



Souder, Miller & Associates ♦ 3451 Candelaria Road NE, Suite D  
Albuquerque, NM 87107-1948 ♦ (505) 299-0942 ♦ (877) 299-0942 ♦ fax (505) 293-3430

August 24, 2016

#3423555

Jim Gibb, Geoscientist Supervisor  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505

**RE: Semi-Annual Groundwater Monitoring Report, Conoco Mini-Mart UST Site, 3837 US Highway 64, Chama, New Mexico**

Dear Mr. Gibb

Souder, Miller & Associates (SMA) is pleased to submit the attached Groundwater Monitoring Report for the above referenced site. The enclosed report completes the first of two deliverables associated with the work plan and cost schedule dated December 17, 2015, approved by the New Mexico Environment Department (NMED) Petroleum Storage Tank Bureau (PSTB) on June 23, 2016 (WPID #3872-1). This report was prepared pursuant to the contract between SMA and the New Mexico Environment Department (contract number 14-667-2000-0033).

If you have any questions, please do not hesitate to call me at 505-299-0942 or to e-mail me at [matthew.earthman@soudermiller.com](mailto:matthew.earthman@soudermiller.com).

Sincerely,  
**SOUDER, MILLER AND ASSOCIATES**

Matthew A. Earthman, P.G.  
Project Geoscientist

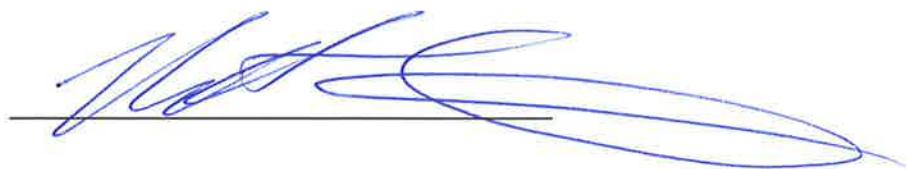
**Cover Page**  
**Form 1216**  
**Semi-Annual Groundwater Monitoring Report**

- 1. Site Name:**  
Conoco Mini-Mart UST Release Site
- 2. Responsible party:**  
State Lead Site
- 3. Responsible party mailing address (list contact person if different):**  
Jim Gibb  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505
- 4. Facility Number:**  
Facility #: 27498      RID #: 2316
- 5. Address/legal description:**  
3837 Highway 64  
Chama, New Mexico 87520
- 6. Author/consulting company:**  
Matthew Earthman, P.G. – Souder, Miller & Associates
- 7. Date of report:**  
August 24, 2016
- 8. Date of confirmation of release or date PSTB was notified of release:**  
A release was confirmed at the Conoco Mini-Mart on May 16, 1994.

### Statement of Familiarity

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

#### Signature:



#### Name:

Matthew Earthman, P.G.

#### Affiliation:

Souder, Miller & Associates

#### Title:

Project Geoscientist

#### Date:

August 24, 2016

## 1.0 Introduction

### A. Scope of Work

Souder, Miller and Associates (SMA) is pleased to submit the following report detailing semi-annual groundwater monitoring at the Conoco Mini-Mart UST release site located at 3837 Highway 64 in Chama, New Mexico. This report is submitted pursuant to the work plan and cost schedule dated December 17, 2015 and approved by the NMED PSTB on June 23, 2016 (WPID #3872-1). This report was prepared pursuant to the contract between SMA and the New Mexico Environment Department (contract number 14-667-2000-0033). This report constitutes the first of two deliverables associated with the current work plan and is the most recent groundwater monitoring event conducted at the site since March 24, 2015.

### 1.2 Monitoring Event's Highlights

Groundwater monitoring was performed at the site on August 11, 2016. All five existing site wells were checked for the presence of NAPL, gauged for depth to water, and sampled for laboratory analysis of the groundwater by EPA Methods 8260 and 504.1. Groundwater monitoring well MW-6 was destroyed between 2010 and 2015. It was likely scraped off by snow removal activities. No NAPL was detected in any well. The average groundwater elevation at the Conoco Mini-Mart site has decreased by 2.86 feet relative to the previous gauging event conducted in March 24, 2015.

Total naphthalenes (277 µg/L) and total xylenes (690 µg/L) were detected above the New Mexico Water Quality Control Commission Regulations (NMWQCCR) standard (30 µg/L and 620 µg/L respectively) in monitoring well MW-7. Ethylbenzene (350 µg/L), toluene (2.1 µg/L), and benzene (1.7 µg/L) were also detected in monitoring well MW-7 below applicable NMWQCCR standards. Total xylenes (8.7 µg/L) was detected in monitoring well MW-9 below applicable NMWQCCR standards and benzene (1.5 µg/L) and ethylbenzene (1.7 µg/L) were detected in monitoring well MW-11 below applicable NMWQCCR standards. No constituents were detected above the practical quantitative limit (PQL) in monitoring wells MW-11 or MW-12.

## 2.0 Site Background

Historical files report that the owner of the adjoining property to the south of the Conoco Mini-Mart had complained of gasoline odors in the basement sometime in the 1970's. A 1989 "Environmental Evaluation" performed by Sergent, Hauskins & Beckwith included the drilling of four exploratory soil borings and groundwater sampling from three of the four soil borings. Depths to groundwater at the soil boring locations ranged from 9 to 13 feet below ground surface (bgs). The groundwater samples were submitted to an analytical laboratory for analysis. The sum of benzene, toluene, ethylbenzene, and total xylenes (BTEX) concentrations in the groundwater samples ranged from 71 µg/L to 17,500 µg/L. Methyl tert-butyl ether (MTBE) was also identified in groundwater, while 1,2-dibromoethane (EDB) and 1,2-dichloroethane were not. A sheen was also noted on purged groundwater at two of the sampling locations. Groundwater flow was estimated by Sergent, Hauskins & Beckwith to be in a south-southeasterly direction.

The NMED PSTB contracted with INTERA in January, 2005 to perform soil boring and monitoring well installation at the site in an attempt to determine the extent of on-site contamination and to determine the location of USTs remaining on site. The 1994 PSTB inspection records indicated the existence of two abandon USTs, one filled with water and one with several inches of petroleum product. Pumps and dispensers had apparently been removed. Analytical results for the subsurface soils located immediately south of the USTs showed concentrations of contaminants of concern (COC) to be above PSTB Tier 1 Soil Concentrations Protective of Groundwater. Eight groundwater monitoring wells were installed. Groundwater analytical results showed concentrations of COC to be above NMWQCCR standards in monitoring wells MW-1, MW-2, MW-5, MW-7, and MW-8.

INTERA reported that two USTs were present in the northern portion of the property. Real estate contract records show that three storage tanks were present at the site when the former owner, Diamond J. Oil Company, purchased the property. Based on the contaminant levels in the soil on the south side of the property, the third UST is suspected to be located along the south side of the former gas station building. It was recommended that the three USTs be located and removed.

The analytical results from the 2005 INTERA Site Assessment show that the groundwater contamination has migrated off site and that the groundwater gradient is south-southwest.

SMA was contracted by the NMED PSTB in January, 2006 to complete a site assessment and other necessary work at the Conoco Mini-Mart release site. Following the site assessment, SMA removed three USTs and excavated a total of 1,060 cubic yards of contaminated soil in December, 2006. Five site monitoring wells (MW-9, MW-10, MW-11, MW-12, and MW-13) were installed from March 27-29, 2007 after the remedial excavation was completed. Existing site monitoring wells MW-1 and MW-2 were destroyed during the remedial excavation activities.

SMA completed the first quarterly ground water monitoring of the subject site on April 4, 2007. Contaminants of concern (COC) were above NMWQCCR standards in monitoring wells MW-5, MW-7, MW-8, MW-11, MW-12, and MW-13. Five additional monitoring events were completed between 2007 and 2009, and in October, 2009, monitoring well MW-13 was plugged and abandoned.

The groundwater monitoring event conducted in April, 2010, SMA plugged and abandoned an additional four site monitoring wells (MW-3, MW-4, MW-5, and MW-10). Following well decommission, SMA also conducted a groundwater monitoring event of the six (6) existing site wells (MW-6, MW-7, MW-8, MW-9, MW-11, and MW-12). Concentrations of benzene, total xylenes, and total naphthalenes continued to exceed the applicable NMWQCCR standard in monitoring well MW-7. Monitoring well MW-12 also contained total xylenes and total naphthalenes above the applicable NMWQCCR standard.

During the most recent groundwater monitoring event, completed prior to this event in March, 2015, it was discovered that groundwater monitoring well MW-6 had been destroyed since the previous groundwater monitoring event in April, 2010. However, four of the five existing site wells were checked for the presence of NAPL, gauged for depth to water, and sampled for laboratory analysis of the groundwater by EPA Method 8260. Total naphthalenes were detected above the NMWQCCR standard (30 µg/L) in monitoring well MW-7 at a concentration of 105 µg/L.

