



**GROUNDWATER MONITORING,  
& NAPL RECOVERY REPORT  
FAIRVIEW STATION  
PSTB FACILITY #28779  
1626 NORTH RIVERSIDE DRIVE  
ESPAÑOLA, NEW MEXICO**

Prepared by:

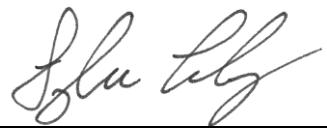
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September 2017

### **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: Tyler Curley  
Affiliation: EA Engineering, Science, and Technology, Inc., PBC  
Title: Project Manager  
Date: September 14, 2017

## I. INTRODUCTION

EA Engineering, Science, and Technology, Inc., PBC (EA) has completed the groundwater monitoring and NAPL recovery event at Fairview Station (Site) located in Espanola, New Mexico. The groundwater monitoring and NAPL recovery event was completed under state-lead contract #14-667-2000-0030 and in accordance with the *Work Plan for, Groundwater Monitoring and NAPL Recovery, Fairview Station, Espanola, New Mexico* prepared by EA to satisfy the requirements stated in the New Mexico Administrative Code, Title 20, Chapter 5, Section 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 June 22, 2017 under work plan identification number (WPID# 3909). This is the first deliverable under WPID #3909-1.

The Site is located at 1626 North Riverside Drive, Espanola, New Mexico (Figure 1). The site operated as a gasoline service station from the 1970s until the underground storage tanks (USTs) were removed in July 2012. The Site was temporarily closed from December 1988 to August 1989 due to a UST system replacement. After the original UST system was removed in December 1988, no release was reported. In July 2012, three USTs, associated piping, and dispensers were removed; field observations indicated a release had occurred. On August 6, 2012, the NMED issued a confirmed release letter to the property owner, Mr. José C. Roybal. Since then, field activities have been conducted including the installation of 21 groundwater monitoring wells, groundwater sampling, and NAPL recovery. On April 28, 2015, NMED designated the Site as State Lead Status. The Site is located south of a second possible release site which currently is occupied by a Dairy Queen, and the NAPL and dissolved phase plumes may be comingled.

During this monitoring event the following was completed:

- Groundwater samples were collected from ten monitoring wells (MW-4, MW-5, MW-6 MW-7, MW-13, MW-16, MW-17, MW-19, MW-20, and MW-21).
- NAPL was hand bailed from wells MW-8.
- Passive skimmers were emptied in wells MW-1, MW-2, and MW-3. The remaining NAPL in the wells was hand bailed before reinstalling the skimmers.
- Absorbent socks were replaced in wells MW-6, MW-9, MW-10, MW-11, MW-14, MW-15, and MW-18 after hand bailing NAPL. MW-6 contained no NAPL so it was sampled.

This report summarizes the results of the groundwater monitoring and NAPL recovery event.

## **II. ACTIVITIES PERFORMED DURING THIS EVENT**

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 recent corrective action activities conducted at the Site follows:

- July 2012, UST system removed from Site;
- August 6, 2012, confirmed release letter issued;
- March 12, 2013, Terracon submitted Minimum Site Assessment (MSA) Report to NMED;
- December 23, 2013, Terracon submitted Addendum MSA Report to NMED;
- October 13, 2014, Terracon submitted a second Addendum MSA Report to NMED;
- January 19, 2015, Terracon submitted Groundwater Monitoring Report to NMED;
- April 28, 2015, NMED designated the Site as State Lead Status;
- October 13, 2015, NMED approves EA's work plan to conduct groundwater monitoring and NAPL recovery;
- January 2016, EA conducted groundwater monitoring and NAPL recovery at the Site;
- July 2016, EA installed seven additional monitoring wells, conducted groundwater monitoring and NAPL recovery;
- Currently, EA is conducting groundwater monitoring and NAPL recovery at the Site.

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

Currently, no active remediation activities are taking place at the site.

### **C. Monitoring Activities Performed**

#### *Gauging*

On July 6, 2017, an EA representative gauged fluid levels in all installed and existing site wells (excluding MW-12) with an electronic water level meter or interface probe. Well MW-12 was not gauged since access has not been granted. A potentiometric surface map was constructed

based on the data collected (Figure 2). Monitoring well MW-20 was under pressure during the time of gauging and was excluded from the potentiometric surface map. Results of the gauging as well as historical data are summarized in Table 2. Field forms and notes are provided in Appendix B.

#### *Monitoring Well Sampling Activities*

On July 6, 2017, wells MW-4, MW-5, MW-6, MW-7, MW-13, MW-16, MW-17, MW-19, MW-20, and MW-21 were purged and then sampled using disposable bailers. Well MW-12 was scheduled to be sampled; however, access was not granted. Therefore, it was replaced with well MW-6. 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 new disposable bailers into the sample containers

EA measured field parameters, specific conductance, pH and temperature, with an Oakton PC 300 water quality meter during purging and prior to sampling. DO was measured from the first bailer retrieved using a YSI Pro DO meter. DO, specific conductance, pH and temperature were recorded on monitoring well sampling field forms. The 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 B.

Sample containers, preservatives, analytical methods, and holding times are specified in Table 1. 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 A.

#### *NAPL*

On July 6, 2017, NAPL was observed in wells MW-1, MW-2, MW-3, MW-8, MW-9, MW-10, MW-11, MW-14, MW-15, and MW-18. In well MW-8, 4.52 feet of NAPL was measured. Well MW-8 does not contain a sock or a skimmer. NAPL was hand bailed from well MW-8 for 30 minutes. Wells MW-1, MW-2 and MW-3 contained skimmers. The skimmers were emptied and any remaining NAPL present in the well was hand bailed until less than 1/8-inch of NAPL remained. The skimmers were then reinstalled in the wells. Wells MW-6, MW-9, MW-10, MW-11, MW-14 MW-15 and MW-18 contained absorbent socks. The socks were removed from the wells and the amount of NAPL staining on the sock was recorded. The remaining NAPL if any present in the wells were hand bailed until less than 1/8-inch remained. All recovered NAPL during this event was place in a 55 gallon steel drum that is located behind the building and secured to a pole with a chain. All used absorbent socks were transported to the Fina Truck Stop Site in Albuquerque, New Mexico to await disposal. The total NAPL recovered during this event has been approximately 18 gallons. NAPL recovery is summarized in Table 3.

### *Groundwater Sampling Results*

Dissolved phase hydrocarbon concentrations exceeded New Mexico Water Quality Control Commission (NMWQCC) and/or New Mexico Environmental Improvement Board (NMEIB) standards in all monitoring wells sampled except wells MW-4, MW-17, MW-20, and MW-21. Wells MW-17, MW-20, and MW-21 were below method detection limits for all contaminants of concern. Well MW-4 had detectable concentrations of MTBE and EDC, but was below standards. Wells MW-5, MW-6, MW-7, MW-13, MW-16, and MW-19 exceeded the NMWQCC standard with respect to benzene with concentrations ranging from 13,000 µg/L in well MW-5 to 27 µg/L in well MW-19. Wells MW-5, MW-6, and MW-7 exceeded the NMWQCC standards with respect to toluene. Wells MW-5 and MW-6 exceeded the NMWQCC standard with respect to ethylbenzene. Well MW-5, MW-6, and MW-7 exceeded the NMWQCC standards with respect to xylenes. Wells MW-5 and MW-7 exceeded the NMEIB standard with respect to MTBE. Wells MW-5, MW-6, MW-7, MW-13, and MW-16 exceeded the NMWQCC standard with respect to naphthalenes. Wells MW-5 and MW-7 exceeded the NMWQCC standard with respect to EDC. The laboratory analytical results for select organic compounds are summarized in Table 4, and field parameters are summarized in Table 5. Distribution of organic contaminants in groundwater is presented in Figure 3.

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

Currently, no system is installed at the site.

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

The dissolved phase hydrocarbon plume and the NAPL plume are not defined. The dissolved phase contaminant plume is not defined north, southwest, south, or southeast of the Site. The extent of the NAPL plume is not defined to the southwest of well MW-15 and may be present in the utility corridor along the east side of North Riverside Drive.

### **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 regional direction of groundwater flow is to the southeast at a gradient of 0.0025 foot per foot. A Potentiometric Surface Map is presented in Figure 2 and hydrographs for monitoring wells are provided in Appendix C. Monitoring well MW-20 was under pressure during the time of gauging and was excluded from the potentiometric surface map

NAPL remains persistent at the site with approximately 245 gallons recovered since July 2016. NAPL is currently present in 11 wells at the Site.

Five of the nine wells sampled at the site contain hydrocarbon concentrations above the NMWQCC and NMEIB standards. Benzene concentrations increased in wells MW-5, MW-7, MW-16, and MW-19 when compared to the previous sampling event in November 2016. Benzene concentration decreased slightly or remained the same in the other wells sampled. MTBE concentrations increased slightly in wells MW-5 and MW-16 when compared to the previous sampling event in November 2016. Total naphthalene concentrations increased in well MW-16 since the last sampling event. Total naphthalene concentrations has decreased or remained the same in all other wells sampled this event. Figure 3 presents the distribution of groundwater contamination. Concentration trends are presented in Appendix D.

Field parameters measurement are provided in Table 5. Field parameters appear to be fairly consistent with previous sampling events.

#### **B. Ongoing Assessment of Remediation System**

No active remediation system is operating at the Site.

#### **C. Recommendations**

Based on the results of the groundwater monitoring, the following recommendation is provided:

- Continue to conduct discretionary NAPL recovery events consisting of emptying skimmers, removing absorbent socks, bailing NAPL, resetting skimmers, and replacing absorbent socks at the Site.
- Continue groundwater monitoring.
- Complete a passive soil gas survey to delineate the extend of NAPL.

- Install additional monitoring wells to delineate the extent of the dissolved phase plume.

## **LIST OF TABLES**

Table 1	Summary of Groundwater Gauging Data
Table 2	Summary of Sample Analytical and Quality Control Requirements
Table 3	Summary of NAPL Recovery
Table 4	Summary of Groundwater Analytical Results
Table 5	Summary of Field Parameters

## **LIST OF FIGURES**

Figure 1	Site Map
Figure 2	Potentiometric Surface Map – July 2017
Figure 3	Groundwater Analytical Results – July 2017

## **LIST OF APPENDICES**

Appendix A	Analytical Laboratory Reports
Appendix B	Sampling Field Forms
Appendix C	Hydrographs
Appendix D	Trends

## **TABLES**

**TABLE 1. SUMMARY OF FLUID GAUGING DATA  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitoring Well	Date Measured	Northing	Easting	Casing Elevation <sup>1</sup>	Passive NAPL Recovery Device	Depth to Product <sup>1</sup>	Product Thickness <sup>2</sup>	Depth to Water <sup>1</sup>	Groundwater Elevation <sup>2</sup>
MW-1	6-Jul-17	1825407.387	1695429.115	5621.88	SK	15.22	4.07	19.29	5605.64
	3-Nov-16					14.83	2.40	17.23	5606.45
	22-Jul-16					15.61	2.45	18.06	5605.66
	14-Jul-16					14.45	4.70	19.15	5606.26
	19-Jan-16					13.84	3.93	17.77	5607.06
	9-Jan-15					14.20	3.49	17.69	5606.81
	10-Dec-14				NA	15.51	3.20	18.71	5605.57
	3-Oct-14					14.81	0.04	14.85	5607.06
	26-Nov-13					13.82	1.08	14.90	5607.79
	12-Nov-13					15.37	0.46	15.83	5606.40
	29-Oct-13					13.36	1.89	15.25	5608.05
	10-Jul-13					14.21	0.24	14.45	5607.61
	27-Jun-13					14.43	0.37	14.80	5607.36
	3-Jun-13					13.92	0.28	14.20	5607.89
	27-Feb-13					14.06	0.34	14.40	5607.74
	4-Feb-13					NM	NM	NM	NM
	1-Feb-13					NM	NM	NM	NM
MW-2	6-Jul-17	1825384.848	1695384.788	5622.248	SK	16.21	2.85	19.06	5605.33
	3-Nov-16					15.23	2.52	17.75	5606.39
	22-Jul-16					14.91	3.57	18.48	5606.45
	14-Jul-16				NA	15.23	3.88	19.11	5606.05
	19-Jan-16					14.45	3.60	18.05	5606.90
	9-Jan-15					14.99	3.74	18.73	5606.32
	10-Dec-14					15.77	2.87	18.64	5605.76
	3-Oct-14					14.97	0.08	15.05	5607.26
	26-Nov-13					12.95	5.61	18.56	5607.90
	12-Nov-13					14.34	5.06	19.40	5606.64
	29-Oct-13					12.66	6.02	18.68	5608.08
	10-Jul-13					13.67	3.83	17.50	5607.62
	27-Jun-13					13.98	4.22	18.20	5607.21
	3-Jun-13					13.42	3.97	17.39	5607.84
	27-Feb-13					13.11	5.45	18.56	5607.78
	4-Feb-13					NM	NM	NM	NM
	1-Feb-13					NM	NM	NM	NM
MW-3	6-Jul-17	1825335.555	1695382.273	5622.241	SK	15.70	3.23	18.93	5605.73
	3-Nov-16					16.29	0.49	16.78	5605.83
	22-Jul-16					14.60	6.48	21.08	5606.02
	14-Jul-16				NA	14.23	7.95	22.18	5606.02
	19-Jan-16					12.69	5.91	18.60	5608.07
	9-Jan-15					13.72	6.90	20.62	5606.80
	10-Dec-14					14.75	7.51	22.26	5605.61
	3-Oct-14					13.96	2.95	16.91	5607.54
	26-Nov-13					13.02	6.00	19.02	5607.72
	12-Nov-13					13.19	7.43	20.62	5607.19
	29-Oct-13					12.50	6.96	19.46	5608.00
	10-Jul-13					13.70	3.98	17.68	5607.55
	27-Jun-13					13.88	4.45	18.33	5607.25
	3-Jun-13					13.46	4.11	17.57	5607.75
	27-Feb-13					13.80	2.89	16.69	5607.72
	4-Feb-13					NM	NM	NM	NM
	1-Feb-13					NM	NM	NM	NM

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Monitoring Well	Date Measured	Northing	Easting	Casing Elevation <sup>1</sup>	Passive NAPL Recovery Device	Depth to Product <sup>1</sup>	Product Thickness <sup>2</sup>	Depth to Water <sup>1</sup>	Groundwater Elevation <sup>2</sup>
MW-4	6-Jul-17	1825389.858	1695478.155	5622.812	NA	-	-	17.34	5605.47
	21-Dec-16					-	-	15.50	5607.31
	3-Nov-16					-	-	16.25	5606.56
	22-Jul-16					-	-	15.10	5607.71
	14-Jul-16					-	-	14.89	5607.92
	19-Jan-16					-	-	14.33	5608.48
	9-Jan-15					-	-	15.88	5606.93
	9-Dec-14					Lost Data			
	3-Oct-14					-	-	16.21	5606.60
	26-Nov-13					-	-	15.20	5607.61
	12-Nov-13					-	-	15.12	5607.69
	29-Oct-13					-	-	14.13	5608.68
MW-5	6-Jul-17	1825285.314	1695368.193	5621.609	NA	-	-	16.38	5605.23
	21-Dec-16					-	-	14.93	5606.68
	3-Nov-16					-	-	14.86	5606.75
	22-Jul-16					-	-	14.87	5606.74
	14-Jul-16					-	-	14.17	5607.44
	19-Jan-16					-	-	13.62	5607.99
	9-Jan-15					-	-	14.40	5607.21
	9-Dec-14					Lost Data			
	3-Oct-14					-	-	14.48	5607.13
	26-Nov-13					-	-	14.07	5607.54
	12-Nov-13					-	-	13.93	5607.68
	29-Oct-13					-	-	13.77	5607.84
MW-6	6-Jul-17	1825418.201	1695357.137	5622.01	AB	-	-	16.59	5605.42
	3-Nov-16					15.67	0.01	15.68	5606.34
	22-Jul-16					-	-	16.33	5605.68
	14-Jul-16			NA	NA	14.34	0.03	14.37	5607.64
	19-Jan-16					14.99	0.04	15.03	5606.98
	9-Jan-15					15.58	0.04	15.62	5606.39
	10-Dec-14					16.20	0.34	16.54	5605.47
	3-Oct-14					15.60	0.05	15.65	5606.36
	26-Nov-13					14.31	0.02	14.33	5607.68
	12-Nov-13					14.39	0.01	14.40	5607.61
	29-Oct-13					-	-	13.97	5608.04
MW-7	6-Jul-17	1825370.518	1695355.899	5622.09	NA	-	-	17.03	5605.06
	21-Dec-16					-	-	15.13	5606.96
	3-Nov-16					-	-	15.77	5606.32
	22-Jul-16					-	-	16.09	5606.00
	14-Jul-16					-	-	14.52	5607.57
	19-Jan-16					-	-	14.00	5608.09
	9-Jan-15					-	-	15.25	5606.84
	10-Dec-14					Lost Data			
	3-Oct-14					-	-	15.84	5606.25
	26-Nov-13					-	-	14.50	5607.59
	12-Nov-13					-	-	14.62	5607.47
	29-Oct-13					-	-	14.17	5607.92

