

# GROUNDWATER MONITORING REPORT

**Conoco Mini-Mart UST Site**  
3837 US Highway 64  
Chama, New Mexico  
Facility #27498      RID #2316

April, 2017



**Souder, Miller & Associates**  
*Engineering ♦ Environmental ♦ Surveying*

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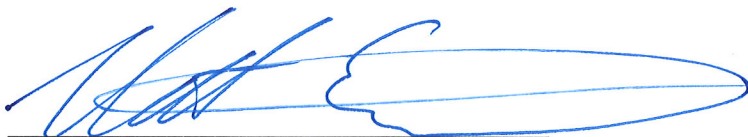
**Cover Page**  
**Form 1216**  
**Semi-Annual Groundwater Monitoring Report**

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):  
Mike Timmer, Project Manager  
New Mexico Environment Department  
Petroleum Storage Tank Bureau  
121 Tijeras Avenue NE, Suite 1000  
Albuquerque, NM 87102
  
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:**  
April 27, 2017
  
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:**



A handwritten signature in blue ink, consisting of several loops and a long horizontal stroke, positioned above a solid horizontal line.

**Name:**

Matthew Earthman, P.G.

**Affiliation:**

Souder, Miller & Associates

**Title:**

Project Geoscientist

**Date:**

April 27, 2017

## 1.0 Introduction

### 1.1 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 #3872-2). 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 second of two deliverables associated with the current work plan and is the most recent groundwater monitoring event conducted at the site since August 11, 2016.

### 1.2 Monitoring Event's Highlights

Groundwater monitoring was performed at the site on April 18, 2017. All six existing site wells were checked for the presence of NAPL and gauged for depth to water. Groundwater monitoring wells MW-7, MW-8, MW-9, MW-11, and MW-12 were sampled for laboratory analysis of the groundwater by EPA Methods 8260 and 504.1. Monitoring well MW-6 was not sampled as it could not be found between 2010 and 2015 and was presumed to be destroyed. However, during the most recent monitoring event conducted April 18, 2017 monitoring well MW-6 was located and gauged for depth to water. No NAPL was detected in any well. The average groundwater elevation at the Conoco Mini-Mart site has increased by 2.99 feet relative to the previous gauging event conducted on August 11, 2016.

Total naphthalenes (180 µg/L) were detected above the New Mexico Water Quality Control Commission Regulations (NMWQCCR) standard of 30 µg/L in monitoring well MW-7. Total xylenes (460 µg/L), ethylbenzene (260 µg/L), toluene (1.2 µg/L), and benzene (2.7 µg/L) were also detected in monitoring well MW-7 below applicable NMWQCCR standards. Total xylenes (7.9 µg/L) and Naphthalene (5.5 µg/L) were detected in monitoring well MW-11 below applicable NMWQCCR standards. No constituents of concern were detected above the practical quantitation limit (PQL) in monitoring wells MW-8, MW-9, 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 Sergeant, 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 Sergeant, 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.

In April, 2010, SMA plugged and abandoned an additional four site monitoring wells (MW-3, MW-4, MW-5, and MW-10). Following well decommissioning, 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 August, 2016, five of the six 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 277 µg/L. Monitoring well MW-6 was presumed to be destroyed since it could not be located for two consecutive monitoring events, however it was discovered intact, checked for NAPL and gauged for depth to water on the April 18, 2017 monitoring event.

### **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**

Five of the six 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 April 18, 2017 and analyzed for volatile organic hydrocarbon COCs by Environmental Protection Agency

(EPA) Method 8260 and EDB by EPA Method 504.1. Figure 1 illustrates the location of the monitoring wells. Figure 2 illustrates the groundwater gradient and direction. Figure 3 illustrates contaminant concentrations. Current and previous analytical results are provided in Table 1. A summary of groundwater elevation 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 located but not sampled. SMA field personnel used a metal detector, and the survey coordinates to locate the well.

Groundwater monitoring well MW-7 is located down gradient of the tank pits. Total naphthalenes (180 µg/L) were detected above NMWQCCR standards. Ethylbenzene (260 µg/L), total xylenes (460 µg/L), toluene (1.2 µg/L), and benzene (2.7 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 hydrocarbon COCs above the laboratory PQL.

Groundwater from MW-9, located south and hydraulically down-gradient from the tank pits, did not contain any hydrocarbon COCs above the laboratory PQL.

Groundwater from MW-11, located down gradient from the northern tank pit and cross gradient from the southern tank pit, contained total xylenes (7.9 µg/L) and naphthalene (5.5 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 six of the existing site monitoring wells (MW-6, MW-7, MW-8, MW-9, MW-11, and MW-12) on April 18, 2017. The average depth to water in the wells was 4.70 feet, which represents a 2.99 foot increase in groundwater elevation since the wells were last gauged on August 11, 2016. Figure 2 is a potentiometric surface map of the Chama Conoco Mini-Mart UST Release site.



Groundwater flow direction, based on groundwater elevation data from the six site monitoring wells, is to the southwest at a gradient of 0.0127 feet per foot. The groundwater gradient is less steep but generally consistent with what was calculated during the previous gauging event in August, 2016.