### **3.0 Completed Tasks**

#### **3.0.1 Brief description of remediation system and date installed.**

Not applicable, no remediation system has been installed.

#### **3.0.2 Description of activities performed to keep system operating properly including: inspections, maintenance procedures and modifications, if any.**

Not applicable

### **3.1 Volatile Organic Hydrocarbon Monitoring**

All five existing site monitoring wells (MW-7, MW-8, MW-9, MW-11, and MW-12) at the Conoco Mini-Mart site in Chama, New Mexico were sampled on August 11, 2016 and analyzed for volatile organic hydrocarbon COCs by Environmental Protection Agency (EPA) Method 8260. Figure 1 illustrates the location of the monitoring wells. Figure 2 illustrates the groundwater gradient and direction. Figure 3 illustrates contaminant

groundwater gradient is steeper but generally consistent with what was calculated during the previous gauging event in March, 2015.

#### **4.0 SUMMARY AND CONCLUSIONS**

##### **4.1 Discussion of any trends or changes noted in analytical results or site conditions.**

Total naphthalenes and total xylenes were detected above the NMWQCCR standard in monitoring well MW-7. Various COCs, including benzene, toluene, and ethylbenzene, were detected in wells MW-7, MW-9, and MW-11 below the applicable NMWQCCR standards. Monitoring wells MW-8 and MW-12 did not contain any organic hydrocarbon COCs above the laboratory PQL. All monitoring wells on site have improved significantly in quality since the previous monitoring event in April, 2010.

##### **4.2 Ongoing assessment of remediation system.**

Not applicable, no remediation system has been installed

##### **4.3 Recommendations.**

SMA recommends continued semi-annual monitoring to evaluate seasonal contaminant trends, particularly in monitoring well MW-7.

concentrations. Current and previous analytical results are provided in Table 1. A summary of groundwater level measurements are provided in Table 4. Procedures for sampling the monitoring wells are described in Appendix 1. Field Notes are included in Appendix 2. Laboratory analytical results are included in Appendix 3.

Monitoring well MW-6, located on the eastern edge of the property and down gradient from the tank pits, was not located. SMA field personnel used a metal detector, and the survey coordinates to attempt to locate the well. The well was likely destroyed during snow removal activities along Highway 64.

Groundwater monitoring well MW-7, is located down gradient of the tank pits. Total naphthalenes (277 µg/L) and total xylenes were detected above NMWQCCR standards. Ethylbenzene (350 µg/L), toluene (2.1 µg/L), and benzene (1.7 µg/L) were also detected below applicable NMWQCCR standards.

Groundwater from MW-8, located cross gradient from the former tank pits, did not contain any constituents above the PQL.

Groundwater from MW-9, located south and hydraulically down-gradient from the tank pits, contained total xylenes (8.7 µg/L) below applicable NMWQCCR standards.

Groundwater from MW-11, located down gradient from the northern tank pit and cross gradient from the southern tank pit, contained benzene (1.5 µg/L) and ethylbenzene (1.7 µg/L) below NMWQCCR standards.

Groundwater from MW-12, located cross gradient from the northern tank pit and up gradient from the southern tank, pit did not contain any hydrocarbon COCs above the laboratory PQL.

### **3.2 Dissolved Metals Monitoring**

Not applicable

### **3.3 Groundwater Measurements**

Depths to groundwater were measured in all five of the existing site monitoring wells (MW-7, MW-8, MW-9, MW-11, and MW-12) on August 11, 2016. The average depth to water in the wells was 7.69 feet, which represents a 2.86 foot decrease since the wells were last gauged on March 24, 2015. Figure 2 is a potentiometric surface map of the Chama Conoco Mini-Mart UST Release site.

Groundwater flow direction, based on groundwater elevation data of the five site monitoring wells, is to the southwest at a gradient of 0.035 feet per foot. The