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Monitoring Well	Date Measured	Northing	Easting	Casing Elevation <sup>1</sup>	Passive NAPL Recovery Device	Depth to Product <sup>1</sup>	Product Thickness <sup>2</sup>	Depth to Water <sup>1</sup>	Groundwater Elevation <sup>2</sup>	
MW-8	6-Jul-17	1825453.301	1695402.237	5623.10	NA	16.79	4.52	21.31	5605.18	
	3-Nov-16					15.33	5.21	20.54	5606.47	
	22-Jul-16					15.98	6.72	22.70	5605.44	
	14-Jul-16					15.15	6.31	21.46	5606.38	
	19-Jan-16					14.34	4.44	18.78	5607.65	
	9-Jan-15					15.00	6.45	21.45	5606.49	
	10-Dec-14				NA	15.27	6.51	21.78	5606.21	
	3-Oct-14					14.95	2.57	17.52	5607.51	
	26-Nov-13					14.05	4.25	18.30	5607.99	
	12-Nov-13					14.49	6.54	21.03	5606.98	
	29-Oct-13					13.80	3.55	17.35	5608.42	
MW-9	6-Jul-17	1825527.039	1695376.368	5623.105	AB	17.78	0.33	18.11	5605.24	
	3-Nov-16					16.09	0.01	16.10	5607.01	
	22-Jul-16					16.92	0.52	17.44	5606.06	
	14-Jul-16				NA	15.13	0.63	15.76	5607.82	
	19-Jan-16					14.65	0.63	15.28	5608.30	
	9-Jan-15					-	-	16.46	5606.65	
	10-Dec-14					-	-	17.15	5605.96	
	3-Oct-14					-	-	16.69	5606.42	
MW-10	6-Jul-17	1825456.216	1695363.611	5623.073	AB	17.93	0.01	17.94	5605.14	
	3-Nov-16					16.23	0.01	16.24	5606.84	
	22-Jul-16					-	-	17.22	5605.85	
	14-Jul-16			NA	Sheen	15.37	0.01	15.38	5607.69	
	19-Jan-16					-	-	14.89	5608.18	
	9-Jan-15				NA	-	-	16.28	5606.79	
	9-Dec-14					-	-	16.78	5606.29	
	3-Oct-14					Lost Data				
MW-11	6-Jul-17	1825451.121	1695456.836	5623.36	AB	17.47	2.35	19.82	5605.31	
	3-Nov-16					16.85	1.21	18.06	5606.21	
	22-Jul-16				NA	17.20	1.50	18.70	5605.79	
	14-Jul-16			NA		16.01	3.09	19.10	5606.58	
	19-Jan-16					15.47	3.66	19.13	5606.98	
	9-Jan-15					15.89	3.36	19.25	5606.63	
	10-Dec-14					16.52	3.63	20.15	5605.94	
	3-Oct-14					15.55	0.16	15.71	5607.77	
MW-12	6-Jul-17	1825373.895	1695248.568	5622.05	NA	-	-	NM	NM	
	21-Dec-16					-	-	NM	NM	
	3-Nov-16					-	-	NM	NM	
	22-Jul-16					-	-	NM	NM	
	14-Jul-16					-	-	NM	NM	
	19-Jan-16					-	-	NM	NM	
	9-Jan-15					-	-	15.21	5606.84	
	9-Dec-14					-	-	15.94	5606.11	
	3-Oct-14					-	-	15.52	5606.53	
MW-13	6-Jul-17	1825203.294	1695365.307	5621.52	NA	-	-	16.61	5604.91	
	21-Dec-16					-	-	14.87	5606.65	
	3-Nov-16					-	-	14.57	5606.95	
	22-Jul-16					-	-	14.46	5607.06	
	14-Jul-16					-	-	14.24	5607.28	
	19-Jan-16					-	-	NM	NM	
	9-Jan-15					-	-	14.76	5606.76	
	9-Dec-14					Lost Data				
	3-Oct-14					-	-	14.81	5606.71	

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Monitoring Well	Date Measured	Northing	Easting	Casing Elevation <sup>1</sup>	Passive NAPL Recovery Device	Depth to Product <sup>1</sup>	Product Thickness <sup>2</sup>	Depth to Water <sup>1</sup>	Groundwater Elevation <sup>2</sup>
MW-14	6-Jul-17	1825595.649	1695371.248	5622.97	AB	17.46	0.67	18.13	5605.34
	3-Nov-16					15.90	0.10	16.00	5607.04
	22-Jul-16					16.68	0.38	17.06	5606.19
	14-Jul-16					15.23	0.47	15.70	5607.62
	19-Jan-16				NA	14.40	0.79	15.19	5608.37
	9-Jan-15					15.96	0.49	16.45	5606.88
	10-Dec-14					16.38	2.19	18.57	5606.04
	3-Oct-14					15.76	0.29	16.05	5607.13
	MW-15	1825307.763	1695360.233	5622.104	AB	16.10	1.21	17.31	5605.70
	6-Jul-17					15.64	0.01	15.65	5606.46
	3-Nov-16				NA	15.11	3.44	18.55	5606.13
	22-Jul-16					14.35	1.59	15.94	5607.36
MW-16	6-Jul-17	1825306.899	1695428.889	5622.15	NA	-	-	16.98	5605.17
	21-Dec-16					-	-	15.17	5606.98
	3-Nov-16					-	-	15.35	5606.80
	22-Jul-16					-	-	15.36	5606.79
	14-Jul-16					-	-	14.54	5607.61
MW-17	6-Jul-17	1825469.015	1695521.707	5623.46	NA	-	-	17.69	5605.77
	21-Dec-16					-	-	15.84	5607.62
	3-Nov-16					-	-	16.37	5607.09
	22-Jul-16					-	-	16.58	5606.88
	14-Jul-16					-	-	15.20	5608.26
	MW-18	1825597.296	1695477.297	5623.49	AB	18.05	0.19	18.24	5605.39
	6-Jul-17					16.10	0.01	16.11	5607.38
	3-Nov-16				NA	16.58	0.01	16.59	5606.90
	22-Jul-16					-	-	15.36	5608.13
MW-19	6-Jul-17	1825621.077	1695402.206	5623.58	NA	-	-	17.92	5605.66
	21-Dec-16					-	-	16.17	5607.41
	3-Nov-16					-	-	15.94	5607.64
	22-Jul-16					-	-	16.84	5606.74
	14-Jul-16					-	-	15.80	5607.78
MW-20	6-Jul-17	1825556.586	1695251.168	5623.18	NA	-	-	16.38	5606.80
	21-Dec-16					-	-	15.56	5607.62
	3-Nov-16					-	-	15.00	5608.18
	22-Jul-16					-	-	15.31	5607.87
	14-Jul-16					-	-	15.29	5607.89
MW-21	6-Jul-17	1825454.854	1695221.648	5622.16	NA	-	-	16.88	5605.28
	21-Dec-16					-	-	15.68	5606.48
	3-Nov-16					-	-	15.59	5606.57
	22-Jul-16					-	-	15.36	5606.80
	14-Jul-16					-	-	15.47	5606.69

NOTES:

<sup>1</sup> Measured in feet below the top of the casing

<sup>2</sup> Measured in feet

<sup>3</sup> Data collected before December 2011 was not collected by an EA representative.

**RED** = Indicates measurement taken after skimmer or sock removed; measurement not representative

AB = Aborbent sock installed

SK = Skimmer installed

NAPL = Nonaquious phase liquid

NA = Not applicable

NM = Not measured

**TABLE 2. SAMPLE ANALYTICAL AND QUALITY CONTROL REQUIREMENTS  
FAIRVIEW STATION, ESPANOLA, 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
NOTES:					
<6°C = Less than 6 degrees Celsius					
EPA = U.S. Environmental Protection Agency					
VOCs = Volatile organic compounds + naphthalenes					

**TABLE 3. SUMMARY OF NAPL RECOVERY  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitor Well	Date Recovered	NAPL Thickness Prior to Bailing <sup>1</sup>	NAPL Thickness After Bailing <sup>1</sup>	Total NAPL Recovered <sup>2</sup>	Comments
MW-1	6-Jul-17	4.07	2.31	7.50	skimmer 3/4 full; ~3 inches water
	3-Nov-16	2.40	0.10	1.50	skimmer 1/2 full
	21-Oct-16	1.12	0.27	0.75	skimmer 1/2 full
	6-Oct-16	2.34	0.01	1.25	skimmer 1/2 full
	22-Sep-16	0.83	0.11	0.75	skimmer 1/2 full
	15-Sep-16	3.68	0.01	1.50	skimmer 1/2 full
	31-Aug-16	4.48	0.05	3.00	skimmer 1/2 full
	18-Aug-16	4.80	0.75	3.50	skimmer 1/2 full
	11-Aug-16	4.75	0.80	4.00	skimmer 1/2 full
	4-Aug-16	4.87	0.94	5.00	skimmer 1/2 full
	28-Jul-16	4.55	0.16	3.00	skimmer 1/2 full
	22-Jul-16	2.45	1.55	3.25	skimmer 1/2 full
	14-Jul-16	4.70	0.01	3.25	set skimmer
	19-Jan-16	3.93	1.21	4.50	
	9-Jan-15	3.49	NM	NM	
	10-Dec-14	3.20	NM	NM	
	3-Oct-14	0.04	NM	0.00	
	26-Nov-13	1.08	NM	0.30	
	12-Nov-13	0.46	NM	0.30	
	29-Oct-13	1.89	NM	1.50	
	10-Jul-13	0.24	NM	0.00	
	27-Jun-13	0.37	NM	0.10	
	3-Jun-13	0.28	NM	0.50	
	27-Feb-13	0.34	NM	0.00	
	4-Feb-13	NM	NM	0.00	
	1-Feb-13	NM	NM	0.00	
MW-2	6-Jul-17	2.85	0.35	2.00	skimmer full; 1/4 NAPL, 3/4 water, soaked filter in NAPL
	3-Nov-16	2.52	0.15	2.00	skimmer full
	21-Oct-16	2.94	0.01	2.25	skimmer 1/2 full
	6-Oct-16	4.30	0.20	2.50	skimmer full
	22-Sep-16	3.88	0.26	2.25	skimmer full
	15-Sep-16	5.30	0.24	3.00	skimmer full
	31-Aug-16	5.36	0.26	2.50	skimmer full
	18-Aug-16	3.07	0.38	3.00	skimmer full
	11-Aug-16	3.41	0.27	3.00	skimmer full
	4-Aug-16	3.00	0.36	3.00	skimmer full
	28-Jul-16	3.59	0.18	2.25	skimmer full
	22-Jul-16	3.57	0.06	2.50	skimmer full
	14-Jul-16	3.88	0.01	2.75	set skimmer
	19-Jan-16	3.60	0.85	3.75	
	9-Jan-15	3.74	NM	NM	
	10-Dec-14	2.87	NM	NM	
	3-Oct-14	0.08	NM	0.00	
	26-Nov-13	5.61	NM	3.00	
	12-Nov-13	5.06	NM	2.80	
	29-Oct-13	6.02	NM	3.50	
	10-Jul-13	3.83	NM	2.50	
	27-Jun-13	4.22	NM	3.00	
	3-Jun-13	3.97	NM	4.50	
	27-Feb-13	5.45	NM	0.00	
	4-Feb-13	NM	NM	5.00	
	1-Feb-13	NM	NM	4.50	

**TABLE 3. SUMMARY OF NAPL RECOVERY  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitor Well	Date Recovered	NAPL Thickness Prior to Bailing <sup>1</sup>	NAPL Thickness After Bailing <sup>1</sup>	Total NAPL Recovered <sup>2</sup>	Comments
MW-3	6-Jul-17	3.23	0.01	1.50	skimmer full
	3-Nov-16	0.49	0.10	0.25	skimmer 1/2 full
	21-Oct-16	0.70	0.01	0.50	skimmer 1/3 full
	6-Oct-16	1.49	0.11	1.00	skimmer full
	22-Sep-16	1.81	0.07	1.25	skimmer full
	15-Sep-16	3.82	0.24	2.50	skimmer full
	31-Aug-16	3.12	0.13	2.25	skimmer full
	18-Aug-16	2.78	0.20	2.50	skimmer full
	11-Aug-16	3.10	0.28	3.00	skimmer full
	4-Aug-16	3.57	0.47	3.00	skimmer full of water only; replaced skimmer with skimmer from MW-11
	28-Jul-16	6.41	0.17	3.00	skimmer full of water only; soaked filter in NAPL
	22-Jul-16	6.48	0.15	5.50	skimmer full of water only
	14-Jul-16	7.95	0.01	5.50	set skimmer
	19-Jan-16	5.91	1.10	5.00	
	9-Jan-15	6.90	NM	NM	
	10-Dec-14	7.51	NM	NM	
	3-Oct-14	2.95	NM	0.00	
	26-Nov-13	6.00	NM	4.30	
	12-Nov-13	7.43	NM	5.00	
	29-Oct-13	6.96	NM	7.00	
	10-Jul-13	3.98	NM	3.00	
	27-Jun-13	4.45	NM	3.50	
	3-Jun-13	4.11	NM	4.50	
	27-Feb-13	2.89	NM	0.00	
	4-Feb-13	NM	NM	2.00	
	1-Feb-13	NM	NM	0.50	
MW-6	6-Jul-17	-	-	0.10	20 inches of staining; set new sock
	3-Nov-16	0.01	-	0.06	12 inches of staining; set new sock
	21-Oct-16	0.00	-	0.01	1 inch of staining; set new sock
	6-Oct-16	0.01	-	0.04	8 inches of staining; set new sock
	22-Sep-16	0.01	-	0.00	no staining; reset same sock
	15-Sep-16	0.00	-	0.06	11 inches of staining; set new sock
	31-Aug-16	0.01	-	0.07	14 inches of staining; set new sock
	18-Aug-16	0.01	-	0.08	16 inches of staining; set new sock
	11-Aug-16	0.00	-	0.08	16 inches of staining; set new sock
	4-Aug-16	0.00	-	0.08	16 inches of staining; set new sock
	28-Jul-16	0.00	-	0.00	no staining; reset same sock
	22-Jul-16	0.00	-	0.01	2 inches of staining; set new sock
	14-Jul-16	0.03	0.00	negligible	set new sock
	19-Jan-16	0.04	0.00	negligible	
	9-Jan-15	0.04	NM	0.00	
	10-Dec-14	0.34	NM	0.00	
	3-Oct-14	0.05	NM	0.00	
	26-Nov-13	0.02	NM	0.00	
	12-Nov-13	0.01	NM	0.00	
	29-Oct-13	-	-	0.00	

