly preserved? Yes  No
- 9. Was preservative added to bottles? Yes  No  NA
- 10. VOA vials have zero headspace? Yes  No  No VOA Vials
- 11. Were any sample containers received broken? Yes  No
- 12. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes  No
- 13. Are matrices correctly identified on Chain of Custody? Yes  No
- 14. Is it clear what analyses were requested? Yes  No
- 15. Were all holding times able to be met? (If no, notify customer for authorization.) Yes  No

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: \_\_\_\_\_

**Special Handling (if applicable)**

- 16. Was client notified of all discrepancies with this order? Yes  No  NA

Person Notified: \_\_\_\_\_ Date: \_\_\_\_\_  
 By Whom: \_\_\_\_\_ Via:  eMail  Phone  Fax  In Person  
 Regarding: \_\_\_\_\_  
 Client Instructions: \_\_\_\_\_

17. Additional remarks:

**18. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.5	Good	Not Present			

**Chain-of-Custody Record**

Client: EA Engineering, Science and Tech  
 Mailing Address: 320 Gold Ave  
Swo Suite 1210  
 Phone #: 505-724-9013  
 email or Fax#: 505-224-9010

QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation  
 NELAP  Other \_\_\_\_\_  
 EDD (Type) \_\_\_\_\_

UNITS: MILLIGRAMS PER LITER

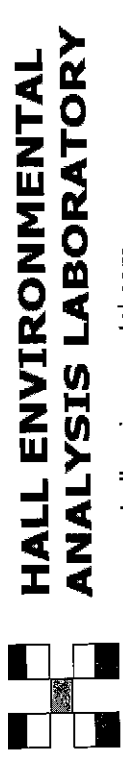
Standard  Rush  
 Project Name: \_\_\_\_\_

Project #: ATEX 213  
0250106.04  
 Project Manager: \_\_\_\_\_

Sampler: Gary Dessel  
A. Candelaria  
 On Ice:  Yes  No  
 Sample Temperature: 4.5

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No.
10-1-13	1445	G-W	RNMW-3	VOA 3	HgCl2	13/0125 -001
10-1-13	1530	G-W	NMW-1	VOA 3	HgCl2	-002
10-1-13	1305	G-W	MW-29	VOA 3	HgCl2	-003
10-1-13	1345	G-W	MW-2	VOA 3	HgCl2	-004
10-1-13	1324	G-W	MW-38	VOA 3	HgCl2	-005
10-1-13	1420	G-W	BB-2	VOA 3	HgCl2	-006
10-1-13	1235	G-W	NMW-4	VOA 3	HgCl2	-007
10-1-13	1505	G-W	RNMW-7	VOA 3	HgCl2	-008
		<del>Blank</del> Trip Blank				-009
		REF. MATERIAL				

Date: 10-2-13 Time: 0929 Relinquished by: [Signature]  
 Date: 10-2-13 Time: 0929 Relinquished by: [Signature]



**HALL ENVIRONMENTAL ANALYSIS LABORATORY**  
 www.hallenvironmental.com  
 4901 Hawkins NE - Albuquerque, NM 87109  
 Tel. 505-345-3975 Fax 505-345-4107

**Analysis Request**

BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions (F, Cl, NO3, NO2, PO4, SO4)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
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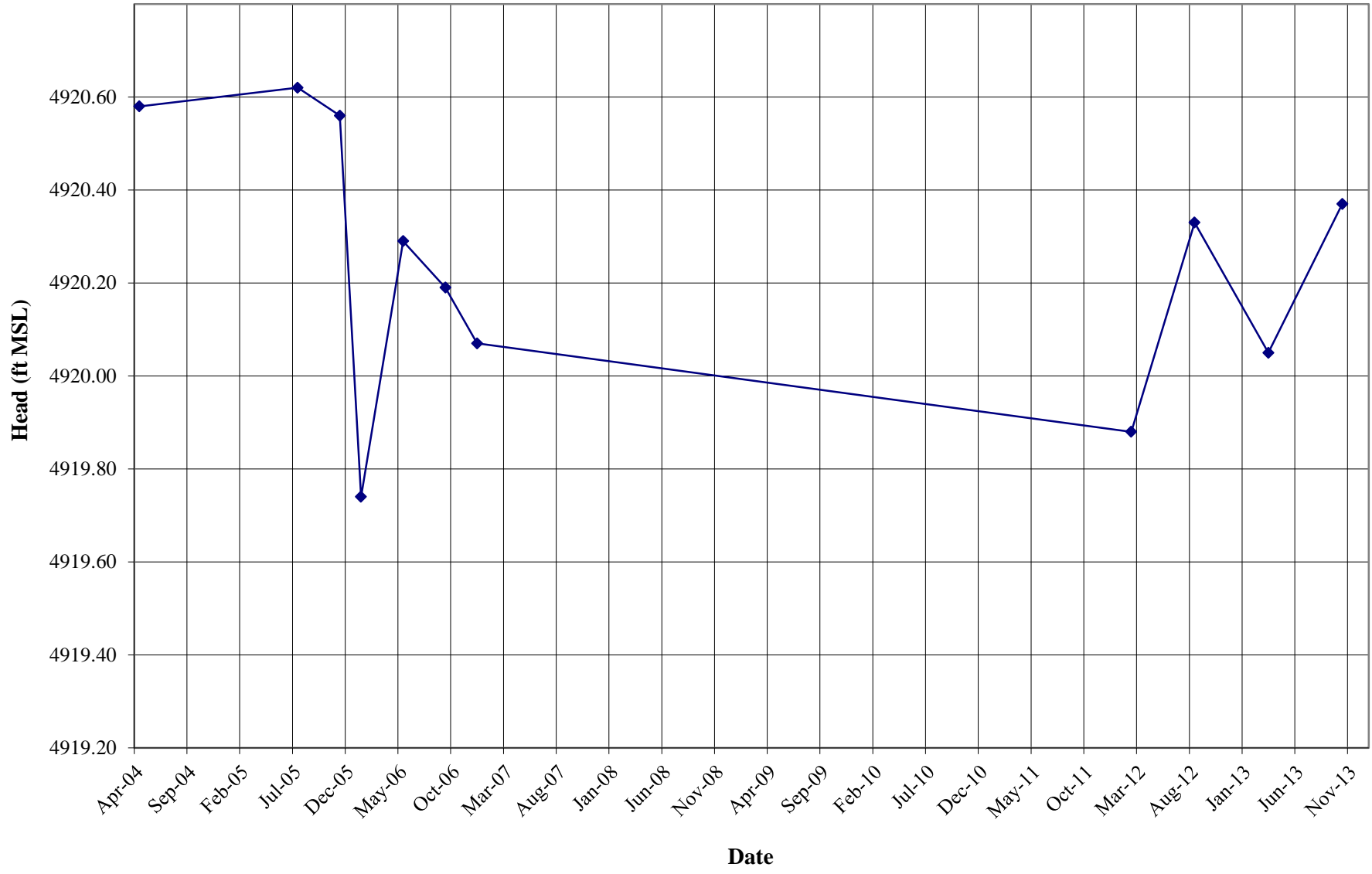
Received by: [Signature] Date: 10/2/13 Time: 0929  
 Received by: [Signature] Date: 10/2/13 Time: 0929