## Figures

1. Site Map
2. Potentiometric Surface Map
3. Groundwater Contaminant Concentration Map

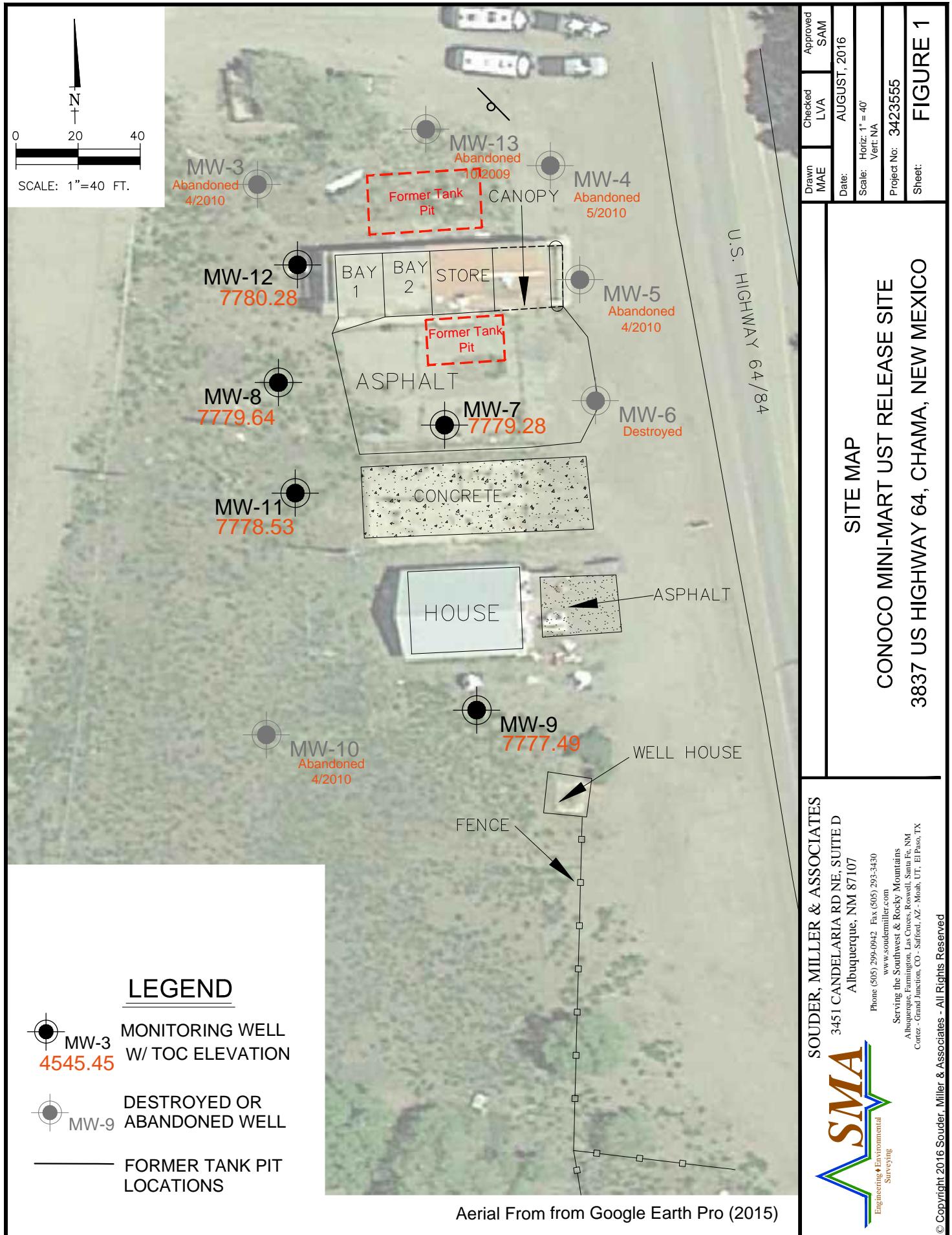
## Tables

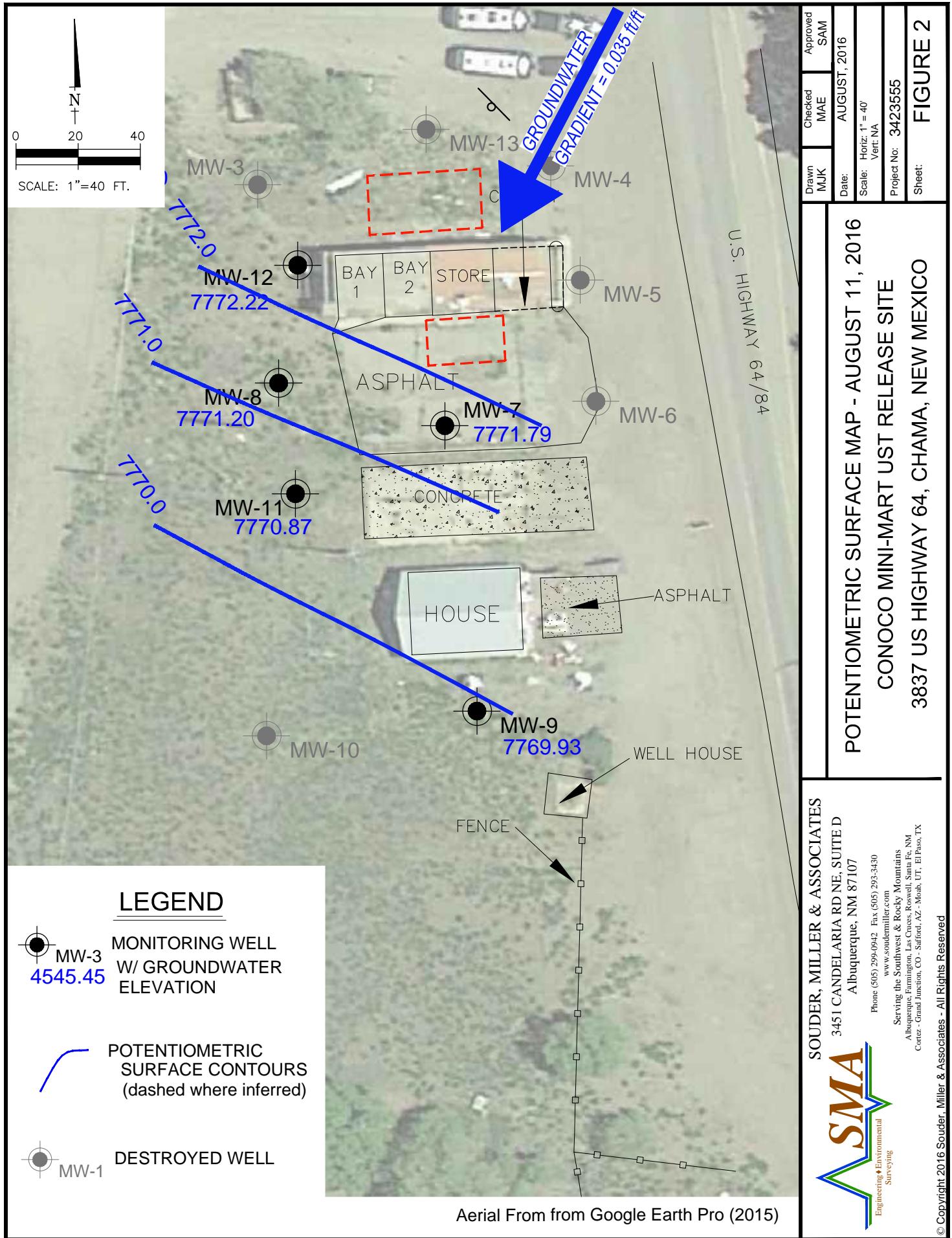
1. Summary of Groundwater Analytical Results
4. Depth to Water Measurements

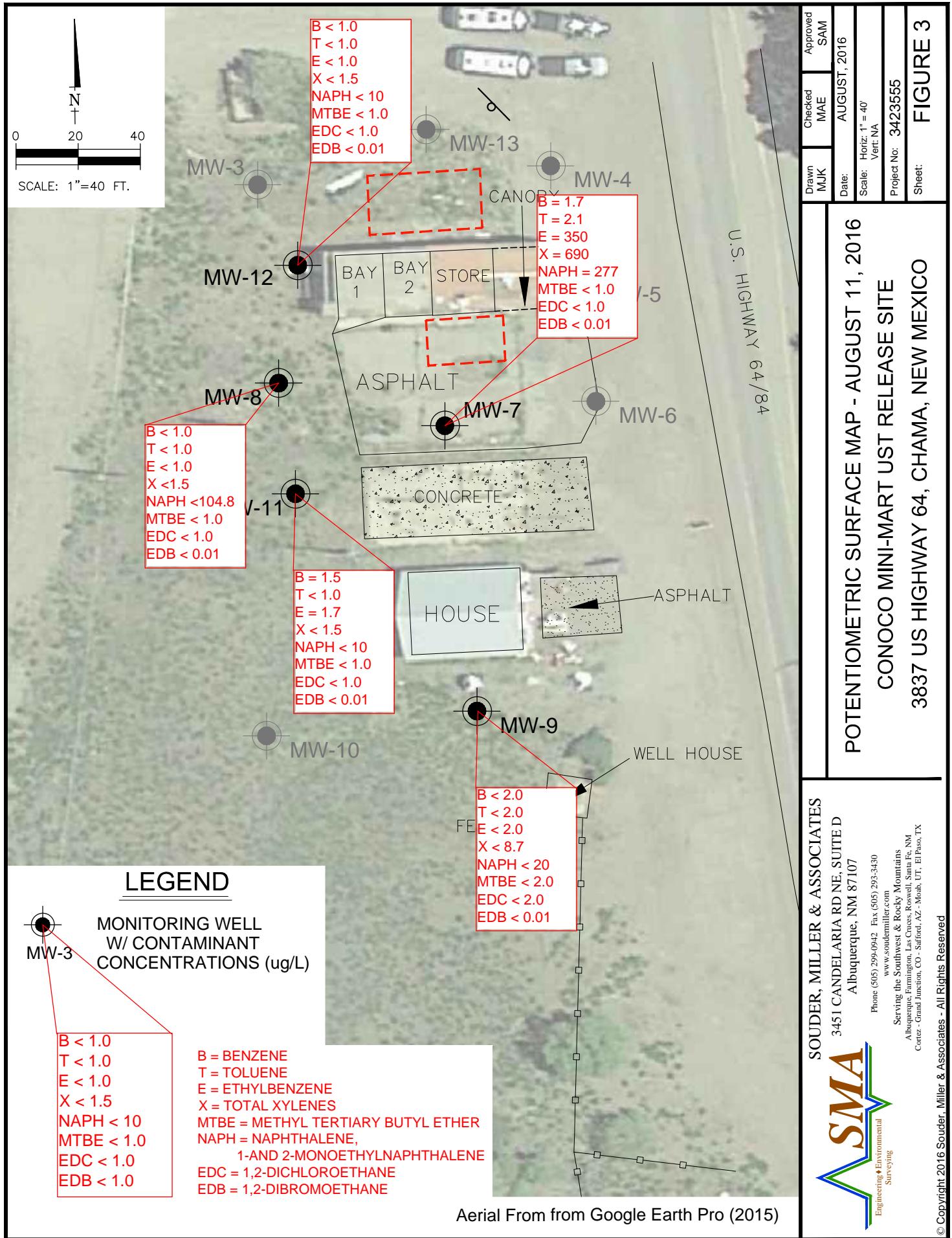
## Appendices

1. Sampling protocol
2. Field Notes/Copies
3. Laboratory Results

## Figures







## Tables

**Table 1**  
**Summary of Groundwater Analytical Results**  
**Chama Conoco Mini Mart, 3837 Highway 64, Chama, New Mexico**  
**Facility # 27498 RID #2316**

MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	
MW-1	07/08/05 <sup>INT</sup>	58	2.1	160	290	<1.0	NA	NA	NA	NA
	07/10/06*	5.8	<0.5	17.9	13.2	<1.0	NA	NA	1.57°	NA
	04/04/07	DESTROYED DURING TANK PULL								
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
MW-2	07/08/05 <sup>INT</sup>	290	32.0	720	1800	<5.0	NA	NA	NA	NA
	07/10/06*	174	9.0	357	418	11.5	NA	NA	620°	NA
	04/04/07	DESTROYED DURING TANK PULL								
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
MW-3	07/08/05 <sup>INT</sup>	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/10/06*	<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	<1.0°	NA
	04/04/07	UNABLE TO LOCATE								
	10/25/07	NOT SAMPLED								
	04/01/08	NOT SAMPLED								
	06/27/08	NOT SAMPLED								
	10/01/08	NOT SAMPLED								
	06/01/09	NOT SAMPLED								
	10/14/09	WELL DAMAGED, NO SAMPLE								
	04/05/10	WELL PLUG & ABANDON								
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
MW-4	07/08/05 <sup>INT</sup>	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/10/06*	<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	<1.0°	NA
	04/04/07*	<2.5	<2.5	<2.5	<5.0	<5.0	NA	NA	<1.0°	<0.009
	10/25/07	NOT SAMPLED								
	04/01/08	NOT SAMPLED								
	06/27/08	NOT SAMPLED								
	10/01/08	NOT SAMPLED								
	06/01/09	NOT SAMPLED								
	10/14/09	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<4.0	NA
	04/06/10	WELL PLUG & ABANDON								
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	