**TABLE 3. SUMMARY OF NAPL RECOVERY  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitor Well	Date Recovered	NAPL Thickness Prior to Bailing <sup>1</sup>	NAPL Thickness After Bailing <sup>1</sup>	Total NAPL Recovered <sup>2</sup>	Comments
MW-8	6-Jul-17	4.52	0.24	1.00	
	3-Nov-16	5.21	0.07	2.00	
	21-Oct-16	6.09	0.05	2.00	
	6-Oct-16	6.57	0.20	2.25	
	22-Sep-16	5.91	0.05	2.25	
	15-Sep-16	4.36	0.15	2.50	skimmer 1/2 full of NAPL, 1/2 full water; removed skimmer
	31-Aug-16	3.86	0.30	2.50	skimmer 1/3 full of NAPL, 2/3 full water; soaked filter in NAPL
	18-Aug-16	6.41	0.04	3.00	skimmer full
	11-Aug-16	6.05	0.06	3.00	skimmer full
	4-Aug-16	3.72	0.17	3.00	skimmer full
	28-Jul-16	6.88	0.13	1.75	skimmer full
	22-Jul-16	6.72	0.10	3.00	skimmer 3/4 full
	14-Jul-16	6.31	0.01	3.00	set skimmer
	19-Jan-16	4.44	0.55	3.25	
	9-Jan-15	6.45	NM	NM	
	10-Dec-14	6.51	NM	NM	
	3-Oct-14	2.57	NM	0.00	
	26-Nov-13	4.25	NM	3.50	
	12-Nov-13	6.54	NM	3.00	
	29-Oct-13	3.55	NM	2.50	
MW-9	6-Jul-17	0.33	0.01	0.09	17 inches of staining; set new sock
	3-Nov-16	0.01	-	0.05	9 inches of staining; set new sock
	21-Oct-16	0.01	-	0.01	2 inches of staining; set new sock
	6-Oct-16	0.00	-	0.03	6 inches of staining; set new sock
	22-Sep-16	0.00	-	0.00	no staining; reset same sock
	15-Sep-16	0.00	-	0.00	no staining; reset same sock
	31-Aug-16	0.01	-	0.06	11 inches of staining; set new sock
	18-Aug-16	0.00	-	0.07	13 inches of staining; set new sock
	11-Aug-16	0.00	-	0.00	no staining; reset same sock
	4-Aug-16	0.01	-	0.08	16 inches of staining; set new sock
	28-Jul-16	0.01	-	0.12	2 feet of staining; set new sock
	22-Jul-16	0.52	0.11	0.31	1 foot of staining; set new sock
	14-Jul-16	0.63	0.01	0.25	set new sock
	19-Jan-16	0.63	0.01	negligible	
	9-Jan-15	-	-	0.00	
	10-Dec-14	-	-	0.00	
	3-Oct-14	-	-	0.00	
MW-10	6-Jul-17	0.01	-	0.07	13 inches of staining; set new sock
	3-Nov-16	0.01	-	0.03	6 inches of staining; set new sock
	21-Oct-16	0.00	-	0.00	no staining; reset same sock
	6-Oct-16	0.00	-	0.03	5 inches of staining; set new sock
	22-Sep-16	0.00	-	0.00	no staining; reset same sock
	15-Sep-16	0.00	-	0.02	4.5 inches of staining; set new sock
	31-Aug-16	0.00	-	0.06	11 inches of staining; set new sock
	18-Aug-16	0.00	-	0.06	11 inches of staining; set new sock
	11-Aug-16	0.00	-	0.06	1 foot of staining; set new sock
	4-Aug-16	0.00	-	0.00	no staining; reset same sock
	28-Jul-16	0.00	-	0.06	1 foot of staining; set new sock
	22-Jul-16	0.00	-	0.07	14 inches of staining; set new sock
	14-Jul-16	0.01	-	0.00	set new sock
	19-Jan-16	Sheen		0.00	
	9-Jan-15	-	-	0.00	
	9-Dec-14	Lost Data		0.00	
	3-Oct-14	-	-	0.00	

**TABLE 3. SUMMARY OF NAPL RECOVERY  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitor Well	Date Recovered	NAPL Thickness Prior to Bailing <sup>1</sup>	NAPL Thickness After Bailing <sup>1</sup>	Total NAPL Recovered <sup>2</sup>	Comments
MW-11	6-Jul-17	2.35	1.43	5.02	3.5 inches of staining; set new sock
	3-Nov-16	1.21	0.01	0.29	7 inches of staining; set new sock
	21-Oct-16	1.74	0.05	0.77	3 inches of staining; set new sock
	6-Oct-16	1.88	0.09	0.79	8 inches of staining; set new sock
	22-Sep-16	0.85	0.05	0.29	7 inches of staining; set new sock
	15-Sep-16	0.52	0.01	0.06	11 inches of staining; set new sock
	31-Aug-16	0.20	0.01	0.09	18 inches of staining; set new sock
	18-Aug-16	0.36	0.01	0.08	15 inches of staining; set new sock
	11-Aug-16	0.26	0.01	0.06	1 foot of staining; set new sock
	4-Aug-16	0.18	0.01	0.25	skimmer 1/2 full; removed skimmer; installed sock
	28-Jul-16	0.25	0.01	0.10	skimmer 1/2 full
	22-Jul-16	1.50	0.16	1.25	skimmer full
	14-Jul-16	3.09	0.01	2.00	set skimmer
	19-Jan-16	3.66	0.62	2.75	
	9-Jan-15	3.36	NM	NM	
	10-Dec-14	3.63	NM	NM	
	3-Oct-14	0.16	NM	0.00	
MW-14	6-Jul-17	0.67	0.01	0.05	10 inches of staining; set new sock
	3-Nov-16	0.10	0.01	0.07	13 inches of staining; set new sock
	21-Oct-16	0.12	0.01	0.01	2 inches of staining; set new sock
	6-Oct-16	0.05	0.00	0.03	6 inches of staining; set new sock
	22-Sep-16	0.01	-	0.02	4 inches of staining; set new sock
	15-Sep-16	0.01	-	0.02	4 inches of staining; set new sock
	31-Aug-16	0.00	-	0.06	11 inches of staining; set new sock
	18-Aug-16	0.01	-	0.07	14 inches of staining; set new sock
	11-Aug-16	0.00	-	0.02	3 inches of staining; set new sock
	4-Aug-16	0.01	-	0.01	2 inches of staining; set new sock
	28-Jul-16	0.12	0.01	0.10	19 inches of staining; set new sock
	22-Jul-16	0.38	0.19	0.33	16 inches of staining; set new sock
	14-Jul-16	0.47	0.01	0.10	set new sock
	19-Jan-16	0.79	0.01	0.25	
	9-Jan-15	0.49	NM	NM	
	10-Dec-14	2.19	NM	NM	
	3-Oct-14	0.29	NM	0.00	
MW-15	6-Jul-17	1.21	-	0.54	7 inches of staining; set new sock
	3-Nov-16	0.01	-	0.03	5 inches of staining; set new sock
	21-Oct-16	0.27	0.01	0.04	8.5 inches of staining; set new sock
	6-Oct-16	0.20	0.01	0.08	16 inches of staining; set new sock
	22-Sep-16	0.08	0.01	0.08	16 inches of staining; set new sock
	15-Sep-16	0.13	0.01	0.10	19 inches of staining; set new sock
	31-Aug-16	0.06	0.00	0.15	29 inches of staining; set new sock
	18-Aug-16	1.05	0.01	0.15	30 inches of staining; set new sock
	11-Aug-16	0.32	0.04	0.00	no staining; reset same sock
	4-Aug-16	0.60	0.03	0.93	3 feet of staining; set new sock
	28-Jul-16	0.73	0.01	0.25	set new sock
	22-Jul-16	3.44	0.87	2.50	
	14-Jul-16	1.59	0.01	1.50	

**TABLE 3. SUMMARY OF NAPL RECOVERY  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitor Well	Date Recovered	NAPL Thickness Prior to Bailing <sup>1</sup>	NAPL Thickness After Bailing <sup>1</sup>	Total NAPL Recovered <sup>2</sup>	Comments
MW-18	6-Jul-17	0.19	0.01	0.04	8 inches of staining; set new sock
	3-Nov-16	0.01	-	0.09	18 inches of staining; set new sock
	21-Oct-16	0.00	-	0.02	3 inches of staining; set new sock
	6-Oct-16	0.01	-	0.03	6 inches of staining; set new sock
	22-Sep-16	0.00	-	0.00	no staining; reset same sock
	15-Sep-16	0.00	-	0.09	17 inches of staining; set new sock
	31-Aug-16	0.00	-	0.09	18 inches of staining; set new sock
	18-Aug-16	0.00	-	0.11	21 inches of staining; set new sock
	11-Aug-16	0.00	-	0.09	18 inches of staining; set new sock
	4-Aug-16	0.00	-	0.00	no staining; reset same sock
	28-Jul-16	0.00	-	0.08	15 inches of staining; set new sock
	22-Jul-16	0.01	-	0.00	set new sock
<b>Total NAPL Recovered July 2017</b>				<b>17.89</b>	
<b>Cumulative Total NAPL Recovered at the Site<sup>2</sup></b>				<b>244.97</b>	
NOTES:					
NAPL - Non Aqueous Phase Liquid					
<sup>1</sup> Measured in feet.					
<sup>2</sup> Measured in gallons.					
Absorbent sock capacity = 0.005 gallons per inch					
All NAPL recovered is placed in a drum located at the Fairview Station Site in Espanola, NM.					

**TABLE 4. SUMMARY OF GROUNDWATER SAMPLE RESULTS VOLATILE ORGANIC COMPOUNDS AND DISSOLVED LEAD  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitoring Well	Date Measured	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Xylene ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )	EDC ( $\mu\text{g/L}$ )	Naphthalene <sup>1</sup> ( $\mu\text{g/L}$ )	1-Methylnaphthalene <sup>1</sup> ( $\mu\text{g/L}$ )	2-Methylnaphthalene <sup>1</sup> ( $\mu\text{g/L}$ )	Total Naphthalenes <sup>1</sup> ( $\mu\text{g/L}$ )	Dissolved Lead (mg/L)
MW-1	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14								NAPL - Not Sampled				
	4-Feb-13	16,000	21,000	3,700	14,000	3,900	<10	64	630	190	350	1,170	0.0035
MW-2	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	10-Dec-14	24,000	23,000	2,600	12,000	27,000	0.2	<500	<1000	<2,000	<2,000	<2,000	NA
	4-Feb-13								NAPL - Not Sampled				
MW-3	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14								NAPL - Not Sampled				
	4-Feb-13								NAPL - Not Sampled				
MW-4	6-Jul-17	<1.0	<1.0	<1.0	<1.5	62	<1.0	4.4	<2.0	<4.0	<4.0	<4.0	NA
	3-Nov-16	3.4	<1.0	<1.0	<1.5	61	<1.0	4.6	<2.0	<4.0	<4.0	<4.0	NA
	13-Jul-16	4.8	<1.0	<1.0	<1.5	130	<0.010	17	<2.0	<4.0	<4.0	<4.0	NA
	19-Jan-16	<1.0	<1.0	<1.0	<1.5	42	<0.010	7.1	<2.0	<4.0	<4.0	<4.0	NA
	9-Dec-14	<1.0	<1.0	<1.0	<1.5	13	<0.01	2.4	<2.0	<4.0	<4.0	<4.0	NA
	29-Oct-13	<1.0	<1.0	<1.0	<2.0	31	<0.01	8.8	NA	NA	NA	NA	<0.005
MW-5	6-Jul-17	13,000	980	1,100	1,000	2,400	<20	69	190	<80	<80	190	NA
	3-Nov-16	12,000	540	1,200	580	2,200	<100	<100	230	<400	<400	230	NA
	14-Jul-16	13,000	930	1,200	820	2,600	<1.0	<1.0	270	48	80	398	NA
	19-Jan-16	16,000	470	1,200	390	2,700	<0.010	130	260	<40	68	328	NA
	9-Dec-14	8,900	940	1,200	1,500	1,700	<0.01	<100	230	<400	<400	230	NA
	29-Oct-13	4,300	1,100	740	2,000	540	<0.01	44	130	36	69	235	<0.005
MW-6	6-Jul-17	690	3,900	2,300	13,000	53	<50	<50	660	<200	210	870	NA
	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	10-Dec-14	5,500	29,000	5,100	28,000	<500	<0.01	<500	1,100	<2,000	<2,000	1,100	NA
	29-Oct-13	10,000	23,000	3,100	13,000	110	<0.01	<50	450	92	170	712	<0.005
MW-7	6-Jul-17	8,200	840	710	1,000	3,400	<10	22	120	<40	<40	120	NA
	3-Nov-16	7,000	1,600	630	1,500	3,400	<20	28	220	<80	<80	220	NA
	14-Jul-16	4,800	500	360	590	2,500	<1.0	<1.0	150	37	46	233	NA
	19-Jan-16	3,300	640	460	1,000	1,500	<0.010	5.7	160	22	37	219	NA
	9-Dec-14	4,000	420	510	1,100	1,500	<0.01	<50	130	<200	<200	130	NA
	29-Oct-13	7,700	7,400	1,700	8,900	3,500	<0.01	<50	370	88	180	638	<0.005
MW-8	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14								NAPL - Not Sampled				
	29-Oct-13								NAPL - Not Sampled				
MW-9	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14	2,300	2,600	2,600	12,000	<100	<0.01	<100	720	<400	450	1,170	NA
	21-Jul-14	2,000	1,100	1,800	6,600	<100	<0.01	<100	330	110	200	640	0.014
MW-10	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14	3,900	2,000	2,000	6,100	<100	<0.01	<100	410	<400	<400	410	NA
	22-Jul-14	4,200	5,900	2,700	10,000	170	<0.01	<100	470	160	310	940	0.084
MW-11	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14								NAPL - Not Sampled				
	22-Jul-14	10,000	16,000	2,600	11,000	330	<0.01	<100	540	190	360	1,090	0.088
MW-12	6-Jul-17												
	3-Nov-16								No Access - Not Sampled				
	14-Jul-16								No Access - Not Sampled				
	19-Jan-16								No Access - Not Sampled				
	9-Dec-14	1,900	310	470	710	100	<0.01	<50	<100	<200	<200	<200	NA
	21-Aug-14	1,800	110	340	810	230	<0.01	<10	50	8.0	13	71	0.130
MW-13	6-Jul-17	1,900	11	190	<15	<10	<10	<10	36	<40	<40	36	NA
	3-Nov-16	1,900	18	220	73	10	<10	<10	59	<40	<40	59	NA
	14-Jul-16	1,900	13	280	71	9.5	<1.0	<1.0	42	9.8	14	66	NA
	19-Jan-16								No Access - Not Sampled				
	9-Dec-14	420	5.0	78	90	<5.0	<0.01	<5.0	24	<20	<20	24	NA
	18-Jul-14	130	<10	35	24	<10	<0.01	<10	9.6	20	35	65	0.062

**TABLE 4. SUMMARY OF GROUNDWATER SAMPLE RESULTS VOLATILE ORGANIC COMPOUNDS AND DISSOLVED LEAD**  
**FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Monitoring Well	Date Measured	Benzene ( $\mu\text{g/L}$ )	Toluene ( $\mu\text{g/L}$ )	Ethylbenzene ( $\mu\text{g/L}$ )	Xylene ( $\mu\text{g/L}$ )	MTBE ( $\mu\text{g/L}$ )	EDB ( $\mu\text{g/L}$ )	EDC ( $\mu\text{g/L}$ )	Naphthalene <sup>1</sup> ( $\mu\text{g/L}$ )	1-Methylnaphthalene <sup>1</sup> ( $\mu\text{g/L}$ )	2-Methylnaphthalene <sup>1</sup> ( $\mu\text{g/L}$ )	Total Naphthalenes <sup>1</sup> ( $\mu\text{g/L}$ )	Dissolved Lead (mg/L)
MW-14	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
	19-Jan-16								NAPL - Not Sampled				
	9-Dec-14	780	1,700	290	1,700	<100	15	170	200	<400	<400	200	NA
	21-Aug-14	480	210	65	160	<10	2.3	84	18	3.7	3.3	25	0.020
MW-15	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16								NAPL - Not Sampled				
MW-16	6-Jul-17	1,700	490	450	500	29	<1.0	<1.0	130	30	39	199	NA
	3-Nov-16	73	23	80	110	3.4	<1.0	<1.0	42	11	16	69	NA
	14-Jul-16	67	78	150	290	<1.0	<1.0	<1.0	67	17	23	107	NA
MW-17	6-Jul-17	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
	3-Nov-16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
	14-Jul-16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
MW-18	3-Nov-16								NAPL - Not Sampled				
	14-Jul-16	1,800	610	1,500	4,300	<1.0	<1.0	<1.0	460	76	140	676	NA
MW-19	6-Jul-17	27	1.7	<1.0	5.1	<1.0	<1.0	2.2	2.2	<4.0	<4.0	2.2	NA
	3-Nov-16	20	2.3	<1.0	5.7	<1.0	<1.0	1.4	<2.0	<4.0	<4.0	<4.0	NA
	14-Jul-16	75	160	45	110	<1.0	<1.0	3.2	15	6.4	12	33	NA
MW-20	6-Jul-17	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
	3-Nov-16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
	14-Jul-16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
MW-21	6-Jul-17	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
	3-Nov-16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<1.0	<2.0	<4.0	<4.0	<4.0	NA
	14-Jul-16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	1.1	<2.0	<4.0	<4.0	<4.0	NA
<b>NMWQCC and EIB Standards</b>	10	750	750	620	100	0.1	10					30*	0.05