If necessary, samples submitted to Hall Environmental may be subcontracted to other accredited laboratories. This serves as notice of this possibility. Any sub-contracted data will be clearly notated on the analytical report.

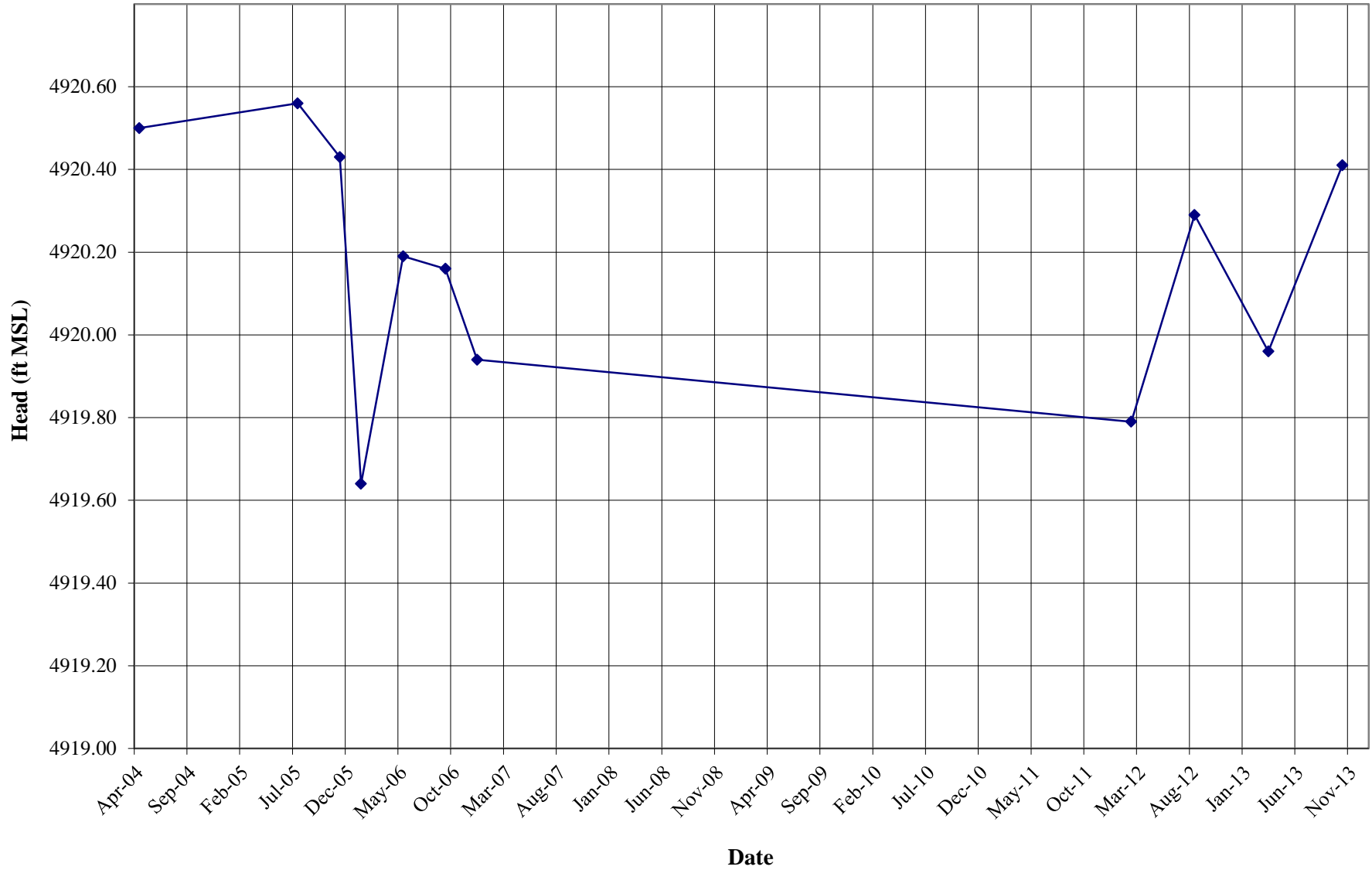


**APPENDIX C  
HYDROGRAPHS**