**Table 1**  
**Summary of Groundwater Analytical Results**  
**Chama Conoco Mini Mart, 3837 Highway 64, Chama, New Mexico**  
**Facility # 27498 RID #2316**

MW #	Method 8260								Method 6010	
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	
<b>MW-5</b>	07/08/05 <sup>INT</sup>	<1.0	4.8	210	940	<1.0	NA	NA	NA	NA
	07/10/06*	<0.5	1.9	142	256	1.7	NA	NA	97°	NA
	04/04/07*	1.9	0.49	195	283	<1.0	NA	NA	105°	<0.009
	10/25/07					NOT SAMPLED				
	04/01/08					NOT SAMPLED				
	06/27/08					NOT SAMPLED				
	10/01/08					NOT SAMPLED				
	06/01/09					NOT SAMPLED				
	10/14/09					NOT SAMPLED				
	04/05/10					<b>WELL PLUG &amp; ABANDON</b>				
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	
MW #	Method 8260								Method 6010	
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
<b>MW-6</b>	07/08/05 <sup>INT</sup>	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	NA	NA
	07/10/06*	<0.5	<0.5	<0.5	<1.0	<1.0	NA	NA	<1.0°	NA
	04/04/07*	<2.5	<2.5	<2.5	0.87	<5.0	NA	NA	<1.0°	<0.009
	10/25/07*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<6.0°	NA
	04/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.0°	NA
	06/27/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.0°	NA
	10/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.5°	NA
	06/01/09*	<1.0	<1.0	<1.0	<1.5	<1.0	NA	NA	NA	NA
	10/14/09	<1.0	<1.0	<1.0	<1.5	<1.0	NA	NA	<4.0	NA
	04/06/10	<1.0	<1.0	<1.0	<1.5	<1.0	NA	NA	<4.0	NA
	03/24/15					<b>DESTROYED</b>				
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	
MW #	Method 8260								Method 6010	
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
<b>MW-7</b>	07/08/05 <sup>INT</sup>	700	86	530	1300	<10	NA	NA	NA	NA
	07/10/06*	50	22	399	1264	18	NA	NA	428°	NA
	04/04/07*	63	12	508	1655	23	NA	NA	489°	<0.009
	10/25/07*	36	19	480	1400	<25	NA	NA	220°	NA
	04/01/08*	48	18	530	1500	<25	NA	NA	326°	NA
	06/27/08*	49	17	680	2500	<25	NA	NA	163°	NA
	10/01/08*	44	15	590	1500	<25	NA	NA	348°	NA
	06/01/09*	40	16	550	1500	<10	NA	NA	NA	NA
	10/14/09	32	14	610	1400	<5.0	NA	NA	560	NA
	04/06/10	28	11	600	1400	<5.0	NA	NA	629	NA
	03/24/15	<5.0	<5.0	170	390	<5.0	<5.0	<5.0	105	NA
	08/11/16	1.7	2.1	350	690	<1.0	<1.0	<0.010	277	NA
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	

**Table 1**  
**Summary of Groundwater Analytical Results**  
**Chama Conoco Mini Mart, 3837 Highway 64, Chama, New Mexico**  
**Facility # 27498 RID #2316**

MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	
MW-8	07/08/05 <sup>INT</sup>	49	42	600	1600	<10	NA	NA	NA	NA
	07/10/06*	76	3.7	425	503	44	NA	NA	74°	NA
	04/04/07*	50	8.0	570	1127	81	NA	NA	234°	<0.018
	10/25/07					NOT SAMPLED				
	04/01/08					NOT SAMPLED				
	06/27/08					NOT SAMPLED				
	10/01/08					NOT SAMPLED				
	06/01/09*	4.6	<1.0	34	10	<1.0	NA	NA	NA	NA
	10/14/09	2.7	<1.0	1.8	<1.5	<1.0	NA	NA	<4.0	NA
	04/06/10	7.9	1.6	180	180	<1.0	NA	NA	<4.0	NA
	03/24/15	<2.0	<2.0	<2.0	18	<2.0	<2.0	<2.0	4.8	NA
	08/11/16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<0.010	<10	NA
NMWQCCR/NMPSTR Standards		10	750	750	620	100	10	0.1	30	0.05
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
	04/04/07*	<2.5	<2.5	<2.5	<5.0	<5.0	NA	NA	<1.0°	<0.009
	10/25/07*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<6.0°	NA
	04/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.0°	NA
	06/27/08*	8.2	3.9	50	<2.0	<2.5	NA	NA	5.0°	NA
	10/01/08*	11	7.5	58	61	<2.5	NA	NA	<10°	NA
	06/01/09*	<1.0	<1.0	1.8	1.7	<1.0	NA	NA	NA	NA
	10/14/09	7.9	9.2	56	57	<1.0	NA	NA	19	NA
	04/06/10	<1.0	<1.0	<1.0	<1.0	<1.0	NA	NA	<4.0	NA
	03/24/15					WELL MISSED				
	08/11/16	<2.0	<2.0	<2.0	8.7	<2.0	<2.0	<0.010	<20	NA
NMWQCCR/NMPSTR Standards		10	750	750	620	100	10	0.1	30	0.05
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
	04/04/07*	<2.5	<2.5	<2.5	<5.0	<5.0	NA	NA	<1.0°	<0.009
	10/25/07*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<6.0°	NA
	04/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.0°	NA
	06/27/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	5.0°	NA
	10/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<10°	NA
	06/01/09*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	NA	NA
	10/14/09	<1.0	<1.0	<1.0	<1.5	<1.0	NA	NA	<4.0	NA
	04/05/10					WELL PLUG & ABANDON				
NMWQCCR/NMPSTR Standards		10	750	750	620	100	10	0.1	30	0.05

**Table 1**  
**Summary of Groundwater Analytical Results**  
**Chama Conoco Mini Mart, 3837 Highway 64, Chama, New Mexico**  
**Facility # 27498 RID #2316**

MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	
MW-11	04/04/07*	31	16.1	138	71	<5.0	NA	NA	53°	<0.009
	10/25/07*	21	5.4	280	13	17	NA	NA	15°	NA
	04/01/08*	11	<1.0	24	9.1	<2.5	NA	NA	3.1°	NA
	06/27/08*	18	<1.0	130	8.8	<2.5	NA	NA	5.5°	NA
	10/01/08*	9.2	<1.0	47	5.2	<2.5	NA	NA	<2.5°	NA
	06/01/09	10.0	<1.0	24	5.0	<1.0	NA	NA	<2.0	NA
	10/14/09	5.6	<1.0	21	6.4	<1.0	NA	NA	<4.0	NA
	04/06/10	1.1	<1.0	2.1	4.4	<1.0	NA	NA	<4.0	NA
	03/24/15	<2.0	<1.0	<2.0	<3.0	<2.0	<2.0	<2.0	<20	NA
	08/11/16	1.5	<1.0	1.7	<1.5	<1.0	<1.0	<0.010	<10	NA
NMWQCCR/NMPSTR Standards		10	750	750	620	100	10	0.1	30	0.05
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
MW-12	04/04/07*	10.9	<2.5	44	129	<5.0	NA	NA	40°	<0.009
	10/25/07*	1.9	<1.0	35	76	2.7	NA	NA	2.1°	NA
	04/01/08*	3.2	11	150	750	2.5	NA	NA	12°	NA
	06/27/08*	<1.0	1.2	78	420	2.5	NA	NA	62°	NA
	10/01/08*	<1.0	<1.0	12	32	<2.5	NA	NA	<10°	NA
	06/01/09*	<5.0	<5.0	69	200	<5.0	NA	NA	NA	NA
	10/14/2009	<1.0	<1.0	1.8	<1.5	<1.0	NA	NA	<4.0	NA
	4/6/2010	<1.0	5.4	280	1100	<1.0	NA	NA	146	NA
	03/24/15	<2.0	<2.0	<2.0	<3.0	<3.0	<2.0	<2.0	<20	NA
	08/11/16	<1.0	<1.0	<1.0	<1.5	<1.0	<1.0	<0.010	<10	NA
NMWQCCR/NMPSTR Standards		10	750	750	620	100	10	0.1	30	0.05
MW #	Method 8260									Method 6010
	Date	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	EDC	EDB	Total Naphthalenes	Lead
MW-13	04/04/07*	20	8.4	193	381	20	NA	NA	70°	<0.009
	10/25/07*	1.7	<1.0	36	13	<2.5	NA	NA	2.2°	NA
	04/01/08*	1.6	<1.0	32	89	<2.5	NA	NA	<2.0°	NA
	06/27/08*	1.5	<1.0	47	16	<2.5	NA	NA	13°	NA
	10/01/08*	1.2	<1.0	21	<2.0	<2.5	NA	NA	<2.5°	NA
	06/01/09	UNABLE TO LOCATE								
	10/14/09	WELL PLUG & ABANDON								
NMWQCCR/NMPSTR Standards		10	750	750	620	100	10	0.1	30	0.05