NOTES:

All concentrations in micrograms per liter ( $\mu\text{g/L}$ ) which is equivalent to parts per billion (ppb)

All samples analyzed for volatile organic compounds by EPA method 8260B

EDB = Ethylene dibromide; Sample was analyzed for EDB using EPA method 504.1

EDC = Ethylene dichloride

EIB = Environmental Improvement Board

MTBE = Methyl tertiary butyl ether

NA = Not analyzed

NMWQCC = New Mexico Water Quality Control Commission

Dissolved lead analyzed by EPA method 6010B

\* Standard for Total Naphthalenes = sum of Naphthalenes, 1-Methylnaphthalenes, and 2-Methylnaphthalenes

<sup>1</sup> Naphthalene, 1-methylnaphthalene, and 2-methylnaphthalene were analyzed by EPA method 8270C prior to December 2014

**TABLE 5. SUMMARY OF FIELD PARAMETERS  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Well Number	Date Sampled	pH	SpC (uS/cm)	Temp	DO (mg/L)
MW-1	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-2	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-3	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-4	6-Jul-17	7.24	1,312	16.4	1.12
	3-Nov-16	7.14	1,375	16.1	2.32
	13-Jul-16	7.10	1,624	15.9	NM
	19-Jan-16	6.74	706	16.0	NM
MW-5	6-Jul-17	7.27	2,070	18.8	0.98
	3-Nov-16	7.26	2,110	17.1	1.90
	14-Jul-16	7.14	1,600	15.6	NM
	19-Jan-16	7.18	1,808	15.8	NM
MW-6	6-Jul-17	7.13	2,600	18.4	1.07
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-7	6-Jul-17	7.71	1,295	16.9	1.07
	3-Nov-16	7.18	1,259	17.5	1.66
	14-Jul-16	7.10	1,088	16.0	NM
	19-Jan-16	7.17	1,069	16.6	NM
MW-8	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-9	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-10	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16	6.86	1,642	16.2	NM

**TABLE 5. SUMMARY OF FIELD PARAMETERS  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Well Number	Date Sampled	pH	SpC (uS/cm)	Temp	DO (mg/L)
MW-11	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-12	6-Jul-17		No Access		
	3-Nov-16		No Access		
	14-Jul-16		No Access		
	19-Jan-16		No Access		
MW-13	6-Jul-17	7.37	2,280	15.9	1.03
	3-Nov-16	7.26	1,830	15.3	4.17
	14-Jul-16	7.24	1,584	14.8	NM
	19-Jan-16		No Access		
MW-14	6-Jul-17		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	14-Jul-16		NAPL - Not Measured		
	19-Jan-16		NAPL - Not Measured		
MW-15	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16	7.80	790	17.9	NM
MW-16	6-Jul-17	7.88	1,878	16.8	1.39
	3-Nov-16	7.45	1,278	16.7	2.19
	14-Jul-16	7.75	770	16.3	NM
MW-17	6-Jul-17	6.98	1,176	16.1	4.31
	3-Nov-16	7.34	895.5	16.7	5.22
	14-Jul-16	7.65	682	16.8	NM
MW-18	6-Jul-17		NAPL - Not Measured		
	3-Nov-16		NAPL - Not Measured		
	14-Jul-16	7.81	951	16.4	NM
MW-19	6-Jul-17	7.17	5,970	16.6	0.98
	3-Nov-16	7.16	4,050	16.6	2.16
	14-Jul-16	7.70	1,758	16.8	NM
MW-20	6-Jul-17	7.04	7,030	16.9	1.94
	3-Nov-16	6.98	7,850	17.6	1.78
	14-Jul-16	7.71	5,380	17.7	NM

**TABLE 5. SUMMARY OF FIELD PARAMETERS  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

Well Number	Date Sampled	pH	SpC (uS/cm)	Temp	DO (mg/L)
MW-21	6-Jul-17	6.93	5,390	17.1	2.23
	3-Nov-16	7.07	6,230	17.1	2.05
	14-Jul-16	7.71	966	18.3	NM

NOTES:  
 DO = Dissolved oxygen  
 mg/L = Milligrams per liter  
 NAPL = Non-aqueous phase liquid  
 SpC = Specific conductance  
 uS/cm = Microsiemens per centimeter

## **FIGURES**



**LEGEND:**

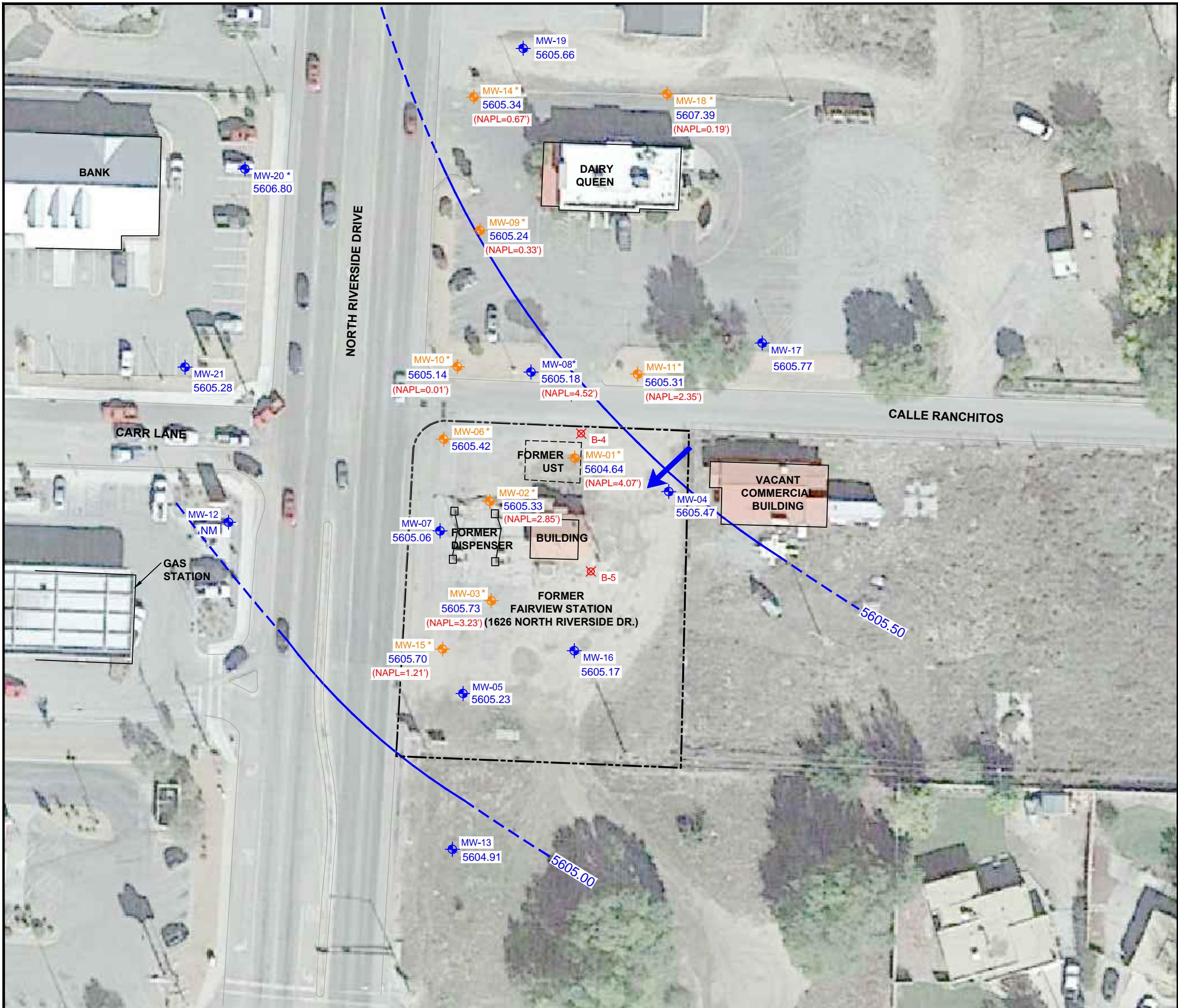
- MW-1** MONITORING WELL
- MW-8** MONITORING WELL WITH SKIMMER OR ABSORBENT SOCK INSTALLED
- B-4** SOIL BORING
- BUILDING**
- UNDERGROUND STORAGE TANK (UST)**
- SITE BOUNDARY**

**FIGURE 1**  
**SITE MAP**

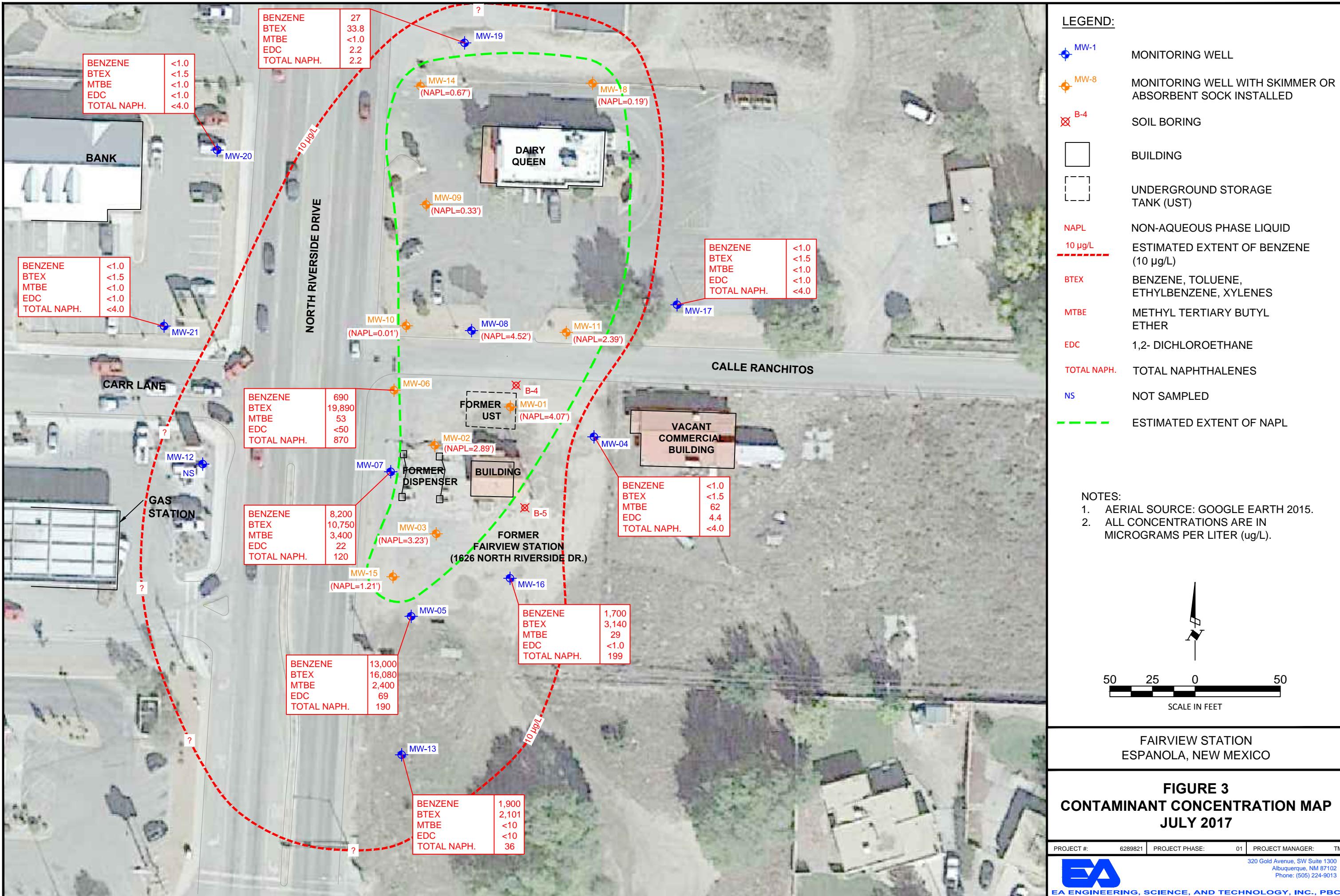
PROJECT #: 6288921 PROJECT PHASE: 01 PROJECT MANAGER: TM

320 Gold Avenue, SW Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013  
Fax: (505) 224-9016

**EA**  
EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC., PBC



**FIGURE 2**  
**POTENTIOMETRIC SURFACE MAP**  
**JULY 2017**



## **APPENDIX A**

### **LABORATORY REPORT**



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)

July 17, 2017

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

RE: Fairview Station

OrderNo.: 1707292

Dear Tyler Curley:

Hall Environmental Analysis Laboratory received 11 sample(s) on 7/6/2017 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".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-001

**Matrix:** AQUEOUS

**Client Sample ID:** MW-4

**Collection Date:** 7/6/2017 10:56:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Toluene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Ethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Methyl tert-butyl ether (MTBE)	62	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2-Dichloroethane (EDC)	4.4	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Naphthalene	ND	2.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Acetone	ND	10		µg/L	1	7/10/2017 8:49:00 PM	R44107
Bromobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Bromodichloromethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Bromoform	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Bromomethane	ND	3.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
2-Butanone	ND	10		µg/L	1	7/10/2017 8:49:00 PM	R44107
Carbon disulfide	ND	10		µg/L	1	7/10/2017 8:49:00 PM	R44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Chlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Chloroethane	ND	2.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Chloroform	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Chloromethane	ND	3.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Dibromochloromethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Dibromomethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/10/2017 8:49:00 PM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-001

**Matrix:** AQUEOUS

**Client Sample ID:** MW-4

**Collection Date:** 7/6/2017 10:56:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
2-Hexanone	ND	10		µg/L	1	7/10/2017 8:49:00 PM	R44107
Isopropylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/10/2017 8:49:00 PM	R44107
Methylene Chloride	ND	3.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
n-Butylbenzene	ND	3.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
n-Propylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Styrene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Vinyl chloride	ND	1.0		µg/L	1	7/10/2017 8:49:00 PM	R44107
Xylenes, Total	ND	1.5		µg/L	1	7/10/2017 8:49:00 PM	R44107
Surr: 1,2-Dichloroethane-d4	112	70-130		%Rec	1	7/10/2017 8:49:00 PM	R44107
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	7/10/2017 8:49:00 PM	R44107
Surr: Dibromofluoromethane	119	70-130		%Rec	1	7/10/2017 8:49:00 PM	R44107
Surr: Toluene-d8	102	70-130		%Rec	1	7/10/2017 8:49:00 PM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-002