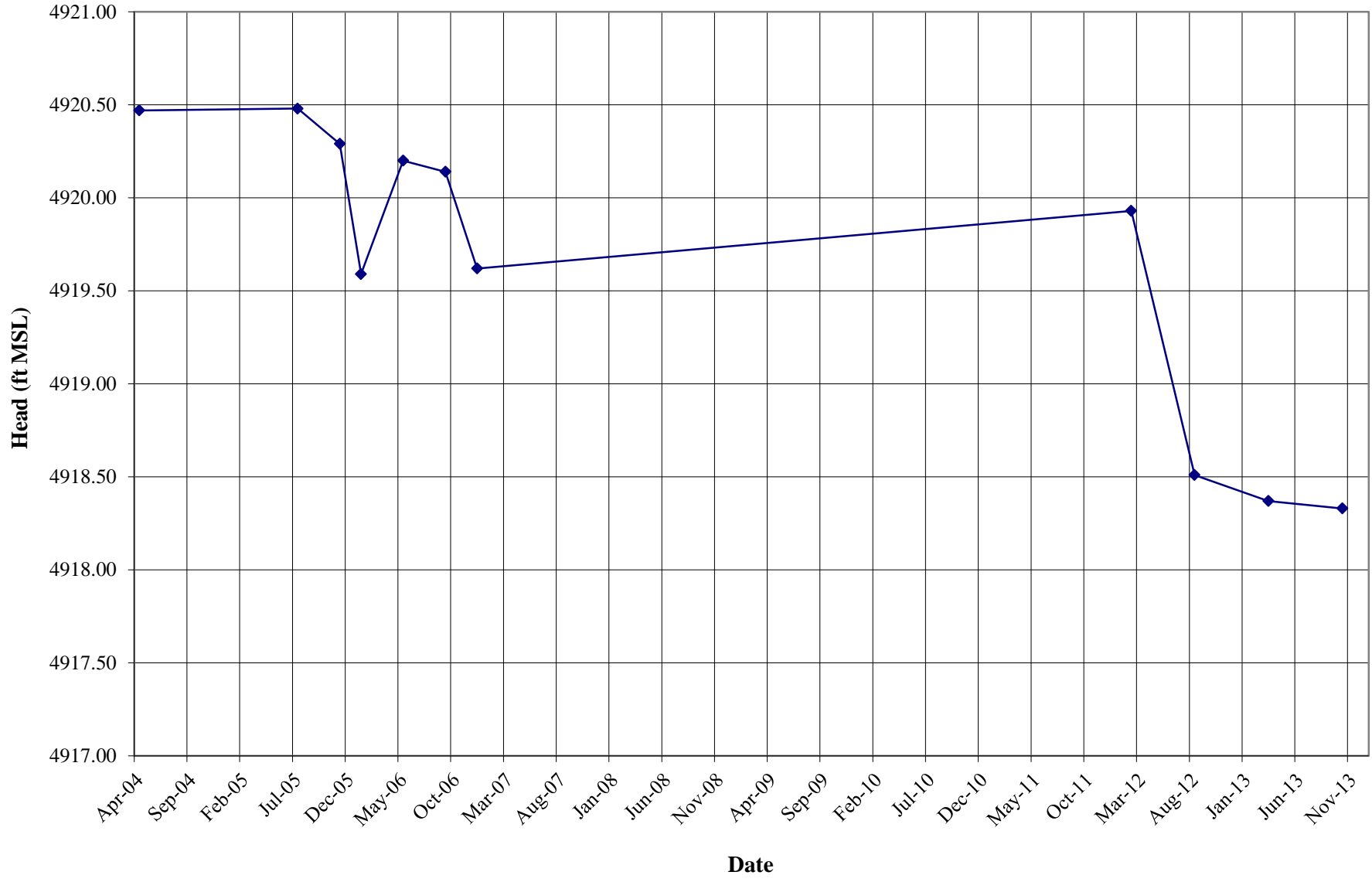
# HYDROGRAPH FOR WELL MW-2



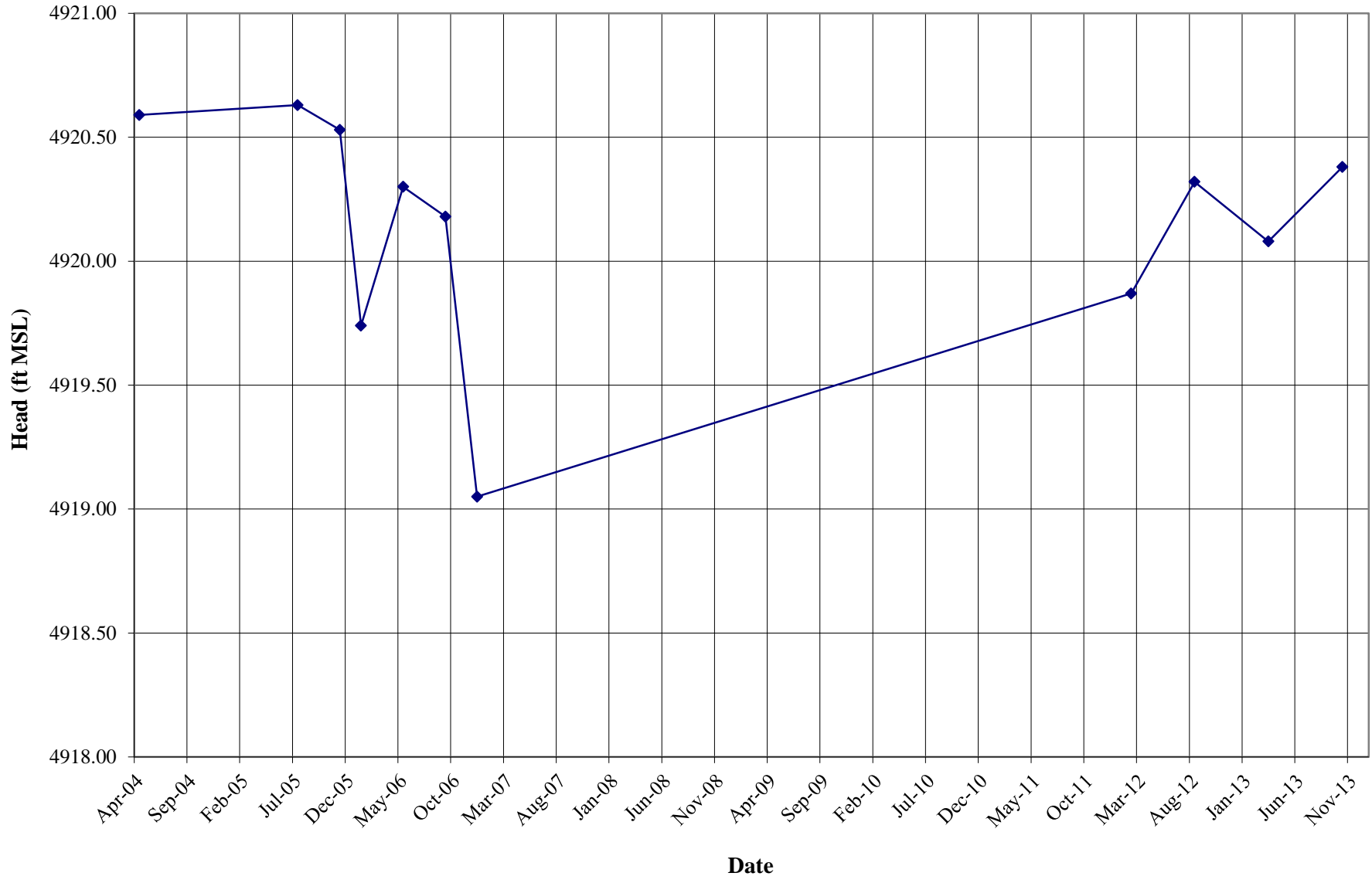
### HYDROGRAPH FOR WELL MW-3