**Notes:** \* = Data analyzed by Method 8021, results in µg/L

° = Total Naphthalenes analyzed by Method 8310, results in µg/L

Method 8260 results in µg/L; Method 6010 results in mg/L

MTBE = Methyl Tertiary Butyl Ether

Red indicates concentration exceeds standard

NA = Not Analyzed

7/8/2005<sup>INT</sup> Indicates data adopted from Intera report dated 9/7/2005

Table 4 Depth to Water Measurements  
 Chama Conoco Mini Mart UST Release Site, 3837 Highway 64, Chama, New Mexico  
 Facility # 27498 RID #2316

MW #	TOC Elev.	Total Well Depth	07/08/05		07/10/06		04/04/07		10/25/07		04/01/08	
			Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.
MW-1 *	7780.17	15.0	5.74	7774.43	5.26	7774.91	Destroyed					
MW-2 *	7779.97	15.0	6.01	7773.96	5.78	7774.19	Destroyed					
MW-3 *	7780.16	15.5	5.76	7774.40	6.21	7773.95	Not Located		Not Measured		Not Measured	
MW-4 *	7779.55	15.5	4.40	7775.15	4.58	7774.97	Not Measured		Not Measured		Not Measured	
MW-5 *	7779.02	15.0	5.76	7773.26	5.93	7773.09	Not Measured		Not Measured		Not Measured	
MW-6 *	7778.61	12.0	5.63	7772.98	5.90	7772.71	3.74	7774.87	5.31	7773.30	2.40	7776.21
MW-7 *	7779.28	12.5	6.84	7772.44	6.59	7772.69	4.79	7774.49	7.33	7771.95	3.61	7775.67
MW-8 *	7779.64	15.0	7.76	7771.88	7.91	7771.73	6.71	7772.93	Not Measured		Not Measured	
MW-9	7777.49	11.3	Wells Installed March 27-29, 2007				4.92	7772.57	7.26	7770.23	3.23	7774.26
MW-10	7777.61	13.3					4.88	7772.73	6.75	7770.86	2.68	7774.93
MW-11	7778.53	12.0					4.74	7773.79	7.83	7770.70	3.04	7775.49
MW-12	7780.28	13.5					5.75	7774.53	7.60	7772.68	3.93	7776.35
MW-13	7780.47	13.5					5.99	7774.48	7.57	7772.90	3.54	7776.93
Average DTW			5.99		6.02		5.19		7.09		3.20	

MW-X \* Indicates a monitoring well that was installed and surveyed under contracted by Interra in January, 2005.  
 Monitoring wells MW-9, MW-10, MW-11, MW-12, and MW-13 were installed and surveyed by SMA in March, 2007.  
 All top of casing elevations taken from October, 2008 SMA Groundwater Monitoring Report.  
 All measurements in feet

Table 4 Depth to Water Measurements  
 Chama Conoco Mini Mart UST Release Site, 3837 Highway 64, Chama, New Mexico  
 Facility # 27498 RID #2316

MW #	TOC Elev.	Total Well Depth	06/27/08		10/01/08		06/01/09		10/14/09		04/06/10	
			Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.
MW-4 *	7779.55	15.5	Not Measured		Not Measured		Not Measured		4.64	7774.91	Plugged & Abandon	
MW-5 *	7779.02	15.0	Not Measured		Not Measured		Not Measured		5.08	7773.94	Plugged & Abandon	
MW-6 *	7778.61	12.0	5.22	7773.39	5.65	7772.96	4.81	7773.80	5.82	7772.79	2.61	7776.00
MW-7 *	7779.28	12.5	6.96	7772.32	7.83	7771.45	6.41	7772.87	8.01	7771.27	4.09	7775.19
MW-8 *	7779.64	15.0	Not Measured		Not Measured		7.15	7772.49	8.56	7771.08	4.64	7775.00
MW-9	7777.49	11.3	6.95	7770.54	7.72	7769.77	6.23	7771.26	8.21	7769.28	3.69	7775.95
MW-10	7777.61	13.3	6.51	7771.10	7.06	7770.55	5.83	7771.78	7.60	7770.01	Plugged & Abandon	
MW-11	7778.53	12.0	6.76	7771.77	7.31	7771.22	6.19	7772.34	7.82	7770.71	3.69	7774.84
MW-12	7780.28	13.5	7.38	7772.90	7.81	7772.47	6.98	7773.30	8.03	7772.25	4.65	7775.63
MW-13	7780.47	13.5	7.10	7773.37	7.69	7772.78	Not Located		Plugged & Abandon			
Average DTW			6.70		7.30		6.23		7.72		3.75	

MW-X \* Indicates a monitoring well that was installed and surveyed under contracted by Interra in January, 2005.

Monitoring wells MW-9, MW-10, MW-11, MW-12, and MW-13 were installed and surveyed by SMA in March, 2007.

All top of casing elevations taken from October, 2008 SMA Groundwater Monitoring Report.

SMA Plugged and Abandon MW-3, MW-4, MW-5 and MW-10 in April, 2010.

All measurements in feet

Table 4 Depth to Water Measurements  
 Chama Conoco Mini Mart UST Release Site, 3837 Highway 64, Chama, New Mexico  
 Facility # 27498 RID #2316

MW #	TOC Elev.	Total Well Depth	03/24/15		08/11/16	
			Depth to Water	Water Elev.	Depth to Water	Water Elev.
MW-6 *	7778.61	12.0	Destroyed		Destroyed	
MW-7 *	7779.28	12.5	4.46	7774.82	7.49	7771.79
MW-8 *	7779.64	15.0	5.50	7774.14	8.44	7771.20
MW-9	7777.49	11.3	Not Measured		7.56	7769.93
MW-11	7778.53	12.0	4.49	7774.04	7.66	7770.87
MW-12	7780.28	13.5	5.53	7774.75	8.06	7772.22
Average DTW			4.83		7.69	

MW-X \* Indicates a monitoring well that was installed and surveyed under contracted by Interra in January, 2005.  
 Monitoring wells MW-9, MW-10, MW-11, MW-12, and MW-13 were installed and surveyed by SMA in March, 2007.  
 All top of casing elevations taken from October, 2008 SMA Groundwater Monitoring Report.  
 SMA Plugged and Abandon MW-3, MW-4, MW-5 and MW-10 in April, 2010.  
 All measurements in feet

## **Appendix 1**

### **Sampling Protocol**

Groundwater samples were collected as established in the New Mexico Underground Storage Tank Bureau Guidelines for Corrective Action promulgated March 2000.

Water levels were measured prior to sample collection using a clean water level probe beginning with least contaminated, or clean monitoring wells to the most contaminated monitoring wells. Water levels of each monitoring well were recorded on a field form or in the field notebook. The water level probe was rinsed with distilled water prior to measuring the water level in each monitoring well. A cleaned oil/water interface probe was used to measure fluid levels in wells suspected to have NAPL.

Monitoring wells were purged of three well bore volumes, until water quality parameters stabilized, or until the well went dry prior to sampling. Using clean gloves and disposable bailers, ground water samples to be analyzed using EPA Method 8260 were collected in 40-ml vials preserved with mercuric chloride. All samples were labeled with the date, time, site and sample identification, the initials of the sampler, and the desired laboratory analysis. The samples were then stored on ice in a cooler for shipment to the analytical laboratory.

Sample ID were recorded on chain of custody forms prior to delivery to Hall Environmental Analysis Laboratory.

## **Appendix 2**

### **Field Notes, Copies**

Chama Mini-Mart UST Release Site, 3837 Highway 64

SMA Job # 3423555

Date: 8/11/16 Time: 1420 On-site: 1420 Off-site:  Sampled by: LSC

Weather conditions: clear sun 78°F

Equipment Used: Metal detector

Monitoring Well Data

MW ID	Total Depth	DTW	Gallons to purge	Sampling Time	Remarks
MW-6	11.5				
MW-7	12.2	7.49	2.35	2.0	1256 sunny dry @ 2.09 slight color, tip kit black, clear &c 6bd.
MW-8	15	8.44	3.28	2.25	1235 sunny dry @ 2.05 black, tip red no odor
MW-11	12.5	7.66	2.42	1.0	1245 sunny dry @ 1.09 brown cloudy no odor
MW-12	13.0	8.06	2.47	2.5	1233 no odor, slightly brown black, slightly cloudy
MW-B	13.8	7.56	3.12	1.25	1336 sunny dry @ 1.25 brown cloudy no odor

Notes: Sample for 8260B & 5041

6bd.