**Matrix:** AQUEOUS

**Client Sample ID:** MW-5

**Collection Date:** 7/6/2017 1:26:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	13000	200		µg/L	200	7/10/2017 9:13:00 PM	R44107
Toluene	960	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Ethylbenzene	1100	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Methyl tert-butyl ether (MTBE)	2400	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2,4-Trimethylbenzene	490	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,3,5-Trimethylbenzene	65	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2-Dichloroethane (EDC)	69	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Naphthalene	190	40		µg/L	20	7/10/2017 9:37:00 PM	R44107
1-Methylnaphthalene	ND	80		µg/L	20	7/10/2017 9:37:00 PM	R44107
2-Methylnaphthalene	ND	80		µg/L	20	7/10/2017 9:37:00 PM	R44107
Acetone	ND	200		µg/L	20	7/10/2017 9:37:00 PM	R44107
Bromobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Bromodichloromethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Bromoform	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Bromomethane	ND	60		µg/L	20	7/10/2017 9:37:00 PM	R44107
2-Butanone	ND	200		µg/L	20	7/10/2017 9:37:00 PM	R44107
Carbon disulfide	ND	200		µg/L	20	7/10/2017 9:37:00 PM	R44107
Carbon Tetrachloride	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Chlorobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Chloroethane	ND	40		µg/L	20	7/10/2017 9:37:00 PM	R44107
Chloroform	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Chloromethane	ND	60		µg/L	20	7/10/2017 9:37:00 PM	R44107
2-Chlorotoluene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
4-Chlorotoluene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
cis-1,2-DCE	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
cis-1,3-Dichloropropene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	40		µg/L	20	7/10/2017 9:37:00 PM	R44107
Dibromochloromethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Dibromomethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2-Dichlorobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,3-Dichlorobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,4-Dichlorobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Dichlorodifluoromethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,1-Dichloroethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,1-Dichloroethene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2-Dichloropropane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,3-Dichloropropane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
2,2-Dichloropropane	ND	40		µg/L	20	7/10/2017 9:37:00 PM	R44107

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

Page 3 of 31

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-002

**Matrix:** AQUEOUS

**Client Sample ID:** MW-5

**Collection Date:** 7/6/2017 1:26:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Hexachlorobutadiene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
2-Hexanone	ND	200		µg/L	20	7/10/2017 9:37:00 PM	R44107
Isopropylbenzene	30	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
4-Isopropyltoluene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
4-Methyl-2-pentanone	ND	200		µg/L	20	7/10/2017 9:37:00 PM	R44107
Methylene Chloride	ND	60		µg/L	20	7/10/2017 9:37:00 PM	R44107
n-Butylbenzene	ND	60		µg/L	20	7/10/2017 9:37:00 PM	R44107
n-Propylbenzene	73	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
sec-Butylbenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Styrene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
tert-Butylbenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	40		µg/L	20	7/10/2017 9:37:00 PM	R44107
Tetrachloroethene (PCE)	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
trans-1,2-DCE	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
trans-1,3-Dichloropropene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2,3-Trichlorobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2,4-Trichlorobenzene	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,1,1-Trichloroethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,1,2-Trichloroethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Trichloroethene (TCE)	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Trichlorofluoromethane	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
1,2,3-Trichloropropane	ND	40		µg/L	20	7/10/2017 9:37:00 PM	R44107
Vinyl chloride	ND	20		µg/L	20	7/10/2017 9:37:00 PM	R44107
Xylenes, Total	1000	30		µg/L	20	7/10/2017 9:37:00 PM	R44107
Surr: 1,2-Dichloroethane-d4	108	70-130		%Rec	20	7/10/2017 9:37:00 PM	R44107
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	20	7/10/2017 9:37:00 PM	R44107
Surr: Dibromofluoromethane	109	70-130		%Rec	20	7/10/2017 9:37:00 PM	R44107
Surr: Toluene-d8	104	70-130		%Rec	20	7/10/2017 9:37:00 PM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering

**Project:** Fairview Station

**Lab ID:** 1707292-003

**Matrix:** AQUEOUS

**Client Sample ID:** MW-06

**Collection Date:** 7/6/2017 1:56:00 PM

**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	690	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Toluene	3900	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Ethylbenzene	2300	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Methyl tert-butyl ether (MTBE)	53	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2,4-Trimethylbenzene	2600	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,3,5-Trimethylbenzene	700	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2-Dichloroethane (EDC)	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Naphthalene	660	100		µg/L	50	7/10/2017 10:25:00 PM	R44107
1-Methylnaphthalene	ND	200		µg/L	50	7/10/2017 10:25:00 PM	R44107
2-Methylnaphthalene	210	200		µg/L	50	7/10/2017 10:25:00 PM	R44107
Acetone	ND	500		µg/L	50	7/10/2017 10:25:00 PM	R44107
Bromobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Bromodichloromethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Bromoform	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Bromomethane	ND	150		µg/L	50	7/10/2017 10:25:00 PM	R44107
2-Butanone	ND	500		µg/L	50	7/10/2017 10:25:00 PM	R44107
Carbon disulfide	ND	500		µg/L	50	7/10/2017 10:25:00 PM	R44107
Carbon Tetrachloride	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Chlorobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Chloroethane	ND	100		µg/L	50	7/10/2017 10:25:00 PM	R44107
Chloroform	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Chloromethane	ND	150		µg/L	50	7/10/2017 10:25:00 PM	R44107
2-Chlorotoluene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
4-Chlorotoluene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
cis-1,2-DCE	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
cis-1,3-Dichloropropene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	100		µg/L	50	7/10/2017 10:25:00 PM	R44107
Dibromochloromethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Dibromomethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2-Dichlorobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,3-Dichlorobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,4-Dichlorobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Dichlorodifluoromethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,1-Dichloroethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,1-Dichloroethene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2-Dichloropropane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,3-Dichloropropane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
2,2-Dichloropropane	ND	100		µg/L	50	7/10/2017 10:25:00 PM	R44107

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

**Qualifiers:** \* Value exceeds Maximum Contaminant Level.

D Sample Diluted Due to Matrix

H Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

PQL Practical Quantitative Limit

S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits Page 5 of 31

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-003

**Matrix:** AQUEOUS

**Client Sample ID:** MW-06

**Collection Date:** 7/6/2017 1:56:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Hexachlorobutadiene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
2-Hexanone	ND	500		µg/L	50	7/10/2017 10:25:00 PM	R44107
Isopropylbenzene	100	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
4-Isopropyltoluene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
4-Methyl-2-pentanone	ND	500		µg/L	50	7/10/2017 10:25:00 PM	R44107
Methylene Chloride	ND	150		µg/L	50	7/10/2017 10:25:00 PM	R44107
n-Butylbenzene	ND	150		µg/L	50	7/10/2017 10:25:00 PM	R44107
n-Propylbenzene	260	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
sec-Butylbenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Styrene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
tert-Butylbenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	100		µg/L	50	7/10/2017 10:25:00 PM	R44107
Tetrachloroethene (PCE)	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
trans-1,2-DCE	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
trans-1,3-Dichloropropene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2,3-Trichlorobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2,4-Trichlorobenzene	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,1,1-Trichloroethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,1,2-Trichloroethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Trichloroethene (TCE)	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Trichlorofluoromethane	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
1,2,3-Trichloropropane	ND	100		µg/L	50	7/10/2017 10:25:00 PM	R44107
Vinyl chloride	ND	50		µg/L	50	7/10/2017 10:25:00 PM	R44107
Xylenes, Total	13000	300		µg/L	200	7/13/2017 2:25:22 PM	W44213
Surr: 1,2-Dichloroethane-d4	107	70-130		%Rec	50	7/10/2017 10:25:00 PM	R44107
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	50	7/10/2017 10:25:00 PM	R44107
Surr: Dibromofluoromethane	113	70-130		%Rec	50	7/10/2017 10:25:00 PM	R44107
Surr: Toluene-d8	105	70-130		%Rec	50	7/10/2017 10:25:00 PM	R44107

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
D	Sample Diluted Due to Matrix	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	Page 6 of 31
PQL	Practical Quantitative Limit	P Sample pH Not In Range
S	% Recovery outside of range due to dilution or matrix	RL Reporting Detection Limit
		W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-004

**Matrix:** AQUEOUS

**Client Sample ID:** MW-07

**Collection Date:** 7/6/2017 12:55:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	8200	100		µg/L	100	7/10/2017 11:12:00 PM	R44107
Toluene	840	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Ethylbenzene	710	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Methyl tert-butyl ether (MTBE)	3400	100		µg/L	100	7/10/2017 11:12:00 PM	R44107
1,2,4-Trimethylbenzene	560	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,3,5-Trimethylbenzene	100	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2-Dichloroethane (EDC)	22	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Naphthalene	120	20		µg/L	10	7/10/2017 11:36:00 PM	R44107
1-Methylnaphthalene	ND	40		µg/L	10	7/10/2017 11:36:00 PM	R44107
2-Methylnaphthalene	ND	40		µg/L	10	7/10/2017 11:36:00 PM	R44107
Acetone	ND	100		µg/L	10	7/10/2017 11:36:00 PM	R44107
Bromobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Bromodichloromethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Bromoform	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Bromomethane	ND	30		µg/L	10	7/10/2017 11:36:00 PM	R44107
2-Butanone	ND	100		µg/L	10	7/10/2017 11:36:00 PM	R44107
Carbon disulfide	ND	100		µg/L	10	7/10/2017 11:36:00 PM	R44107
Carbon Tetrachloride	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Chlorobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Chloroethane	ND	20		µg/L	10	7/10/2017 11:36:00 PM	R44107
Chloroform	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Chloromethane	ND	30		µg/L	10	7/10/2017 11:36:00 PM	R44107
2-Chlorotoluene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
4-Chlorotoluene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
cis-1,2-DCE	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
cis-1,3-Dichloropropene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	7/10/2017 11:36:00 PM	R44107
Dibromochloromethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Dibromomethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2-Dichlorobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,3-Dichlorobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,4-Dichlorobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Dichlorodifluoromethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,1-Dichloroethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,1-Dichloroethene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2-Dichloropropane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,3-Dichloropropane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
2,2-Dichloropropane	ND	20		µg/L	10	7/10/2017 11:36:00 PM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-004

**Matrix:** AQUEOUS

**Client Sample ID:** MW-07

**Collection Date:** 7/6/2017 12:55:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Hexachlorobutadiene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
2-Hexanone	ND	100		µg/L	10	7/10/2017 11:36:00 PM	R44107
Isopropylbenzene	26	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
4-Isopropyltoluene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
4-Methyl-2-pentanone	ND	100		µg/L	10	7/10/2017 11:36:00 PM	R44107
Methylene Chloride	ND	30		µg/L	10	7/10/2017 11:36:00 PM	R44107
n-Butylbenzene	ND	30		µg/L	10	7/10/2017 11:36:00 PM	R44107
n-Propylbenzene	67	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
sec-Butylbenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Styrene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
tert-Butylbenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	7/10/2017 11:36:00 PM	R44107
Tetrachloroethene (PCE)	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
trans-1,2-DCE	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
trans-1,3-Dichloropropene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2,3-Trichlorobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2,4-Trichlorobenzene	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,1,1-Trichloroethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,1,2-Trichloroethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Trichloroethene (TCE)	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Trichlorofluoromethane	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
1,2,3-Trichloropropane	ND	20		µg/L	10	7/10/2017 11:36:00 PM	R44107
Vinyl chloride	ND	10		µg/L	10	7/10/2017 11:36:00 PM	R44107
Xylenes, Total	1000	15		µg/L	10	7/10/2017 11:36:00 PM	R44107
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	10	7/10/2017 11:36:00 PM	R44107
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	10	7/10/2017 11:36:00 PM	R44107
Surr: Dibromofluoromethane	111	70-130		%Rec	10	7/10/2017 11:36:00 PM	R44107
Surr: Toluene-d8	104	70-130		%Rec	10	7/10/2017 11:36:00 PM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-005

**Matrix:** AQUEOUS

**Client Sample ID:** MW-13

**Collection Date:** 7/6/2017 12:30:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	1900	100		µg/L	100	7/11/2017 1:35:00 AM	R44107
Toluene	11	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Ethylbenzene	190	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Methyl tert-butyl ether (MTBE)	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2,4-Trimethylbenzene	51	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,3,5-Trimethylbenzene	10	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2-Dichloroethane (EDC)	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2-Dibromoethane (EDB)	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Naphthalene	36	20		µg/L	10	7/11/2017 1:59:00 AM	R44107
1-Methylnaphthalene	ND	40		µg/L	10	7/11/2017 1:59:00 AM	R44107
2-Methylnaphthalene	ND	40		µg/L	10	7/11/2017 1:59:00 AM	R44107
Acetone	ND	100		µg/L	10	7/11/2017 1:59:00 AM	R44107
Bromobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Bromodichloromethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Bromoform	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Bromomethane	ND	30		µg/L	10	7/11/2017 1:59:00 AM	R44107
2-Butanone	ND	100		µg/L	10	7/11/2017 1:59:00 AM	R44107
Carbon disulfide	ND	100		µg/L	10	7/11/2017 1:59:00 AM	R44107
Carbon Tetrachloride	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Chlorobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Chloroethane	ND	20		µg/L	10	7/11/2017 1:59:00 AM	R44107
Chloroform	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Chloromethane	ND	30		µg/L	10	7/11/2017 1:59:00 AM	R44107
2-Chlorotoluene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
4-Chlorotoluene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
cis-1,2-DCE	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
cis-1,3-Dichloropropene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2-Dibromo-3-chloropropane	ND	20		µg/L	10	7/11/2017 1:59:00 AM	R44107
Dibromochloromethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Dibromomethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2-Dichlorobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,3-Dichlorobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,4-Dichlorobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Dichlorodifluoromethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,1-Dichloroethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,1-Dichloroethene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2-Dichloropropane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,3-Dichloropropane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
2,2-Dichloropropane	ND	20		µg/L	10	7/11/2017 1:59:00 AM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-005

**Matrix:** AQUEOUS

**Client Sample ID:** MW-13

**Collection Date:** 7/6/2017 12:30:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Hexachlorobutadiene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
2-Hexanone	ND	100		µg/L	10	7/11/2017 1:59:00 AM	R44107
Isopropylbenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
4-Isopropyltoluene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
4-Methyl-2-pentanone	ND	100		µg/L	10	7/11/2017 1:59:00 AM	R44107
Methylene Chloride	ND	30		µg/L	10	7/11/2017 1:59:00 AM	R44107
n-Butylbenzene	ND	30		µg/L	10	7/11/2017 1:59:00 AM	R44107
n-Propylbenzene	16	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
sec-Butylbenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Styrene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
tert-Butylbenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,1,1,2-Tetrachloroethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,1,2,2-Tetrachloroethane	ND	20		µg/L	10	7/11/2017 1:59:00 AM	R44107
Tetrachloroethene (PCE)	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
trans-1,2-DCE	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
trans-1,3-Dichloropropene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2,3-Trichlorobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2,4-Trichlorobenzene	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,1,1-Trichloroethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,1,2-Trichloroethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Trichloroethene (TCE)	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Trichlorofluoromethane	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
1,2,3-Trichloropropane	ND	20		µg/L	10	7/11/2017 1:59:00 AM	R44107
Vinyl chloride	ND	10		µg/L	10	7/11/2017 1:59:00 AM	R44107
Xylenes, Total	ND	15		µg/L	10	7/11/2017 1:59:00 AM	R44107
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	10	7/11/2017 1:59:00 AM	R44107
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	10	7/11/2017 1:59:00 AM	R44107
Surr: Dibromofluoromethane	110	70-130		%Rec	10	7/11/2017 1:59:00 AM	R44107
Surr: Toluene-d8	103	70-130		%Rec	10	7/11/2017 1:59:00 AM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quantitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-006

**Matrix:** AQUEOUS

**Client Sample ID:** MW-16

**Collection Date:** 7/6/2017 12:01:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	1700	20		µg/L	20	7/11/2017 5:19:00 PM	R44161
Toluene	490	20		µg/L	20	7/11/2017 5:19:00 PM	R44161
Ethylbenzene	450	20		µg/L	20	7/11/2017 5:19:00 PM	R44161
Methyl tert-butyl ether (MTBE)	29	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2,4-Trimethylbenzene	380	20		µg/L	20	7/11/2017 5:19:00 PM	R44161
1,3,5-Trimethylbenzene	56	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Naphthalene	130	40		µg/L	20	7/11/2017 5:19:00 PM	R44161
1-Methylnaphthalene	30	4.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
2-Methylnaphthalene	39	4.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Acetone	ND	10		µg/L	1	7/11/2017 2:23:00 AM	R44107
Bromobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Bromodichloromethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Bromoform	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Bromomethane	ND	3.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
2-Butanone	ND	10		µg/L	1	7/11/2017 2:23:00 AM	R44107
Carbon disulfide	ND	10		µg/L	1	7/11/2017 2:23:00 AM	R44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Chlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Chloroethane	ND	2.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Chloroform	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Chloromethane	ND	3.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Dibromochloromethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Dibromomethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/11/2017 2:23:00 AM	R44107