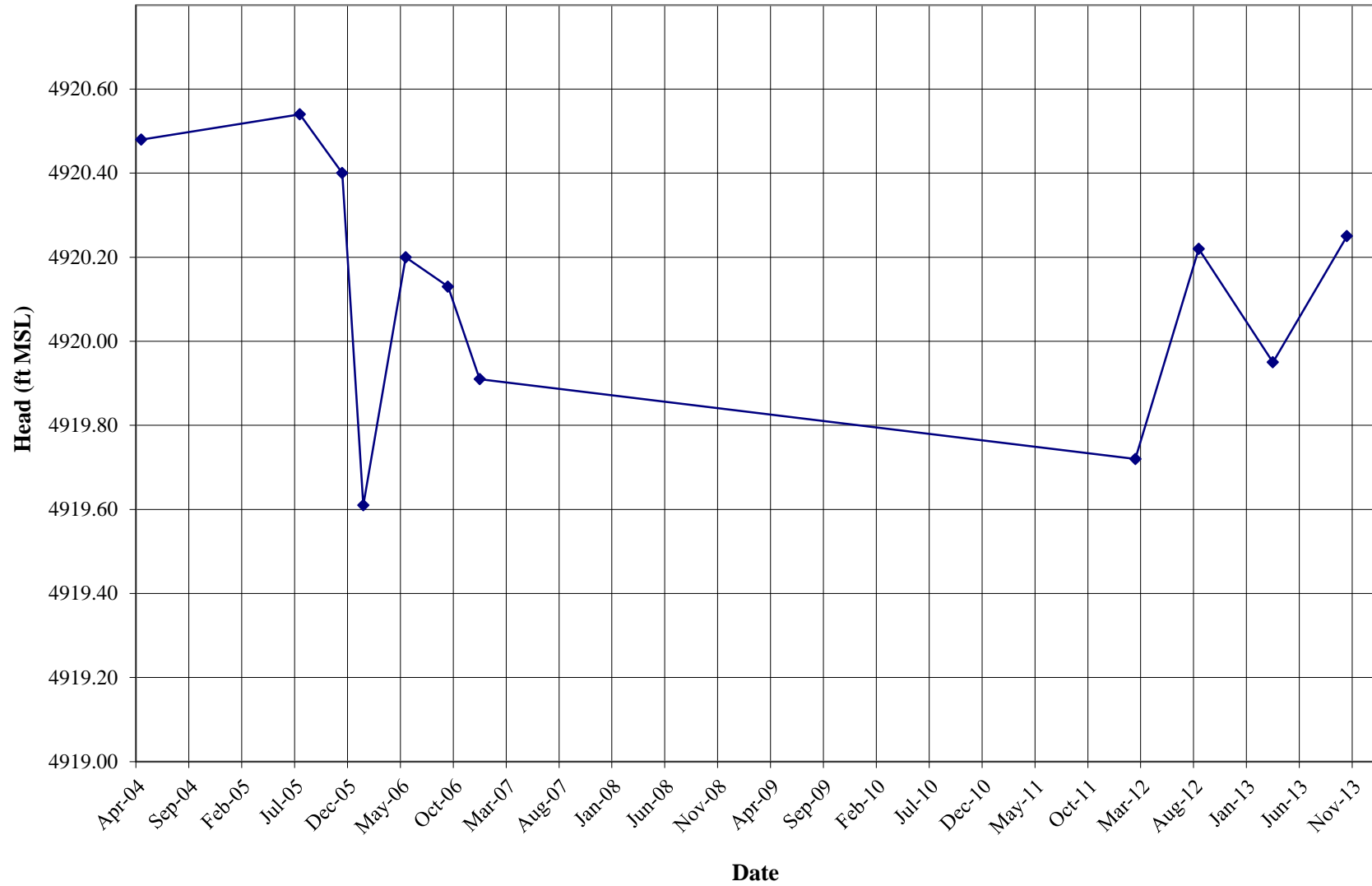
# HYDROGRAPH FOR WELL MW-6



# HYDROGRAPH FOR WELL MW-29

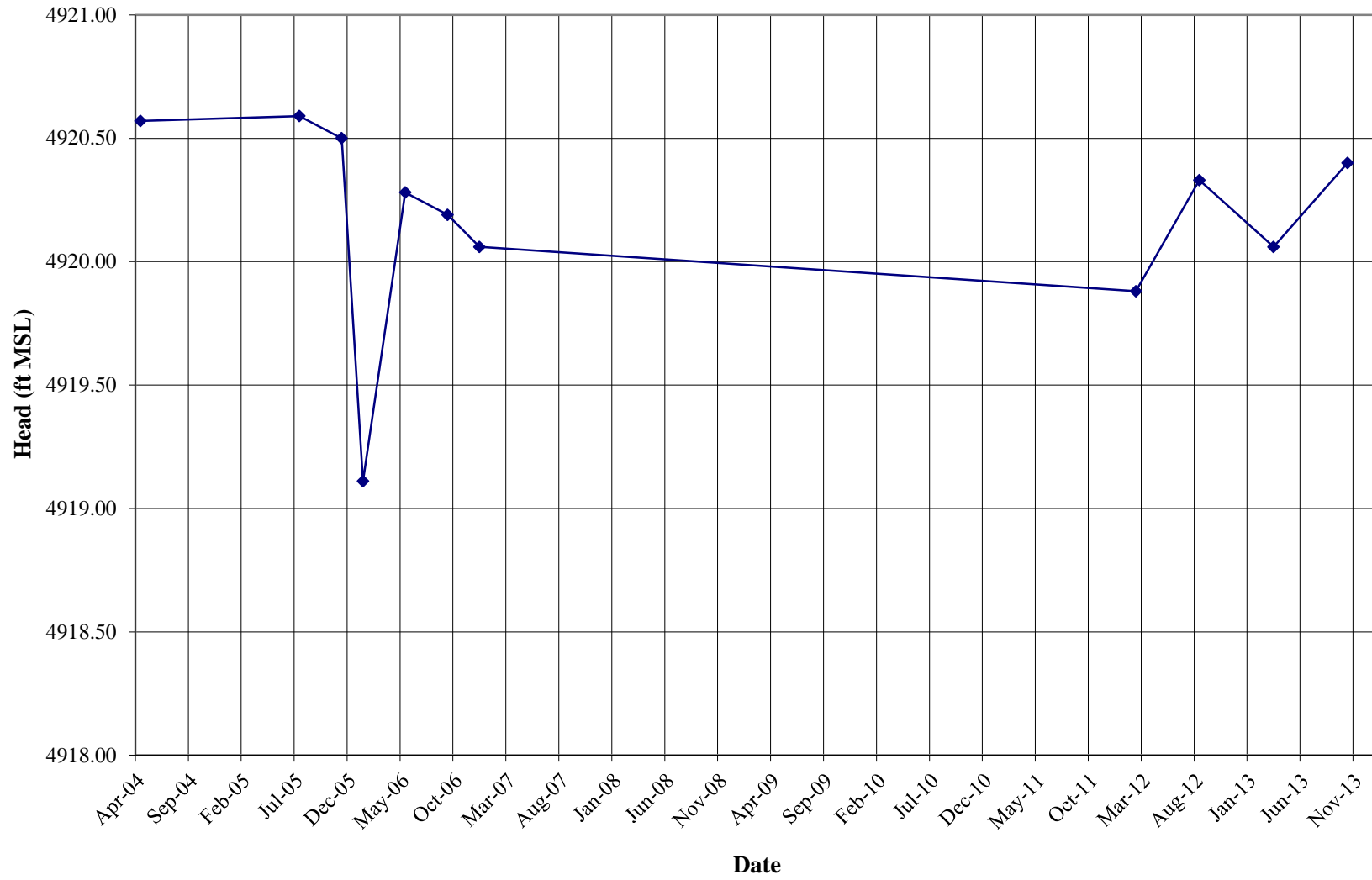


### HYDROGRAPH FOR WELL