## **Appendix 3**

### **Laboratory Results**



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)

August 19, 2016

Matt Earthman

Souder Miller & Associates  
3451 Candelaria, NE Suite D  
Albuquerque, NM 87107  
TEL: (505) 299-0942  
FAX

RE: Chama Mini-Mart UST Site

OrderNo.: 1608736

Dear Matt Earthman:

Hall Environmental Analysis Laboratory received 6 sample(s) on 8/12/2016 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

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** MW-7**Project:** Chama Mini-Mart UST Site**Collection Date:** 8/11/2016 12:56:00 PM**Lab ID:** 1608736-001**Matrix:** AQUEOUS**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.010		µg/L	1	8/16/2016 11:26:56 AM	26974
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	1.7	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Toluene	2.1	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Ethylbenzene	350	10		µg/L	10	8/17/2016 2:12:28 PM	A36588
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2,4-Trimethylbenzene	210	10		µg/L	10	8/17/2016 2:12:28 PM	A36588
1,3,5-Trimethylbenzene	160	10		µg/L	10	8/17/2016 2:12:28 PM	A36588
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Naphthalene	150	20		µg/L	10	8/17/2016 2:12:28 PM	A36588
1-Methylnaphthalene	48	4.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
2-Methylnaphthalene	79	40		µg/L	10	8/17/2016 2:12:28 PM	A36588
Acetone	ND	10		µg/L	1	8/17/2016 2:41:12 PM	A36588
Bromobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Bromoform	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Bromomethane	ND	3.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
2-Butanone	ND	10		µg/L	1	8/17/2016 2:41:12 PM	A36588
Carbon disulfide	ND	10		µg/L	1	8/17/2016 2:41:12 PM	A36588
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Chlorobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Chloroethane	ND	2.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Chloroform	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Chloromethane	ND	3.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Dibromomethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588

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
	R	RPD outside accepted recovery limits	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 1608736  
 Date Reported: 8/19/2016

**CLIENT:** Souder Miller & Associates  
**Project:** Chama Mini-Mart UST Site  
**Lab ID:** 1608736-001

**Matrix:** AQUEOUS

**Client Sample ID:** MW-7  
**Collection Date:** 8/11/2016 12:56:00 PM  
**Received Date:** 8/12/2016 11:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
2-Hexanone	ND	10		µg/L	1	8/17/2016 2:41:12 PM	A36588
Isopropylbenzene	25	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
4-Isopropyltoluene	14	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2016 2:41:12 PM	A36588
Methylene Chloride	ND	3.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
n-Butylbenzene	11	3.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
n-Propylbenzene	42	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
sec-Butylbenzene	5.8	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Styrene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
tert-Butylbenzene	4.3	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Vinyl chloride	ND	1.0		µg/L	1	8/17/2016 2:41:12 PM	A36588
Xylenes, Total	690	15		µg/L	10	8/17/2016 2:12:28 PM	A36588
Surr: 1,2-Dichloroethane-d4	84.4	70-130	%Rec		1	8/17/2016 2:41:12 PM	A36588
Surr: 4-Bromofluorobenzene	98.0	70-130	%Rec		1	8/17/2016 2:41:12 PM	A36588
Surr: Dibromofluoromethane	82.1	70-130	%Rec		1	8/17/2016 2:41:12 PM	A36588
Surr: Toluene-d8	114	70-130	%Rec		1	8/17/2016 2:41:12 PM	A36588

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** MW-8**Project:** Chama Mini-Mart UST Site**Collection Date:** 8/11/2016 12:35:00 PM**Lab ID:** 1608736-002**Matrix:** AQUEOUS**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.010		µg/L	1	8/16/2016 8:25:03 PM	26975
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Toluene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Ethylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Naphthalene	ND	2.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Acetone	ND	10		µg/L	1	8/17/2016 3:38:39 PM	A36588
Bromobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Bromoform	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Bromomethane	ND	3.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
2-Butanone	ND	10		µg/L	1	8/17/2016 3:38:39 PM	A36588
Carbon disulfide	ND	10		µg/L	1	8/17/2016 3:38:39 PM	A36588
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Chlorobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Chloroethane	ND	2.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Chloroform	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Chloromethane	ND	3.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Dibromomethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** MW-8**Project:** Chama Mini-Mart UST Site**Collection Date:** 8/11/2016 12:35:00 PM**Lab ID:** 1608736-002**Matrix:** AQUEOUS**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
2-Hexanone	ND	10		µg/L	1	8/17/2016 3:38:39 PM	A36588
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2016 3:38:39 PM	A36588
Methylene Chloride	ND	3.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Styrene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Vinyl chloride	ND	1.0		µg/L	1	8/17/2016 3:38:39 PM	A36588
Xylenes, Total	ND	1.5		µg/L	1	8/17/2016 3:38:39 PM	A36588
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	8/17/2016 3:38:39 PM	A36588
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	8/17/2016 3:38:39 PM	A36588
Surr: Dibromofluoromethane	107	70-130		%Rec	1	8/17/2016 3:38:39 PM	A36588
Surr: Toluene-d8	101	70-130		%Rec	1	8/17/2016 3:38:39 PM	A36588

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	Page 4 of 16 Sample pH Not In Range
	R	RPD outside accepted recovery limits	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 1608736  
 Date Reported: 8/19/2016

**CLIENT:** Souder Miller & Associates  
**Project:** Chama Mini-Mart UST Site  
**Lab ID:** 1608736-003

**Matrix:** AQUEOUS

**Client Sample ID:** MW-11

**Collection Date:** 8/11/2016 12:45:00 PM  
**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.010		µg/L	1	8/16/2016 8:40:31 PM	26975
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	1.5	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Toluene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Ethylbenzene	1.7	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Naphthalene	ND	2.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Acetone	ND	10		µg/L	1	8/17/2016 4:07:26 PM	A36588
Bromobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Bromoform	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Bromomethane	ND	3.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
2-Butanone	ND	10		µg/L	1	8/17/2016 4:07:26 PM	A36588
Carbon disulfide	ND	10		µg/L	1	8/17/2016 4:07:26 PM	A36588
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Chlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Chloroethane	ND	2.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Chloroform	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Chloromethane	ND	3.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Dibromomethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588

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
	R	RPD outside accepted recovery limits	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 1608736  
 Date Reported: 8/19/2016

**CLIENT:** Souder Miller & Associates  
**Project:** Chama Mini-Mart UST Site  
**Lab ID:** 1608736-003

**Matrix:** AQUEOUS

**Client Sample ID:** MW-11  
**Collection Date:** 8/11/2016 12:45:00 PM  
**Received Date:** 8/12/2016 11:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
2-Hexanone	ND	10		µg/L	1	8/17/2016 4:07:26 PM	A36588
Isopropylbenzene	4.1	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2016 4:07:26 PM	A36588
Methylene Chloride	ND	3.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
n-Propylbenzene	2.5	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
sec-Butylbenzene	3.2	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Styrene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
tert-Butylbenzene	1.5	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Vinyl chloride	ND	1.0		µg/L	1	8/17/2016 4:07:26 PM	A36588
Xylenes, Total	ND	1.5		µg/L	1	8/17/2016 4:07:26 PM	A36588
Surr: 1,2-Dichloroethane-d4	97.1	70-130	%Rec		1	8/17/2016 4:07:26 PM	A36588
Surr: 4-Bromofluorobenzene	109	70-130	%Rec		1	8/17/2016 4:07:26 PM	A36588
Surr: Dibromofluoromethane	97.7	70-130	%Rec		1	8/17/2016 4:07:26 PM	A36588
Surr: Toluene-d8	101	70-130	%Rec		1	8/17/2016 4:07:26 PM	A36588

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
	R	RPD outside accepted recovery limits	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 1608736