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-006

**Matrix:** AQUEOUS

**Client Sample ID:** MW-16

**Collection Date:** 7/6/2017 12:01:00 PM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
2-Hexanone	ND	10		µg/L	1	7/11/2017 2:23:00 AM	R44107
Isopropylbenzene	23	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
4-Isopropyltoluene	2.1	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/11/2017 2:23:00 AM	R44107
Methylene Chloride	ND	3.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
n-Butylbenzene	5.8	3.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
n-Propylbenzene	55	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
sec-Butylbenzene	3.9	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Styrene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Vinyl chloride	ND	1.0		µg/L	1	7/11/2017 2:23:00 AM	R44107
Xylenes, Total	500	30		µg/L	20	7/11/2017 5:19:00 PM	R44161
Surr: 1,2-Dichloroethane-d4	102	70-130	%Rec		1	7/11/2017 2:23:00 AM	R44107
Surr: 4-Bromofluorobenzene	109	70-130	%Rec		1	7/11/2017 2:23:00 AM	R44107
Surr: Dibromofluoromethane	106	70-130	%Rec		1	7/11/2017 2:23:00 AM	R44107
Surr: Toluene-d8	99.9	70-130	%Rec		1	7/11/2017 2:23:00 AM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-007

**Matrix:** AQUEOUS

**Client Sample ID:** MW-17

**Collection Date:** 7/6/2017 10:24:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Toluene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Ethylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Naphthalene	ND	2.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Acetone	ND	10		µg/L	1	7/11/2017 2:47:00 AM	R44107
Bromobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Bromodichloromethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Bromoform	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Bromomethane	ND	3.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
2-Butanone	ND	10		µg/L	1	7/11/2017 2:47:00 AM	R44107
Carbon disulfide	ND	10		µg/L	1	7/11/2017 2:47:00 AM	R44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Chlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Chloroethane	ND	2.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Chloroform	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Chloromethane	ND	3.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Dibromochloromethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Dibromomethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/11/2017 2:47:00 AM	R44107

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-007

**Matrix:** AQUEOUS

**Client Sample ID:** MW-17

**Collection Date:** 7/6/2017 10:24:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
2-Hexanone	ND	10		µg/L	1	7/11/2017 2:47:00 AM	R44107
Isopropylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/11/2017 2:47:00 AM	R44107
Methylene Chloride	ND	3.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
n-Butylbenzene	ND	3.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
n-Propylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Styrene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Vinyl chloride	ND	1.0		µg/L	1	7/11/2017 2:47:00 AM	R44107
Xylenes, Total	ND	1.5		µg/L	1	7/11/2017 2:47:00 AM	R44107
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	7/11/2017 2:47:00 AM	R44107
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	7/11/2017 2:47:00 AM	R44107
Surr: Dibromofluoromethane	108	70-130		%Rec	1	7/11/2017 2:47:00 AM	R44107
Surr: Toluene-d8	102	70-130		%Rec	1	7/11/2017 2:47:00 AM	R44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-008

**Matrix:** AQUEOUS

**Client Sample ID:** MW-19

**Collection Date:** 7/6/2017 11:26:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	27	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Toluene	1.7	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Ethylbenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2,4-Trimethylbenzene	9.2	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,3,5-Trimethylbenzene	3.1	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2-Dichloroethane (EDC)	2.2	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Naphthalene	2.2	2.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Acetone	ND	10		µg/L	1	7/11/2017 3:11:00 AM	A44107
Bromobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Bromodichloromethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Bromoform	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Bromomethane	ND	3.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
2-Butanone	ND	10		µg/L	1	7/11/2017 3:11:00 AM	A44107
Carbon disulfide	ND	10		µg/L	1	7/11/2017 3:11:00 AM	A44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Chlorobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Chloroethane	ND	2.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Chloroform	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Chloromethane	ND	3.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Dibromochloromethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Dibromomethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/11/2017 3:11:00 AM	A44107

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-008

**Matrix:** AQUEOUS

**Client Sample ID:** MW-19

**Collection Date:** 7/6/2017 11:26:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
2-Hexanone	ND	10		µg/L	1	7/11/2017 3:11:00 AM	A44107
Isopropylbenzene	1.8	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/11/2017 3:11:00 AM	A44107
Methylene Chloride	ND	3.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
n-Butylbenzene	ND	3.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
n-Propylbenzene	1.1	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Styrene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Vinyl chloride	ND	1.0		µg/L	1	7/11/2017 3:11:00 AM	A44107
Xylenes, Total	5.1	1.5		µg/L	1	7/11/2017 3:11:00 AM	A44107
Surr: 1,2-Dichloroethane-d4	98.0	70-130		%Rec	1	7/11/2017 3:11:00 AM	A44107
Surr: 4-Bromofluorobenzene	112	70-130		%Rec	1	7/11/2017 3:11:00 AM	A44107
Surr: Dibromofluoromethane	105	70-130		%Rec	1	7/11/2017 3:11:00 AM	A44107
Surr: Toluene-d8	103	70-130		%Rec	1	7/11/2017 3:11:00 AM	A44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-009

**Matrix:** AQUEOUS

**Client Sample ID:** MW-20

**Collection Date:** 7/6/2017 9:53:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Toluene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Ethylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Naphthalene	ND	2.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Acetone	ND	10		µg/L	1	7/11/2017 4:22:00 AM	A44107
Bromobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Bromodichloromethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Bromoform	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Bromomethane	ND	3.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
2-Butanone	ND	10		µg/L	1	7/11/2017 4:22:00 AM	A44107
Carbon disulfide	ND	10		µg/L	1	7/11/2017 4:22:00 AM	A44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Chlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Chloroethane	ND	2.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Chloroform	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Chloromethane	ND	3.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Dibromochloromethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Dibromomethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/11/2017 4:22:00 AM	A44107

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-009

**Matrix:** AQUEOUS

**Client Sample ID:** MW-20

**Collection Date:** 7/6/2017 9:53:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
2-Hexanone	ND	10		µg/L	1	7/11/2017 4:22:00 AM	A44107
Isopropylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/11/2017 4:22:00 AM	A44107
Methylene Chloride	ND	3.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
n-Butylbenzene	ND	3.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
n-Propylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Styrene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Vinyl chloride	ND	1.0		µg/L	1	7/11/2017 4:22:00 AM	A44107
Xylenes, Total	ND	1.5		µg/L	1	7/11/2017 4:22:00 AM	A44107
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	7/11/2017 4:22:00 AM	A44107
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	7/11/2017 4:22:00 AM	A44107
Surr: Dibromofluoromethane	111	70-130		%Rec	1	7/11/2017 4:22:00 AM	A44107
Surr: Toluene-d8	102	70-130		%Rec	1	7/11/2017 4:22:00 AM	A44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-010

**Matrix:** AQUEOUS

**Client Sample ID:** MW-21

**Collection Date:** 7/6/2017 9:27:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Toluene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Ethylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Naphthalene	ND	2.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Acetone	ND	10		µg/L	1	7/11/2017 4:46:00 AM	A44107
Bromobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Bromodichloromethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Bromoform	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Bromomethane	ND	3.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
2-Butanone	ND	10		µg/L	1	7/11/2017 4:46:00 AM	A44107
Carbon disulfide	ND	10		µg/L	1	7/11/2017 4:46:00 AM	A44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Chlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Chloroethane	ND	2.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Chloroform	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Chloromethane	ND	3.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Dibromochloromethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Dibromomethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/11/2017 4:46:00 AM	A44107

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

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank

E Value above quantitation range

J Analyte detected below quantitation limits

P Sample pH Not In Range

RL Reporting Detection Limit

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-010

**Matrix:** AQUEOUS

**Client Sample ID:** MW-21

**Collection Date:** 7/6/2017 9:27:00 AM  
**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
2-Hexanone	ND	10		µg/L	1	7/11/2017 4:46:00 AM	A44107
Isopropylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/11/2017 4:46:00 AM	A44107
Methylene Chloride	ND	3.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
n-Butylbenzene	ND	3.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
n-Propylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Styrene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Vinyl chloride	ND	1.0		µg/L	1	7/11/2017 4:46:00 AM	A44107
Xylenes, Total	ND	1.5		µg/L	1	7/11/2017 4:46:00 AM	A44107
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/11/2017 4:46:00 AM	A44107
Surr: 4-Bromofluorobenzene	105	70-130		%Rec	1	7/11/2017 4:46:00 AM	A44107
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/11/2017 4:46:00 AM	A44107
Surr: Toluene-d8	101	70-130		%Rec	1	7/11/2017 4:46:00 AM	A44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering

**Client Sample ID:** TRIP BLANK

**Project:** Fairview Station

**Collection Date:**

**Lab ID:** 1707292-011

**Matrix:** TRIP BLANK

**Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Toluene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Ethylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Naphthalene	ND	2.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
2-Methylnaphthalene	ND	4.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Acetone	ND	10		µg/L	1	7/11/2017 5:10:00 AM	A44107
Bromobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Bromodichloromethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Bromoform	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Bromomethane	ND	3.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
2-Butanone	ND	10		µg/L	1	7/11/2017 5:10:00 AM	A44107
Carbon disulfide	ND	10		µg/L	1	7/11/2017 5:10:00 AM	A44107
Carbon Tetrachloride	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Chlorobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Chloroethane	ND	2.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Chloroform	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Chloromethane	ND	3.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
2-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
4-Chlorotoluene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
cis-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Dibromochloromethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Dibromomethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,3-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,4-Dichlorobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Dichlorodifluoromethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,1-Dichloroethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,1-Dichloroethene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,3-Dichloropropane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
2,2-Dichloropropane	ND	2.0		µg/L	1	7/11/2017 5:10:00 AM	A44107

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

D Sample Diluted Due to Matrix

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

P Sample pH Not In Range

PQL Practical Quanitative Limit

RL Reporting Detection Limit

S % Recovery outside of range due to dilution or matrix

W Sample container temperature is out of limit as specified

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1707292

Date Reported: 7/17/2017

**CLIENT:** EA Engineering  
**Project:** Fairview Station  
**Lab ID:** 1707292-011

**Client Sample ID:** TRIP BLANK  
**Collection Date:**  
**Matrix:** TRIP BLANK    **Received Date:** 7/6/2017 3:54:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,1-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Hexachlorobutadiene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
2-Hexanone	ND	10		µg/L	1	7/11/2017 5:10:00 AM	A44107
Isopropylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
4-Isopropyltoluene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
4-Methyl-2-pentanone	ND	10		µg/L	1	7/11/2017 5:10:00 AM	A44107
Methylene Chloride	ND	3.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
n-Butylbenzene	ND	3.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
n-Propylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
sec-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Styrene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
tert-Butylbenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
trans-1,2-DCE	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,1,1-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,1,2-Trichloroethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Trichloroethene (TCE)	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Trichlorofluoromethane	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
1,2,3-Trichloropropane	ND	2.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Vinyl chloride	ND	1.0		µg/L	1	7/11/2017 5:10:00 AM	A44107
Xylenes, Total	ND	1.5		µg/L	1	7/11/2017 5:10:00 AM	A44107
Surr: 1,2-Dichloroethane-d4	104	70-130		%Rec	1	7/11/2017 5:10:00 AM	A44107
Surr: 4-Bromofluorobenzene	107	70-130		%Rec	1	7/11/2017 5:10:00 AM	A44107
Surr: Dibromofluoromethane	106	70-130		%Rec	1	7/11/2017 5:10:00 AM	A44107
Surr: Toluene-d8	101	70-130		%Rec	1	7/11/2017 5:10:00 AM	A44107

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
	D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	100ng Ics	SampType: LCS4			TestCode: EPA Method 8260B: VOLATILES						
Client ID:	BatchQC	Batch ID: R44107			RunNo: 44107						
Prep Date:		Analysis Date: 7/10/2017			SeqNo: 1391695		Units: µg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		20	1.0	20.00	0	102	70	130			
Toluene		20	1.0	20.00	0	98.8	70	130			
Ethylbenzene		20	1.0	20.00	0	99.6	70	130			
Methyl tert-butyl ether (MTBE)		39	1.0	40.00	0	97.6	70	130			
1,2,4-Trimethylbenzene		20	1.0	20.00	0	100	70	130			
1,3,5-Trimethylbenzene		20	1.0	20.00	0	98.6	70	130			
1,2-Dichloroethane (EDC)		20	1.0	20.00	0	99.9	62.2	143			
1,2-Dibromoethane (EDB)		19	1.0	20.00	0	96.6	70	130			
Naphthalene		18	2.0	20.00	0	89.1	70	130			
1-Methylnaphthalene		18	4.0	20.00	0	91.3	60	140			
2-Methylnaphthalene		14	4.0	20.00	0	68.4	60	140			
Acetone		41	10	40.00	0	102	60	140			
Bromobenzene		20	1.0	20.00	0	101	70	130			
Bromodichloromethane		21	1.0	20.00	0	105	70	130			
Bromoform		20	1.0	20.00	0	98.0	70	130			
Bromomethane		19	3.0	20.00	0	95.8	60	140			
2-Butanone		46	10	40.00	0	114	60	140			
Carbon disulfide		38	10	40.00	0	94.0	60	140			
Carbon Tetrachloride		20	1.0	20.00	0	102	70	130			
Chlorobenzene		20	1.0	20.00	0	100	70	130			
Chloroethane		20	2.0	20.00	0	97.6	60	140			
Chloroform		21	1.0	20.00	0	104	70	130			
Chloromethane		17	3.0	20.00	0	85.8	60	140			
2-Chlorotoluene		20	1.0	20.00	0	99.7	70	130			
4-Chlorotoluene		20	1.0	20.00	0	99.3	70	130			
cis-1,2-DCE		21	1.0	20.00	0	107	70	130			
cis-1,3-Dichloropropene		19	1.0	20.00	0	94.3	70	130			
1,2-Dibromo-3-chloropropane		20	2.0	20.00	0	98.0	70	130			
Dibromochloromethane		19	1.0	20.00	0	93.7	70	130			
Dibromomethane		21	1.0	20.00	0	104	70	130			
1,2-Dichlorobenzene		20	1.0	20.00	0	98.0	70	130			
1,3-Dichlorobenzene		20	1.0	20.00	0	101	70	130			
1,4-Dichlorobenzene		20	1.0	20.00	0	101	67.2	141			
Dichlorodifluoromethane		15	1.0	20.00	0	77.4	60	140			
1,1-Dichloroethane		20	1.0	20.00	0	100	52.6	157			
1,1-Dichloroethene		20	1.0	20.00	0	97.5	70	130			
1,2-Dichloropropane		20	1.0	20.00	0	101	63.7	138			
1,3-Dichloropropane		19	1.0	20.00	0	96.6	70	130			
2,2-Dichloropropane		21	2.0	20.00	0	104	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	100ng lcs	SampType:	LCS4	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	BatchQC	Batch ID:	R44107	RunNo: 44107						
Prep Date:		Analysis Date:	7/10/2017	SeqNo: 1391695 Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,1-Dichloropropene	20	1.0	20.00	0	102	70	130			
Hexachlorobutadiene	17	1.0	20.00	0	86.8	70	130			
2-Hexanone	37	10	40.00	0	92.1	60	140			
Isopropylbenzene	20	1.0	20.00	0	99.3	70	130			
4-Isopropyltoluene	20	1.0	20.00	0	101	70	130			
4-Methyl-2-pentanone	39	10	40.00	0	96.9	60	140			
Methylene Chloride	20	3.0	20.00	0	101	70	130			
n-Butylbenzene	19	3.0	20.00	0	93.4	70	130			
n-Propylbenzene	20	1.0	20.00	0	97.6	70	130			
sec-Butylbenzene	19	1.0	20.00	0	95.8	70	130			
Styrene	20	1.0	20.00	0	100	70	130			
tert-Butylbenzene	20	1.0	20.00	0	98.3	70	130			
1,1,1,2-Tetrachloroethane	20	1.0	20.00	0	98.3	70	130			
1,1,2,2-Tetrachloroethane	20	2.0	20.00	0	101	65.9	133			
Tetrachloroethene (PCE)	21	1.0	20.00	0	103	70	130			
trans-1,2-DCE	20	1.0	20.00	0	98.9	70	130			
trans-1,3-Dichloropropene	18	1.0	20.00	0	91.4	70	130			
1,2,3-Trichlorobenzene	18	1.0	20.00	0	91.2	70	130			
1,2,4-Trichlorobenzene	18	1.0	20.00	0	90.7	70	130			
1,1,1-Trichloroethane	20	1.0	20.00	0	102	70	130			
1,1,2-Trichloroethane	19	1.0	20.00	0	96.9	70	130			
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130			
Trichlorofluoromethane	20	1.0	20.00	0	100	70	130			
1,2,3-Trichloropropane	20	2.0	20.00	0	99.7	69.7	129			
Vinyl chloride	18	1.0	20.00	0	90.2	70	130			
Xylenes, Total	60	1.5	60.00	0	99.3	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		101	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		106	70	130			
Surr: Dibromofluoromethane	11		10.00		109	70	130			
Surr: Toluene-d8	11		10.00		105	70	130			