MW-38

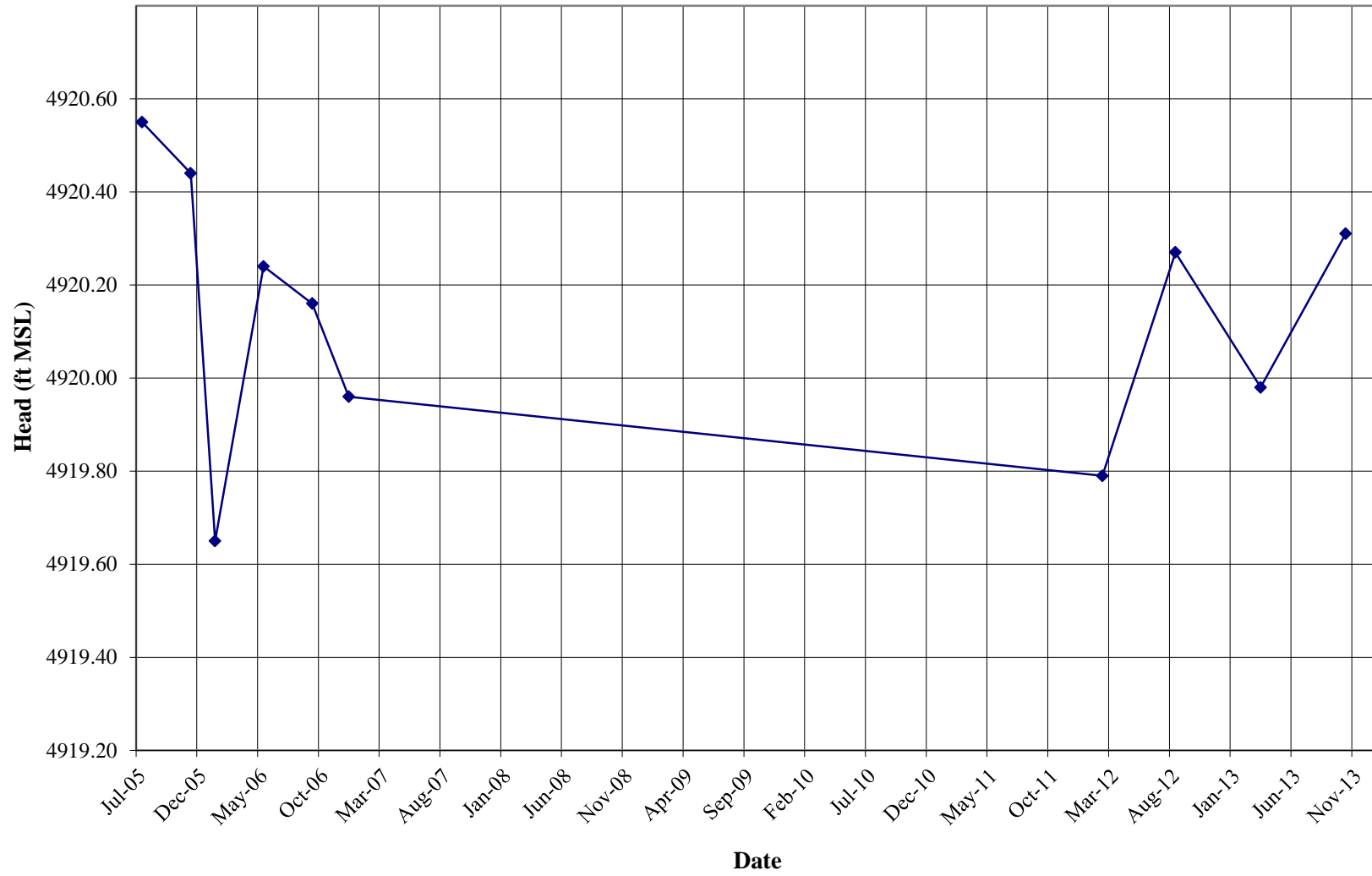




### HYDROGRAPH FOR WELL NMW-1



# HYDROGRAPH FOR WELL RNMW-2

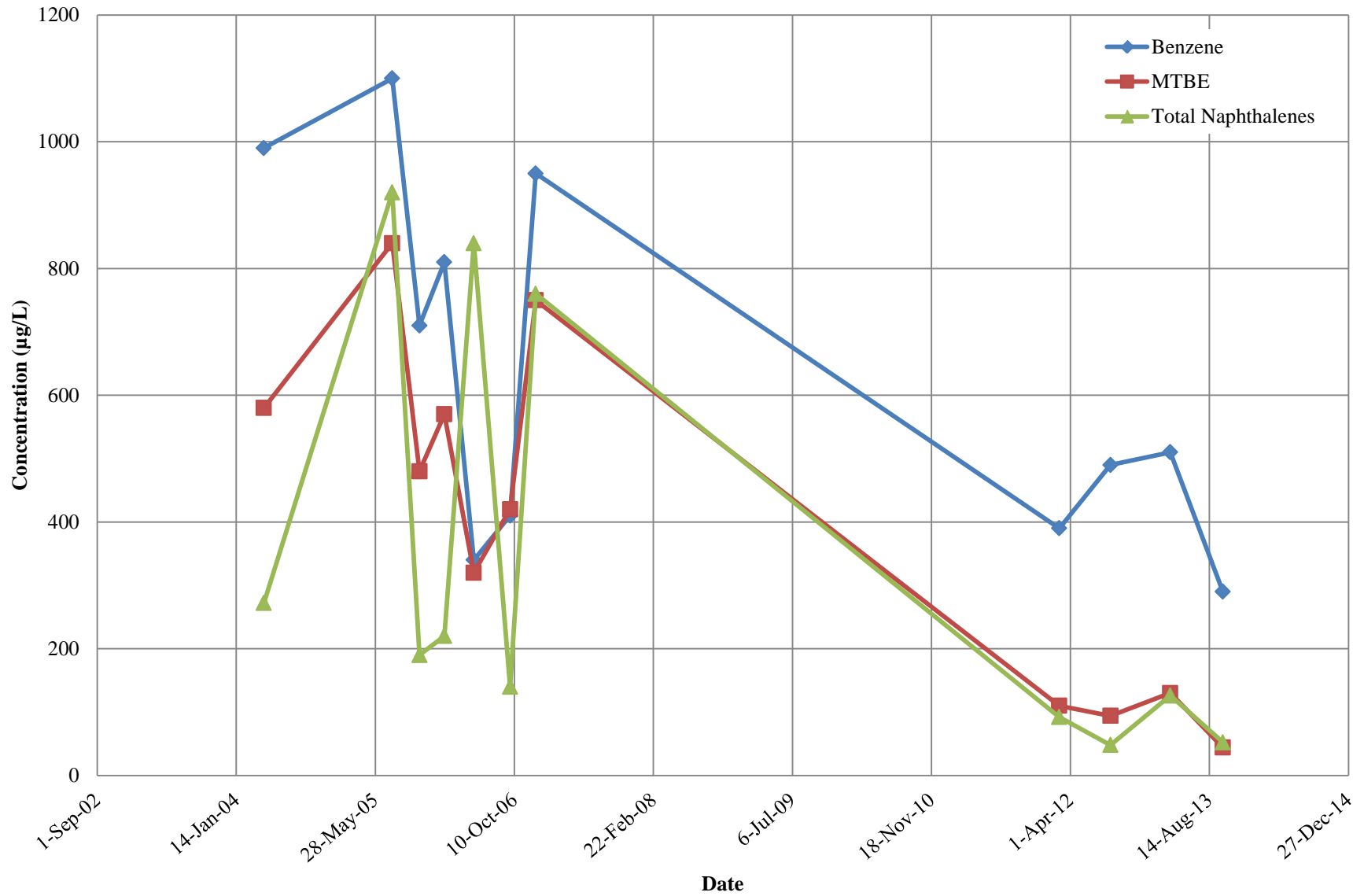