Date Reported: 8/19/2016

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** MW-12

**Project:** Chama Mini-Mart UST Site

**Collection Date:** 8/11/2016 12:23:00 PM

**Lab ID:** 1608736-004

**Matrix:** AQUEOUS

**Received Date:** 8/12/2016 11:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.010		µg/L	1	8/16/2016 8:55:58 PM	26975
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Toluene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Ethylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Naphthalene	ND	2.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Acetone	ND	10		µg/L	1	8/17/2016 4:36:12 PM	A36588
Bromobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Bromoform	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Bromomethane	ND	3.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
2-Butanone	ND	10		µg/L	1	8/17/2016 4:36:12 PM	A36588
Carbon disulfide	ND	10		µg/L	1	8/17/2016 4:36:12 PM	A36588
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Chlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Chloroethane	ND	2.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Chloroform	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Chloromethane	ND	3.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Dibromomethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** MW-12**Project:** Chama Mini-Mart UST Site**Collection Date:** 8/11/2016 12:23:00 PM**Lab ID:** 1608736-004**Matrix:** AQUEOUS**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
2-Hexanone	ND	10		µg/L	1	8/17/2016 4:36:12 PM	A36588
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2016 4:36:12 PM	A36588
Methylene Chloride	ND	3.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Styrene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Vinyl chloride	ND	1.0		µg/L	1	8/17/2016 4:36:12 PM	A36588
Xylenes, Total	ND	1.5		µg/L	1	8/17/2016 4:36:12 PM	A36588
Surr: 1,2-Dichloroethane-d4	106	70-130	%Rec		1	8/17/2016 4:36:12 PM	A36588
Surr: 4-Bromofluorobenzene	100	70-130	%Rec		1	8/17/2016 4:36:12 PM	A36588
Surr: Dibromofluoromethane	109	70-130	%Rec		1	8/17/2016 4:36:12 PM	A36588
Surr: Toluene-d8	99.6	70-130	%Rec		1	8/17/2016 4:36:12 PM	A36588

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
	R	RPD outside accepted recovery limits	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 1608736  
 Date Reported: 8/19/2016

**CLIENT:** Souder Miller & Associates  
**Project:** Chama Mini-Mart UST Site  
**Lab ID:** 1608736-005

**Matrix:** AQUEOUS

**Client Sample ID:** MW-9  
**Collection Date:** 8/11/2016 1:36:00 PM  
**Received Date:** 8/12/2016 11:07:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.010		µg/L	1	8/16/2016 9:11:31 PM	26975
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Toluene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Ethylbenzene	13	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Methyl tert-butyl ether (MTBE)	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2,4-Trimethylbenzene	14	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,3,5-Trimethylbenzene	3.7	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2-Dichloroethane (EDC)	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2-Dibromoethane (EDB)	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Naphthalene	ND	4.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1-Methylnaphthalene	ND	8.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
2-Methylnaphthalene	ND	8.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Acetone	ND	20	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Bromobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Bromodichloromethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Bromoform	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Bromomethane	ND	6.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
2-Butanone	ND	20	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Carbon disulfide	ND	20	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Carbon Tetrachloride	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Chlorobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Chloroethane	ND	4.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Chloroform	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Chloromethane	ND	6.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
2-Chlorotoluene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
4-Chlorotoluene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
cis-1,2-DCE	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
cis-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2-Dibromo-3-chloropropane	ND	4.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Dibromochloromethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Dibromomethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2-Dichlorobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,3-Dichlorobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,4-Dichlorobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Dichlorodifluoromethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1-Dichloroethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1-Dichloroethylene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2-Dichloropropane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588

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
	R	RPD outside accepted recovery limits	RL	Reporting Detection Limit
	S	% Recovery outside of range due to dilution or matrix	W	Sample container temperature is out of limit as specified

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** MW-9**Project:** Chama Mini-Mart UST Site**Collection Date:** 8/11/2016 1:36:00 PM**Lab ID:** 1608736-005**Matrix:** AQUEOUS**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
2,2-Dichloropropane	ND	4.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1-Dichloropropene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Hexachlorobutadiene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
2-Hexanone	ND	20	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Isopropylbenzene	2.9	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
4-Isopropyltoluene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
4-Methyl-2-pentanone	ND	20	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Methylene Chloride	ND	6.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
n-Butylbenzene	ND	6.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
n-Propylbenzene	4.1	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
sec-Butylbenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Styrene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
tert-Butylbenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1,1,2-Tetrachloroethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1,2,2-Tetrachloroethane	ND	4.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Tetrachloroethene (PCE)	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
trans-1,2-DCE	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
trans-1,3-Dichloropropene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2,3-Trichlorobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2,4-Trichlorobenzene	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1,1-Trichloroethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,1,2-Trichloroethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Trichloroethene (TCE)	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Trichlorofluoromethane	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
1,2,3-Trichloropropane	ND	4.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Vinyl chloride	ND	2.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Xylenes, Total	8.7	3.0	D	µg/L	2	8/17/2016 12:46:13 PM	A36588
Surr: 1,2-Dichloroethane-d4	91.0	70-130	D	%Rec	2	8/17/2016 12:46:13 PM	A36588
Surr: 4-Bromofluorobenzene	100	70-130	D	%Rec	2	8/17/2016 12:46:13 PM	A36588
Surr: Dibromofluoromethane	90.7	70-130	D	%Rec	2	8/17/2016 12:46:13 PM	A36588
Surr: Toluene-d8	103	70-130	D	%Rec	2	8/17/2016 12:46:13 PM	A36588

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
- R RPD outside accepted recovery limits
- 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

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** TRIP BLANK**Project:** Chama Mini-Mart UST Site**Collection Date:****Lab ID:** 1608736-006**Matrix:** TRIP BLANK**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8011/504.1: EDB</b>							
1,2-Dibromoethane	ND	0.010		µg/L	1	8/16/2016 9:42:33 PM	26975
<b>EPA METHOD 8260B: VOLATILES</b>							
Benzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Toluene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Ethylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Naphthalene	ND	2.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
2-Methylnaphthalene	ND	4.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Acetone	ND	10		µg/L	1	8/17/2016 5:04:54 PM	A36588
Bromobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Bromodichloromethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Bromoform	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Bromomethane	ND	3.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
2-Butanone	ND	10		µg/L	1	8/17/2016 5:04:54 PM	A36588
Carbon disulfide	ND	10		µg/L	1	8/17/2016 5:04:54 PM	A36588
Carbon Tetrachloride	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Chlorobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Chloroethane	ND	2.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Chloroform	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Chloromethane	ND	3.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
2-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
4-Chlorotoluene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
cis-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Dibromochloromethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Dibromomethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,3-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,4-Dichlorobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Dichlorodifluoromethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1-Dichloroethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1-Dichloroethene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588

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
- R RPD outside accepted recovery limits
- 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

**Analytical Report**

Lab Order 1608736

Date Reported: 8/19/2016

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder Miller & Associates**Client Sample ID:** TRIP BLANK**Project:** Chama Mini-Mart UST Site**Collection Date:****Lab ID:** 1608736-006**Matrix:** TRIP BLANK**Received Date:** 8/12/2016 11:07:00 AM

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>	<b>Batch</b>
<b>EPA METHOD 8260B: VOLATILES</b>							
1,3-Dichloropropane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
2,2-Dichloropropane	ND	2.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Hexachlorobutadiene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
2-Hexanone	ND	10		µg/L	1	8/17/2016 5:04:54 PM	A36588
Isopropylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
4-Isopropyltoluene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
4-Methyl-2-pentanone	ND	10		µg/L	1	8/17/2016 5:04:54 PM	A36588
Methylene Chloride	ND	3.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
n-Butylbenzene	ND	3.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
n-Propylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
sec-Butylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Styrene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
tert-Butylbenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
trans-1,2-DCE	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1,1-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,1,2-Trichloroethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Trichloroethene (TCE)	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Trichlorofluoromethane	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
1,2,3-Trichloropropane	ND	2.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Vinyl chloride	ND	1.0		µg/L	1	8/17/2016 5:04:54 PM	A36588
Xylenes, Total	ND	1.5		µg/L	1	8/17/2016 5:04:54 PM	A36588
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	8/17/2016 5:04:54 PM	A36588
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	8/17/2016 5:04:54 PM	A36588
Surr: Dibromofluoromethane	104	70-130		%Rec	1	8/17/2016 5:04:54 PM	A36588
Surr: Toluene-d8	98.2	70-130		%Rec	1	8/17/2016 5:04:54 PM	A36588

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
- R RPD outside accepted recovery limits
- 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#: 1608736  
19-Aug-16