Sample ID	RB	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	R44107	RunNo: 44107						
Prep Date:		Analysis Date:	7/10/2017	SeqNo: 1391703 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								

<b>Qualifiers:</b>										
* Value exceeds Maximum Contaminant Level.										
D Sample Diluted Due to Matrix										
H Holding times for preparation or analysis exceeded										
ND Not Detected at the Reporting Limit										
PQL Practical Quantitative Limit										
S % Recovery outside of range due to dilution or matrix										
B Analyte detected in the associated Method Blank										
E Value above quantitation range										
J Analyte detected below quantitation limits										
P Sample pH Not In Range										
RL Reporting Detection Limit										
W Sample container temperature is out of limit as specified										

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	RB	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	R44107	RunNo: 44107							
Prep Date:		Analysis Date:	7/10/2017	SeqNo:	1391703	Units:	µg/L				
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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								
1,1-Dichloropropene		ND	1.0								
Hexachlorobutadiene		ND	1.0								
2-Hexanone		ND	10								

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	RB	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	R44107	RunNo: 44107							
Prep Date:		Analysis Date:	7/10/2017	SeqNo: 1391703 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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	11		10.00		105	70	130				
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130				
Surr: Dibromofluoromethane	11		10.00		110	70	130				
Surr: Toluene-d8	10		10.00		103	70	130				

Sample ID	100ng lcs2	SampType:	LCS	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	LCSW	Batch ID:	A44107	RunNo: 44107							
Prep Date:		Analysis Date:	7/11/2017	SeqNo: 1391769 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		23	1.0	20.00	0	115	70	130			
Toluene		21	1.0	20.00	0	105	70	130			
Chlorobenzene		21	1.0	20.00	0	106	70	130			
1,1-Dichloroethene		25	1.0	20.00	0	126	70	130			
Trichloroethene (TCE)		22	1.0	20.00	0	111	70	130			
Surr: 1,2-Dichloroethane-d4	11		10.00		108	70	130				

Qualifiers:										
*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank							
D	Sample Diluted Due to Matrix	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	P	Sample pH Not In Range							
PQL	Practical Quantitative Limit	RL	Reporting Detection Limit							
S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified							

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	100ng lcs2	SampType:	LCS	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	A44107	RunNo: 44107						
Prep Date:		Analysis Date:	7/11/2017	SeqNo: 1391769 Units: µg/L						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	11		10.00		109	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	10		10.00		103	70	130			

Sample ID	rb5	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	A44107	RunNo: 44107						
Prep Date:		Analysis Date:	7/11/2017	SeqNo: 1391770 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							

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	rb5	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	A44107	RunNo: 44107						
Prep Date:		Analysis Date:	7/11/2017	SeqNo:	1391770	Units:	µg/L			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit
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							
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	11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		105	70	130			
Surr: Dibromofluoromethane	11		10.00		114	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID 1707292-008ams		SampType: MS		TestCode: EPA Method 8260B: VOLATILES						
Client ID: MW-19		Batch ID: A44107		RunNo: 44107						
Prep Date:		Analysis Date: 7/11/2017		SeqNo: 1391776		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	50	1.0	20.00	27.01	117	70	130			
Toluene	22	1.0	20.00	1.732	101	70	130			
Chlorobenzene	20	1.0	20.00	0	101	70	130			
1,1-Dichloroethene	23	1.0	20.00	0	115	70	130			
Trichloroethene (TCE)	22	1.0	20.00	0.6180	107	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		99.8	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		113	70	130			
Surr: Dibromofluoromethane	11		10.00		105	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID 1707292-008amsd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES						
Client ID: MW-19		Batch ID: A44107		RunNo: 44107						
Prep Date:		Analysis Date: 7/11/2017		SeqNo: 1391777		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	50	1.0	20.00	27.01	113	70	130	1.44	20	
Toluene	22	1.0	20.00	1.732	99.0	70	130	2.22	20	
Chlorobenzene	20	1.0	20.00	0	100	70	130	0.864	20	
1,1-Dichloroethene	22	1.0	20.00	0	111	70	130	3.20	20	
Trichloroethene (TCE)	21	1.0	20.00	0.6180	102	70	130	4.76	20	
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		112	70	130	0	0	
Surr: Dibromofluoromethane	10		10.00		103	70	130	0	0	
Surr: Toluene-d8	10		10.00		102	70	130	0	0	

Sample ID 100ng lcs		SampType: LCS4		TestCode: EPA Method 8260B: VOLATILES						
Client ID: BatchQC		Batch ID: R44161		RunNo: 44161						
Prep Date:		Analysis Date: 7/11/2017		SeqNo: 1393699		Units: µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	0	103	70	130			
Toluene	20	1.0	20.00	0	99.5	70	130			
Ethylbenzene	20	1.0	20.00	0	98.7	70	130			
1,2,4-Trimethylbenzene	20	1.0	20.00	0	101	70	130			
Naphthalene	19	2.0	20.00	0	96.2	70	130			
Xylenes, Total	60	1.5	60.00	0	100	70	130			
Surr: 1,2-Dichloroethane-d4	10		10.00		102	70	130			
Surr: 4-Bromofluorobenzene	11		10.00		108	70	130			
Surr: Dibromofluoromethane	11		10.00		108	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	R44161	RunNo:	44161					
Prep Date:		Analysis Date:	7/11/2017	SeqNo:	1393702 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								
1,2,4-Trimethylbenzene	ND	1.0								
Naphthalene	ND	2.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	10	10.00		103	70	130				
Surr: 4-Bromofluorobenzene	11	10.00		106	70	130				
Surr: Dibromofluoromethane	11	10.00		109	70	130				
Surr: Toluene-d8	10	10.00		102	70	130				

Sample ID	100ng lcs2	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	LCSW	Batch ID:	A44161	RunNo:	44161					
Prep Date:		Analysis Date:	7/12/2017	SeqNo:	1393730 Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.9	10.00		99.1	70	130				
Surr: 4-Bromofluorobenzene	11	10.00		107	70	130				
Surr: Dibromofluoromethane	10	10.00		103	70	130				
Surr: Toluene-d8	10	10.00		103	70	130				

Sample ID	rb2	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	A44161	RunNo:	44161					
Prep Date:		Analysis Date:	7/12/2017	SeqNo:	1393731 Units: %Rec					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	9.7	10.00		97.1	70	130				
Surr: 4-Bromofluorobenzene	11	10.00		106	70	130				
Surr: Dibromofluoromethane	10	10.00		104	70	130				
Surr: Toluene-d8	10	10.00		103	70	130				

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES					
Client ID:	PBW	Batch ID:	W44213	RunNo:	44213					
Prep Date:		Analysis Date:	7/14/2017	SeqNo:	1395682 Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	11	10.00		113	70	130				
Surr: 4-Bromofluorobenzene	9.3	10.00		92.6	70	130				
Surr: Dibromofluoromethane	11	10.00		108	70	130				

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quantitative Limit
- S % Recovery outside of range due to dilution or matrix
- B Analyte detected in the associated Method Blank
- E Value above quantitation range
- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Detection Limit
- W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1707292

17-Jul-17

**Client:** EA Engineering  
**Project:** Fairview Station

Sample ID	rb1	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	W44213	RunNo:	44213						
Prep Date:		Analysis Date:	7/14/2017	SeqNo:	1395682 Units: µg/L						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: Toluene-d8		10		10.00		104	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	LCSW	Batch ID:	W44213	RunNo:	44213						
Prep Date:		Analysis Date:	7/13/2017	SeqNo:	1395683 Units: %Rec						
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4		11		10.00		109	70	130			
Surr: 4-Bromofluorobenzene		9.7		10.00		96.9	70	130			
Surr: Dibromofluoromethane		10		10.00		104	70	130			
Surr: Toluene-d8		11		10.00		105	70	130			

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
PQL Practical Quantitative Limit  
S % Recovery outside of range due to dilution or matrix

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Detection Limit  
W Sample container temperature is out of limit as specified

## Sample Log-In Check List

Client Name: EA Engineering Alb

Work Order Number: 1707292

RcptNo: 1

Received By: Sophia Campuzano

7/6/2017 3:54:00 PM

*Sophia Campuzano*

Completed By: Ashley Gallegos

7/7/2017 2:16:43 PM

*AG*

Reviewed By: *MC*

7/10/17

### 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   
Samples were collected the same day and chilled.
  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: <input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> 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	11.4	Good	Not Present			



## **APPENDIX B**

### **FIELD FORMS**





**EA Engineering, Science, and Technology**  
320 Gold Avenue SW, Suite 1300  
Albuquerque, NM 87102  
Phone: (505) 224-9013

## **MONITOR WELL SAMPLING FIELD FORM**

## FLUID LEVEL DATA

Well ID	<u>MW-02</u>
Site	<u>Fair View</u>
Depth to PSH	<u>16.21</u> Feet
Depth to water	<u>19.06</u> Feet
Total depth	_____ Feet
NAPL thickness	<u>7.85</u> Feet

Date gauged  
Time gauged

7-6-17  
0954

Well diameter 2 Inches

After Bailing NAPL

Depth to PSH 17.02 Feet

Depth to water 14.37 Feet

NAPL thickness 0.35 Feet

NAPL Recovered 22.0 Gallons

## GROUNDWATER SAMPLING DATA

#### Time/date purged

### Purge Method

Actual purge volume \_\_\_\_\_ gal.

Field measurements stabilized within  $\pm 10\%$ ? \_\_\_\_\_

**Time/date sampled**

Purged/sampled by

C. Montoya

## Sample method

## Requested analyses

Comments/observations Skimmer Full 3/4 Water 1/4 NAPL, Spiked

Sister to the King 32 miles S.

Comments/observations Skimmer full 3/4 Water 1/4 NAPL, soaked sponge in NAPL 30 mins

## Well Casing Volumes

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





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Phone: (505) 224-9013

## MONITOR WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-4</u>	Date gauged	<u>4-6-12</u>
Site	<u>Farrvier Station</u>	Time gauged	<u>1040</u>
Depth to PSH	<u>-</u> Feet	Well diameter	<u>2</u> Inches
Depth to water	<u>17.74</u> Feet	Height of fluid column	<u>9.75</u> Feet
Total depth	<u>27.09</u> Feet	Volume in well	<u>1.66</u> Gallons
NAPL thickness	<u>-</u> Feet		
		(3 well volumes =	<u>4.97</u> gallons)

## GROUNDWATER SAMPLING DATA

Actual purge volume 5.00 gal. Field measurements stabilized within  $\pm 10\%$ ? N

Time/date sampled 1056 7-6-17 Purged/sampled by C. Smith

Sample method Disc穿刺 Darter

Requested analyses analysis

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

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<sup>1</sup> See, for example, the discussion of the relationship between the U.S. and the European Union in the final section of this paper.

## Well Casing Volumes

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



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## **MONITOR WELL SAMPLING FIELD FORM**

## FLUID LEVEL DATA

Well ID	<u>MW-05</u>		Date gauged	<u>7-6-17</u>
Site	<u>Fairview Station</u>		Time gauged	<u>1314</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>16.38</u> Feet	Height of fluid column	<u>5.75</u> Feet	Depth to PSH _____ Feet
Total depth	<u>22.13</u> Feet	Volume in well	<u>0.98</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>—</u> Feet	(3 well volumes = <u>2.93</u> gallons)		
				NAPL Recovered _____ Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged 1316 7-6-14 Purge Method Hand Bail

Actual purge volume 1.15 gal. Field measurements stabilized within  $\pm 10\%$ ?

Time/date sampled 1326 7-6-14 Purged/sampled by C. Smith

Sample method Disposable Bag

Requested analyses 8260 B

Barked Drg C ~ 1.25 gal

[View Details](#) | [Edit](#) | [Delete](#)





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## **MONITOR WELL SAMPLING FIELD FORM**

## FLUID LEVEL DATA

Well ID	<u>MW-06</u>		Date gauged	<u>7-6-17</u>
Site	<u>Fairview Station</u>		Time gauged	<u>1344</u>
Depth to PSH	<u>-</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>16.88</u> Feet	Height of fluid column	<u>7.04</u> Feet	Depth to PSH _____ Feet
Total depth	<u>23.92</u> Feet	Volume in well	<u>1.19</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>-</u> Feet	(3 well volumes = <u>3.59</u> gallons)		
				NAPL Recovered _____ Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged 1346 7-6-17 Purge Method Hand bail

Actual purge volume 2.75 gal. Field measurements stabilized within  $\pm 10\%$ ? \_\_\_\_\_

Time/date sampled 1356 7-6-17 Purged/sampled by C. Smith

## Pismaslic Baiter

Requested analyses 8h60 B

Gulfairn Sock, Darled Dry on 2.75 Gal

**Well Casing Volumes**

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



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## **MONITOR WELL SAMPLING FIELD FORM**

## FLUID LEVEL DATA

Well ID	<u>MW-07</u>		Date gauged	<u>7-6-17</u>
Site	<u>Fairview Station</u>		Time gauged	<u>1242</u>
Depth to PSH	<u>-</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>17.03</u> Feet	Height of fluid column	<u>7.66</u> Feet	Depth to PSH _____ Feet
Total depth	<u>24.69</u> Feet	Volume in well	<u>1.30</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>-</u> Feet	(3 well volumes = <u>3.90</u> gallons)		
				NAPL Recovered _____ Gallons

## **GROUNDWATER SAMPLING DATA**

Time/date purged 1244 7-6-17 Purge Method Hand Part

Actual purge volume 4.00 gal. Field measurements stabilized within  $\pm 10\%$ ? N

Time/date sampled 1455 7-6-11 Purged/sampled by C. Smith

Drs Basile Daltz

Requested analyses 8260

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









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## **MONITOR WELL SAMPLING FIELD FORM**

## FLUID LEVEL DATA

Well ID	<u>MW-11</u>
Site	<u>Fair View</u>
Depth to PSH	<u>17.47</u> Feet
Depth to water	<u>19.82</u> Feet
Total depth	_____ Feet
NAPL thickness	<u>2.35</u> Feet

Date gauged

7-617

Time gauged

Depth to PSH	<u>17.47</u> Feet	Well diameter	<u>2</u> Inches
Depth to water	<u>19.82</u> Feet	Height of fluid column	Feet
Total depth	_____ Feet	Volume in well	Gallons
NAPL thickness	<u>2.35</u> Feet		

After Bailing NAPL

Depth to PSH	<u>17.87</u>	Feet
Depth to water	<u>19.30</u>	Feet
NAPL thickness	<u>1.43</u>	Feet
NAPL Recovered	<u>5.0</u>	Gallons

(3 well volumes = \_\_\_\_\_ gallons)

## GROUNDWATER SAMPLING DATA

## Time/date purged

## Purge Method

Actual purge volume \_\_\_\_\_ gal.

Field measurements stabilized within  $\pm 10\%$ ?