### HYDROGRAPH FOR WELL RNMW-3

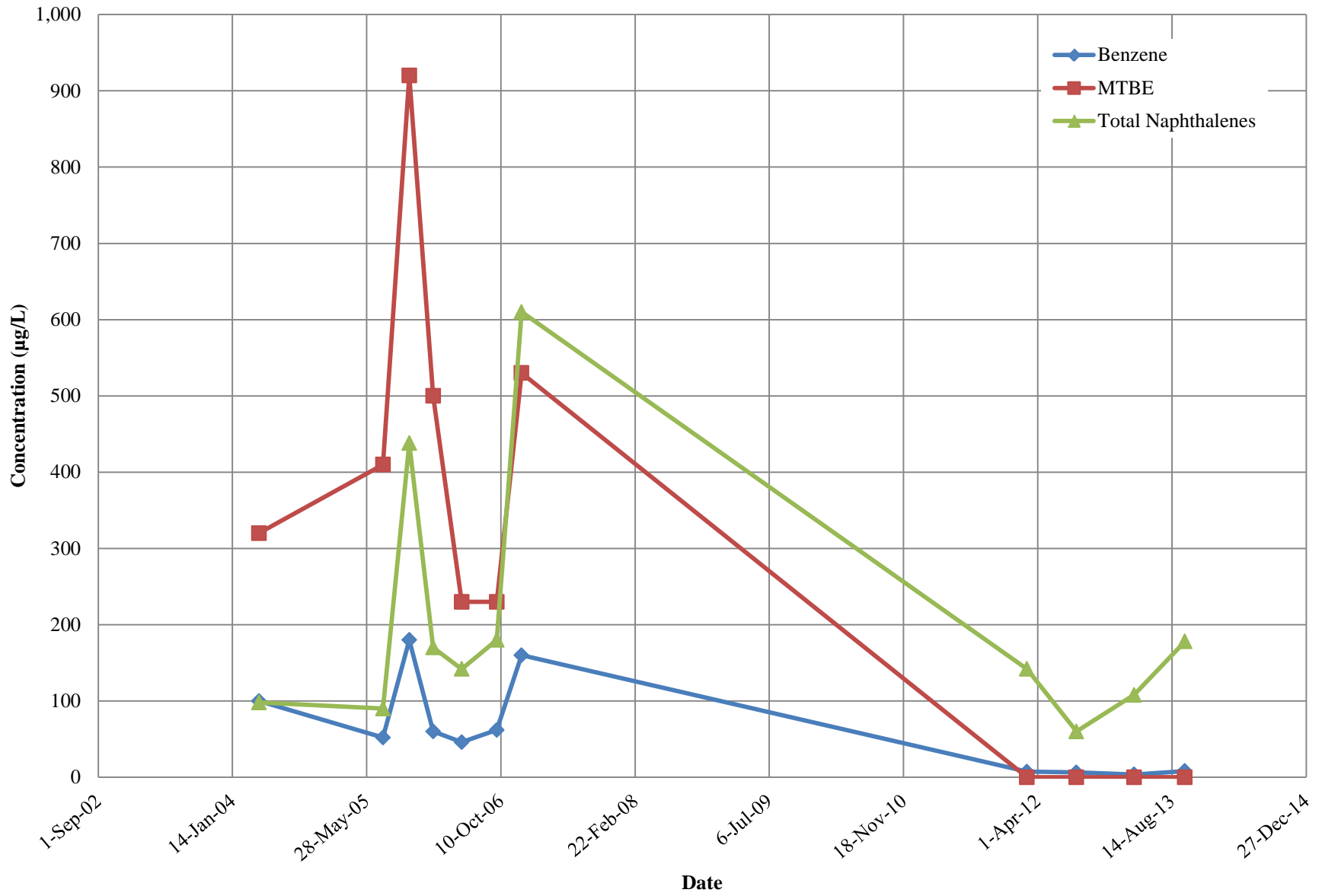


**APPENDIX D  
CONCENTRATION TREND GRAPHS**

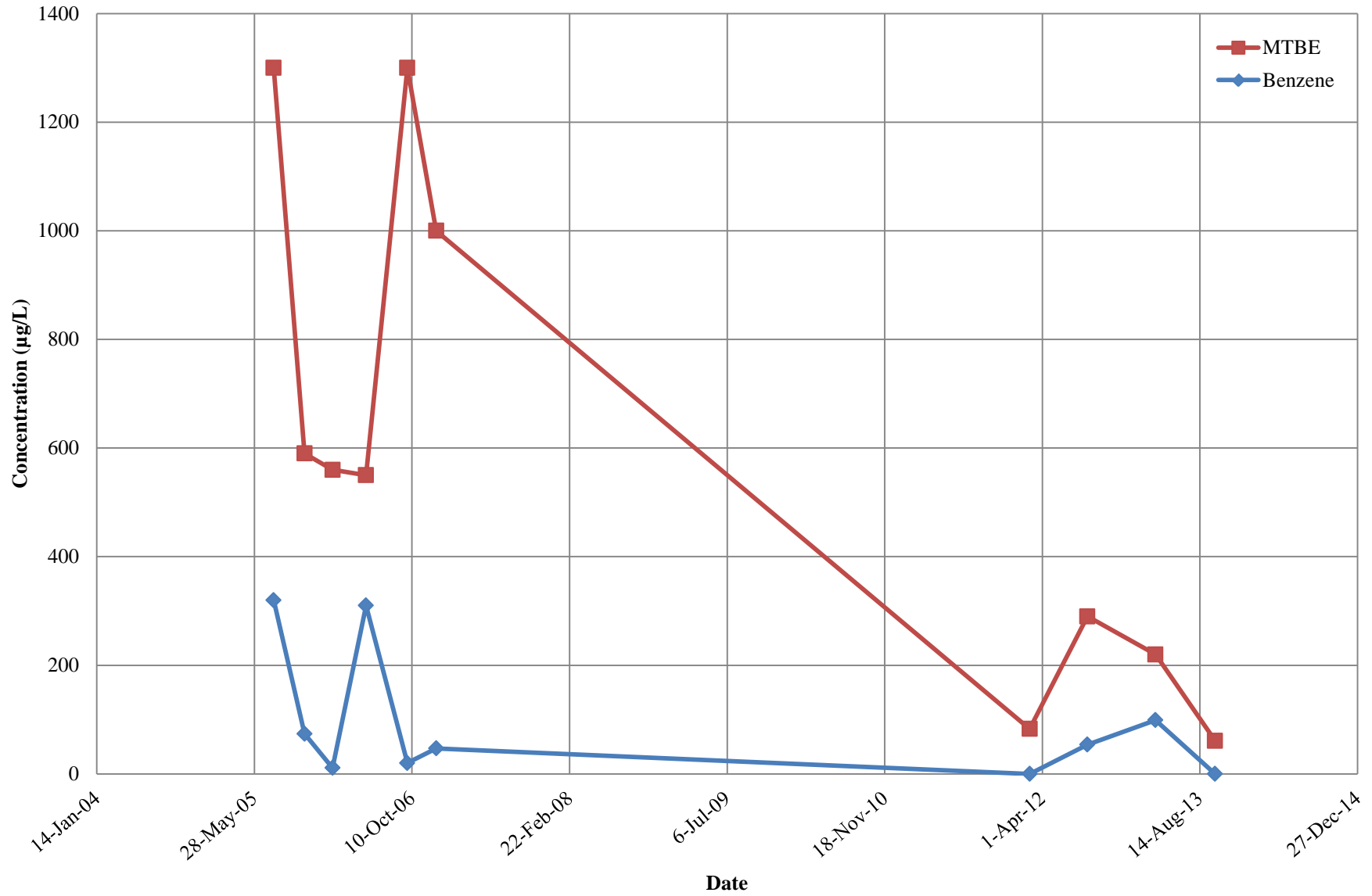
# CONCENTRATION TRENDS IN NMW-1



# CONCENTRATION TRENDS IN MW-3



# CONCENTRATION TRENDS IN RNMW-2





# CONCENTRATION TRENDS IN RNMW-3