**Client:** Souder Miller & Associates  
**Project:** Chama Mini-Mart UST Site

Sample ID	LCS-26974	SampType:	LCS	TestCode: EPA Method 8011/504.1: EDB							
Client ID:	LCSW	Batch ID:	26974	RunNo: 36569							
Prep Date:	8/15/2016	Analysis Date:	8/16/2016	SeqNo: 1132433 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane		0.078	0.010	0.1000	0	78.2	70	130			
Sample ID	LCS-26975	SampType:	LCS	TestCode: EPA Method 8011/504.1: EDB							
Client ID:	LCSW	Batch ID:	26975	RunNo: 36569							
Prep Date:	8/15/2016	Analysis Date:	8/16/2016	SeqNo: 1132434 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane		0.086	0.010	0.1000	0	85.5	70	130			
Sample ID	MB-26974	SampType:	MBLK	TestCode: EPA Method 8011/504.1: EDB							
Client ID:	PBW	Batch ID:	26974	RunNo: 36569							
Prep Date:	8/15/2016	Analysis Date:	8/16/2016	SeqNo: 1132435 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane		ND	0.010								
Sample ID	MB-26975	SampType:	MBLK	TestCode: EPA Method 8011/504.1: EDB							
Client ID:	PBW	Batch ID:	26975	RunNo: 36569							
Prep Date:	8/15/2016	Analysis Date:	8/16/2016	SeqNo: 1132436 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane		ND	0.010								
Sample ID	1608736-001BMS	SampType:	MS	TestCode: EPA Method 8011/504.1: EDB							
Client ID:	MW-7	Batch ID:	26974	RunNo: 36569							
Prep Date:	8/15/2016	Analysis Date:	8/16/2016	SeqNo: 1132438 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane		0.050	0.010	0.1000	0	49.8	57.8	147			S
Sample ID	1608736-001BMSD	SampType:	MSD	TestCode: EPA Method 8011/504.1: EDB							
Client ID:	MW-7	Batch ID:	26974	RunNo: 36569							
Prep Date:	8/15/2016	Analysis Date:	8/16/2016	SeqNo: 1132439 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane		0.054	0.010	0.1000	0	53.8	57.8	147	7.66	31.5	S

## 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  
R RPD outside accepted recovery limits  
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#: 1608736

19-Aug-16

**Client:** Souder Miller & Associates

**Project:** Chama Mini-Mart UST Site

Sample ID	rb	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	A36588	RunNo: 36588							
Prep Date:		Analysis Date:	8/17/2016	SeqNo: 1133024 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		ND	1.0								
Toluene		ND	1.0								
Ethylbenzene		ND	1.0								
Methyl tert-butyl ether (MTBE)		ND	1.0								
1,2,4-Trimethylbenzene		ND	1.0								
1,3,5-Trimethylbenzene		ND	1.0								
1,2-Dichloroethane (EDC)		ND	1.0								
1,2-Dibromoethane (EDB)		ND	1.0								
Naphthalene		ND	2.0								
1-Methylnaphthalene		ND	4.0								
2-Methylnaphthalene		ND	4.0								
Acetone		ND	10								
Bromobenzene		ND	1.0								
Bromodichloromethane		ND	1.0								
Bromoform		ND	1.0								
Bromomethane		ND	3.0								
2-Butanone		ND	10								
Carbon disulfide		ND	10								
Carbon Tetrachloride		ND	1.0								
Chlorobenzene		ND	1.0								
Chloroethane		ND	2.0								
Chloroform		ND	1.0								
Chloromethane		ND	3.0								
2-Chlorotoluene		ND	1.0								
4-Chlorotoluene		ND	1.0								
cis-1,2-DCE		ND	1.0								
cis-1,3-Dichloropropene		ND	1.0								
1,2-Dibromo-3-chloropropane		ND	2.0								
Dibromochloromethane		ND	1.0								
Dibromomethane		ND	1.0								
1,2-Dichlorobenzene		ND	1.0								
1,3-Dichlorobenzene		ND	1.0								
1,4-Dichlorobenzene		ND	1.0								
Dichlorodifluoromethane		ND	1.0								
1,1-Dichloroethane		ND	1.0								
1,1-Dichloroethene		ND	1.0								
1,2-Dichloropropane		ND	1.0								
1,3-Dichloropropane		ND	1.0								
2,2-Dichloropropane		ND	2.0								

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- R RPD outside accepted recovery limits
- 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#: 1608736

19-Aug-16

**Client:** Souder Miller & Associates

**Project:** Chama Mini-Mart UST Site

Sample ID	rb	SampType:	MBLK	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	PBW	Batch ID:	A36588	RunNo: 36588							
Prep Date:		Analysis Date:	8/17/2016	SeqNo: 1133024 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
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		10		10.00		103	70	130			
Surr: 4-Bromofluorobenzene		9.9		10.00		98.8	70	130			
Surr: Dibromofluoromethane		10		10.00		105	70	130			
Surr: Toluene-d8		10		10.00		100	70	130			

Sample ID	100ng lcs	SampType:	LCS	TestCode: EPA Method 8260B: VOLATILES							
Client ID:	LCSW	Batch ID:	A36588	RunNo: 36588							
Prep Date:		Analysis Date:	8/17/2016	SeqNo: 1133025 Units: µg/L							
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		23	1.0	20.00	0	113	70	130			
Toluene		22	1.0	20.00	0	110	70	130			
Chlorobenzene		21	1.0	20.00	0	107	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
- R RPD outside accepted recovery limits
- 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#: 1608736

19-Aug-16

**Client:** Souder Miller & Associates

**Project:** Chama Mini-Mart UST Site

Sample ID 100ng lcs		SampType: LCS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: LCSW		Batch ID: A36588		RunNo: 36588							
Prep Date:		Analysis Date: 8/17/2016		SeqNo: 1133025		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	20	1.0	20.00	0	100	70	130				
Trichloroethene (TCE)	20	1.0	20.00	0	101	70	130				
Surr: 1,2-Dichloroethane-d4	11		10.00		105	70	130				
Surr: 4-Bromofluorobenzene	9.9		10.00		98.9	70	130				
Surr: Dibromofluoromethane	10		10.00		105	70	130				
Surr: Toluene-d8	10		10.00		102	70	130				

Sample ID 1608736-005a ms		SampType: MS		TestCode: EPA Method 8260B: VOLATILES							
Client ID: MW-9		Batch ID: A36588		RunNo: 36588							
Prep Date:		Analysis Date: 8/17/2016		SeqNo: 1133049		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	39	2.0	40.00	0.6068	96.9	70	130			D	
Toluene	43	2.0	40.00	1.442	105	70	130			D	
Chlorobenzene	42	2.0	40.00	0	105	70	130			D	
1,1-Dichloroethene	35	2.0	40.00	0	88.4	70	130			D	
Trichloroethene (TCE)	36	2.0	40.00	0	90.0	70	130			D	
Surr: 1,2-Dichloroethane-d4	18		20.00		91.3	70	130			D	
Surr: 4-Bromofluorobenzene	21		20.00		103	70	130			D	
Surr: Dibromofluoromethane	17		20.00		87.2	70	130			D	
Surr: Toluene-d8	20		20.00		101	70	130			D	

Sample ID 1608736-005a msd		SampType: MSD		TestCode: EPA Method 8260B: VOLATILES							
Client ID: MW-9		Batch ID: A36588		RunNo: 36588							
Prep Date:		Analysis Date: 8/17/2016		SeqNo: 1133050		Units: µg/L					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Benzene	39	2.0	40.00	0.6068	97.0	70	130	0.113	20	D	
Toluene	42	2.0	40.00	1.442	102	70	130	2.37	20	D	
Chlorobenzene	41	2.0	40.00	0	103	70	130	2.70	20	D	
1,1-Dichloroethene	34	2.0	40.00	0	86.2	70	130	2.52	20	D	
Trichloroethene (TCE)	36	2.0	40.00	0	90.5	70	130	0.461	20	D	
Surr: 1,2-Dichloroethane-d4	19		20.00		93.4	70	130	0	0	D	
Surr: 4-Bromofluorobenzene	20		20.00		101	70	130	0	0	D	
Surr: Dibromofluoromethane	18		20.00		91.8	70	130	0	0	D	
Surr: Toluene-d8	20		20.00		100	70	130	0	0	D	

## 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
- R RPD outside accepted recovery limits
- 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  
4901 Hawkins NE  
Albuquerque, NM 87109  
TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: SMA ABQ

Work Order Number: 1608736

RcptNo: 1

Received by/date:

08/12/16

Logged By: Ashley Gallegos

8/12/2016 11:07:00 AM

AG

Completed By: Ashley Gallegos

8/12/2016 12:06:06 PM

AG

Reviewed By:

AS

08/12/16

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes  No  NA   
5. Were all samples received at a temperature of >0° C to 6.0°C Yes  No  NA   
6. Sample(s) in proper container(s)? Yes  No   
7. Sufficient sample volume for indicated test(s)? Yes  No   
8. Are samples (except VOA and ONG) properly preserved? Yes  No   
9. Was preservative added to bottles? Yes  No  NA   
10. VOA vials have zero headspace? Yes  No  No VOA Vials   
11. Were any sample containers received broken? Yes  No   
12. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes  No  # of preserved bottles checked for pH:  
<2 or >12 unless noted  
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  Adjusted?  
Checked by:

### Special Handling (if applicable)

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

Person Notified:

Date

By Whom:

Via:

eMail  Phone  Fax  In Person

Regarding:

Client Instructions:

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Not Present			