Time/date sampled

Purged/sampled by

C. Montoya

## Sample method

## Requested analyses

Comments/observations Scale Standard 3-5"

Replaced Sock

## Well Casing Volumes

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





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## **MONITOR WELL SAMPLING FIELD FORM**

## FLUID LEVEL DATA

Well ID	MW-14
Site	Fairview
Depth to PSH	17.46 Feet
Depth to water	18.13 Feet
Total depth	Feet
NAPL thickness	0.67 Feet

Date gauged

7-6-17

Site Fairview

### Time gauged

130z

Depth to PSH 17.46 Feet

Well diameter 2 Inches

Depth to water 18.13 Feet

Height of fluid column \_\_\_\_\_ Feet

Total depth \_\_\_\_\_ Feet

Volume in well \_\_\_\_\_ Gallons

NAPL thickness 0.67 Feet

(3 well volumes = \_\_\_\_\_ gallons)

After Bailing NAPL

Depth to PSH 17.91 Feet

Depth to water 17.92 Feet

NAPL thickness 0.01 Feet

NAPL  
Recovered 149 Gallons

## GROUNDWATER SAMPLING DATA

Time/date purged \_\_\_\_\_

## Purge Method

Actual purge volume \_\_\_\_\_ gal.

Field measurements stabilized within  $\pm 10\%$ ?

Time/date sampled \_\_\_\_\_

Purged/sampled by C. M. DENTON

Sample method

#### Requested analyses

Comments/observations Sock stained ~~10"~~

sock stained  $\approx$  10"  
Replaced sock

### Well Casing Volumes

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





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## MONITOR WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-16</u>	Date gauged	<u>7-6-17</u>
Site	<u>Fairview Station</u>	Time gauged	<u>1149</u>
Depth to PSH	<u>—</u> Feet	Well diameter	<u>2</u> Inches
Depth to water	<u>16.98</u> Feet	Height of fluid column	<u>6.6</u> Feet
Total depth	<u>23.58</u> Feet	Volume in well	<u>1.12</u> Gallons
NAPL thickness	<u>—</u> Feet	(3 well volumes = <u>3.36</u> gallons)	
After Bailing NAPL			
Depth to PSH	<u> </u> Feet		
Depth to water	<u> </u> Feet		
NAPL thickness	<u> </u> Feet		
NAPL Recovered	<u> </u> Gallons		

## GROUNDWATER SAMPLING DATA

Time/date purged 1152 7-6-17 Purge Method

Actual purge volume 3.50 gal. Field measurements stabilized within  $\pm 10\%$ ? N

Time/date sampled 12/01 Purged/sampled by C. Smith

Sample method O<sub>2</sub> gas bubble Bailey

Requested analyses 8 n 60

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Digitized by srujanika@gmail.com







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## MONITOR WELL SAMPLING FIELD FORM

## FLUID LEVEL DATA

Well ID	<u>MW-19</u>		Date gauged	<u>7-6-17</u>
Site	<u>Fairview Station</u>		Time gauged	<u>11:10</u>
Depth to PSH	<u>-</u> Feet	Well diameter	<u>2</u> Inches	After Bailing NAPL
Depth to water	<u>17.92</u> Feet	Height of fluid column	<u>7.66</u> Feet	Depth to PSH _____ Feet
Total depth	<u>25.58</u> Feet	Volume in well	<u>1.20</u> Gallons	Depth to water _____ Feet
NAPL thickness	<u>-</u> Feet	(3 well volumes = <u>3.90</u> gallons)		
				NAPL Recovered _____ Gallons

## **GROUNDWATER SAMPLING DATA**

Actual purge volume 4,00 gal. Field measurements stabilized within  $\pm 10\%$ ? N

Time/date sampled 6/16 7-6-17 Purged/sampled by C. Smith

Sample method Disposable Dark

Requested analyses 8x60 y

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

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<sup>1</sup> See, e.g., *United States v. Ladd*, 100 F.2d 712, 715 (5th Cir. 1938) (“[T]he right to a trial by jury is a fundamental right which cannot be abridged or denied.”); *State v. Johnson*, 100 N.C. 1, 10 (1870) (“The right to a trial by jury is a fundamental right, which cannot be abridged or denied.”).

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

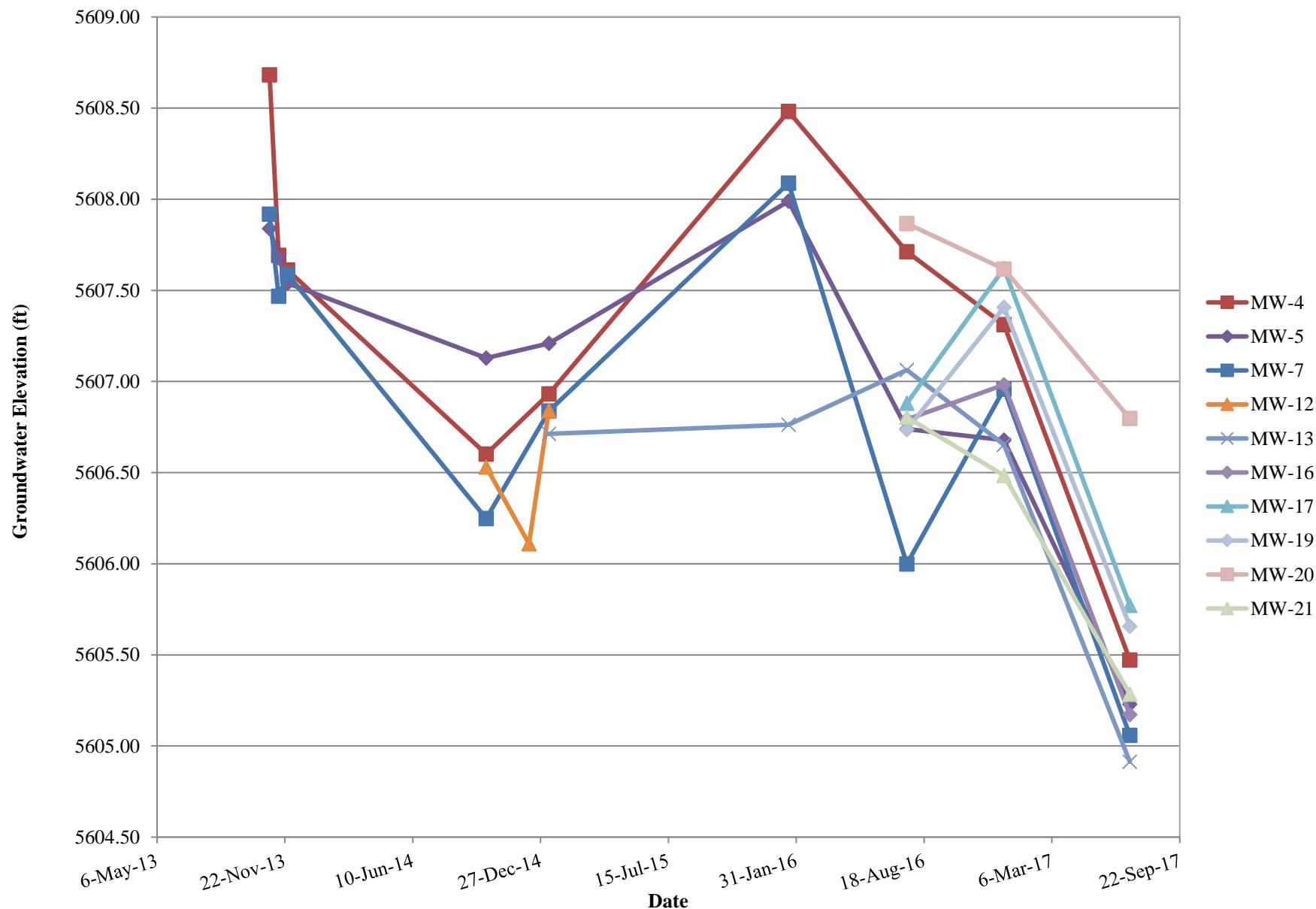




## **APPENDIX C**

### **HYDROGRAPHS**

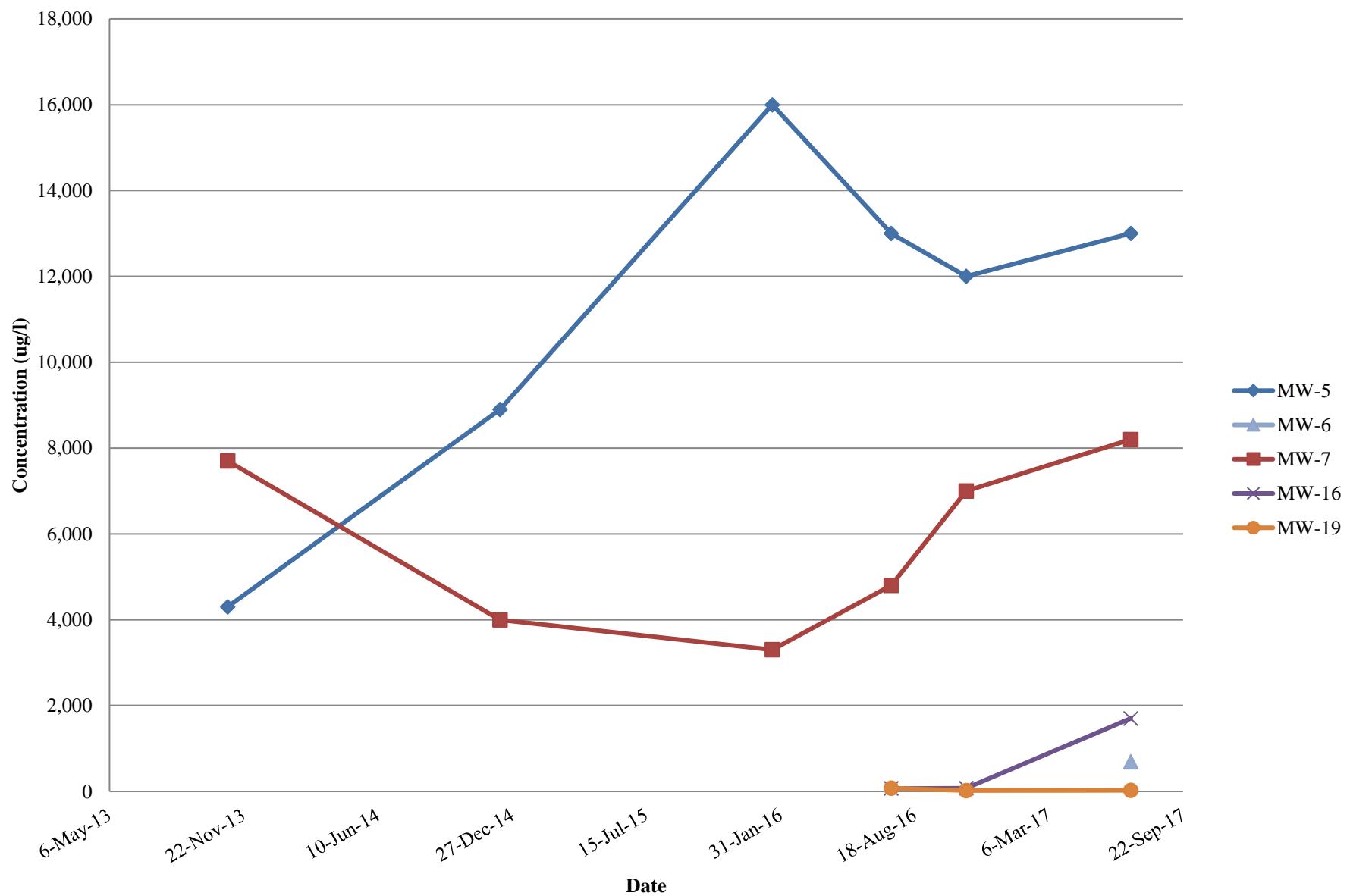
**HYDROGRAPHS FOR SELECT MONITORING WELLS**  
**FAIRVIEW STATION, ESPANOLA, NEW MEXICO**



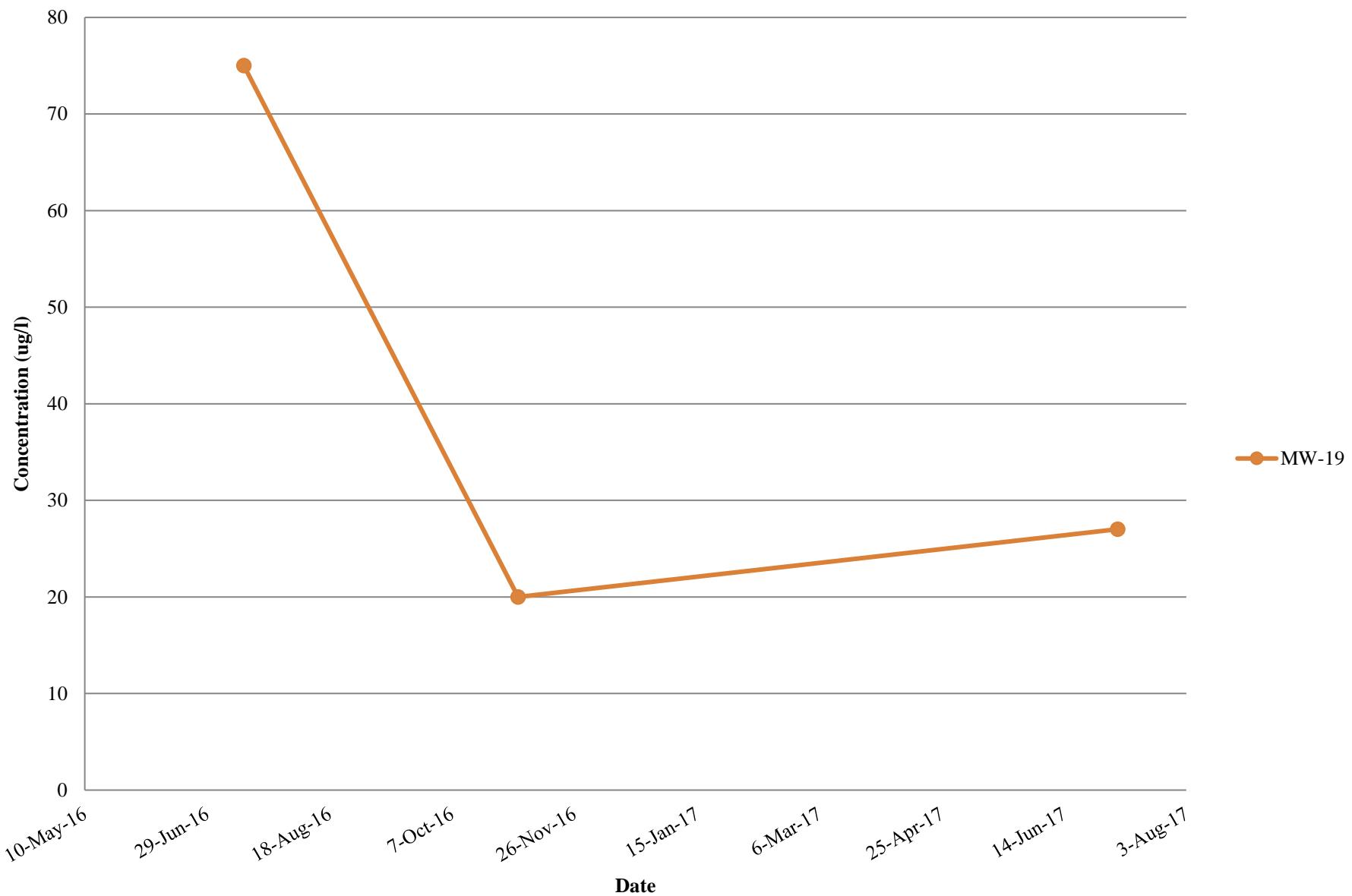
## **APPENDIX D**

## **TRENDS**

**BENZENE**  
**FAIRVIEW STATION, ESPANOLA, NEW MEXICO**



BENZENE  
FAIRVIEW STATION, ESPANOLA, NEW MEXICO



**MTBE**  
**FAIRVIEW STATION, ESPANOLA, NEW MEXICO**