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

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

Total naphthalenes was detected above the NMWQCCR standard in monitoring well MW-7. Various COCs, including total xylenes, benzene, toluene, and ethylbenzene were detected in wells MW-7 and MW-11 below the applicable NMWQCCR standards. Monitoring wells MW-8, MW-9, and MW-12 did not contain any organic hydrocarbon COCs above the laboratory PQL. All monitoring wells on site show reduced contaminant concentrations relative to the previous monitoring event in August, 2016. Figure 4. illustrates possible seasonal trends in groundwater elevations and total naphthalene concentrations. Based on the time-series data there does not appear to be any significant relationship between groundwater elevation and total naphthalene concentrations.

##### **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.

## Figures

1. Site Map
2. Potentiometric Surface Map
3. Groundwater Contaminant Concentration Map
4. MW-7 Groundwater Elevation vs. Total Naphthalene Time-Series Graph

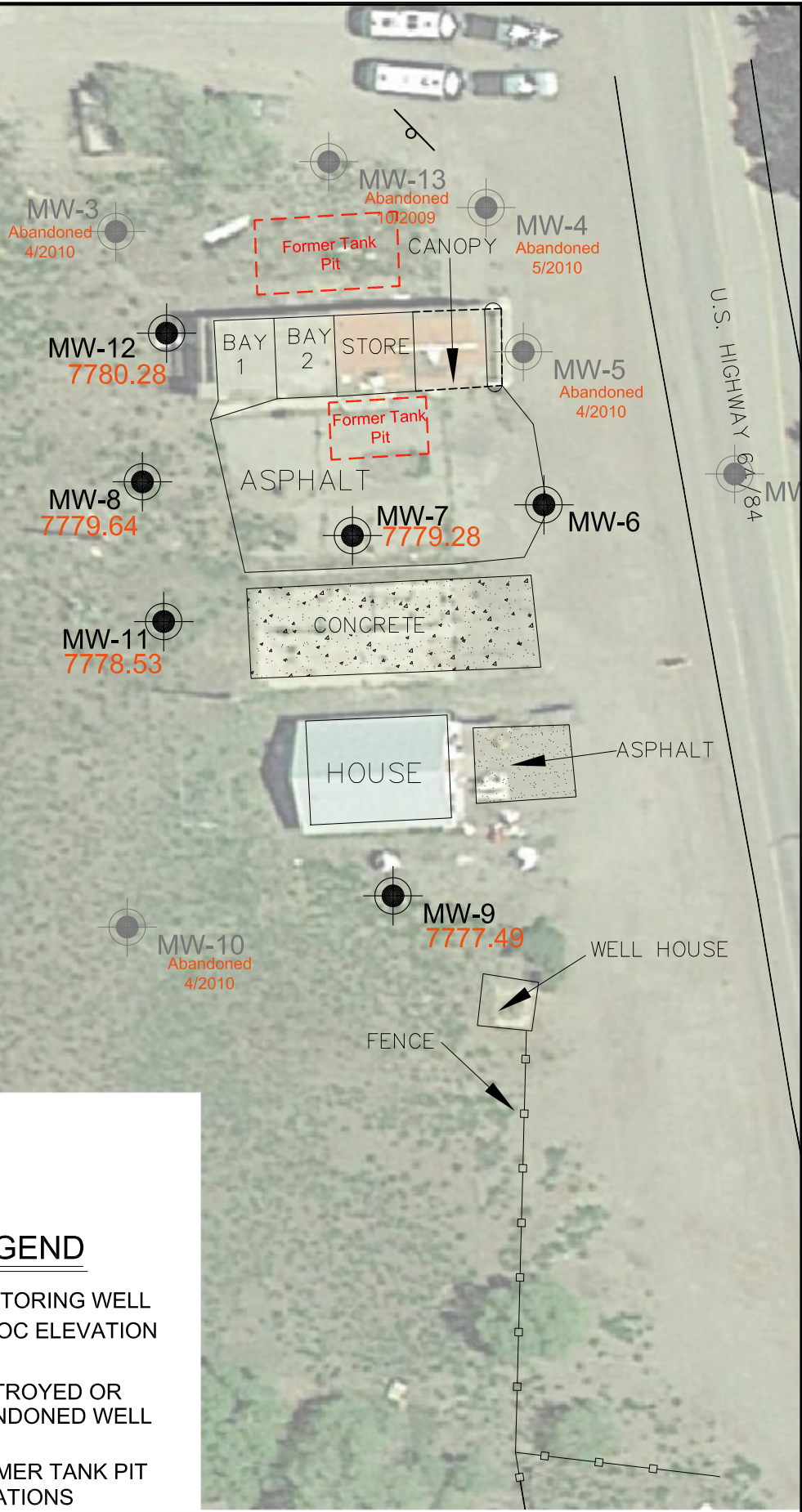
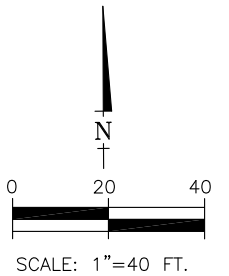
## Tables

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




## Appendices

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

## Figures



**LEGEND**


-  MW-3  
4545.45 MONITORING WELL  
W/ TOC ELEVATION
-  MW-9  
DESTROYED OR  
ABANDONED WELL
-  FORMER TANK PIT  
LOCATIONS

Aerial From from Google Earth Pro (2015)

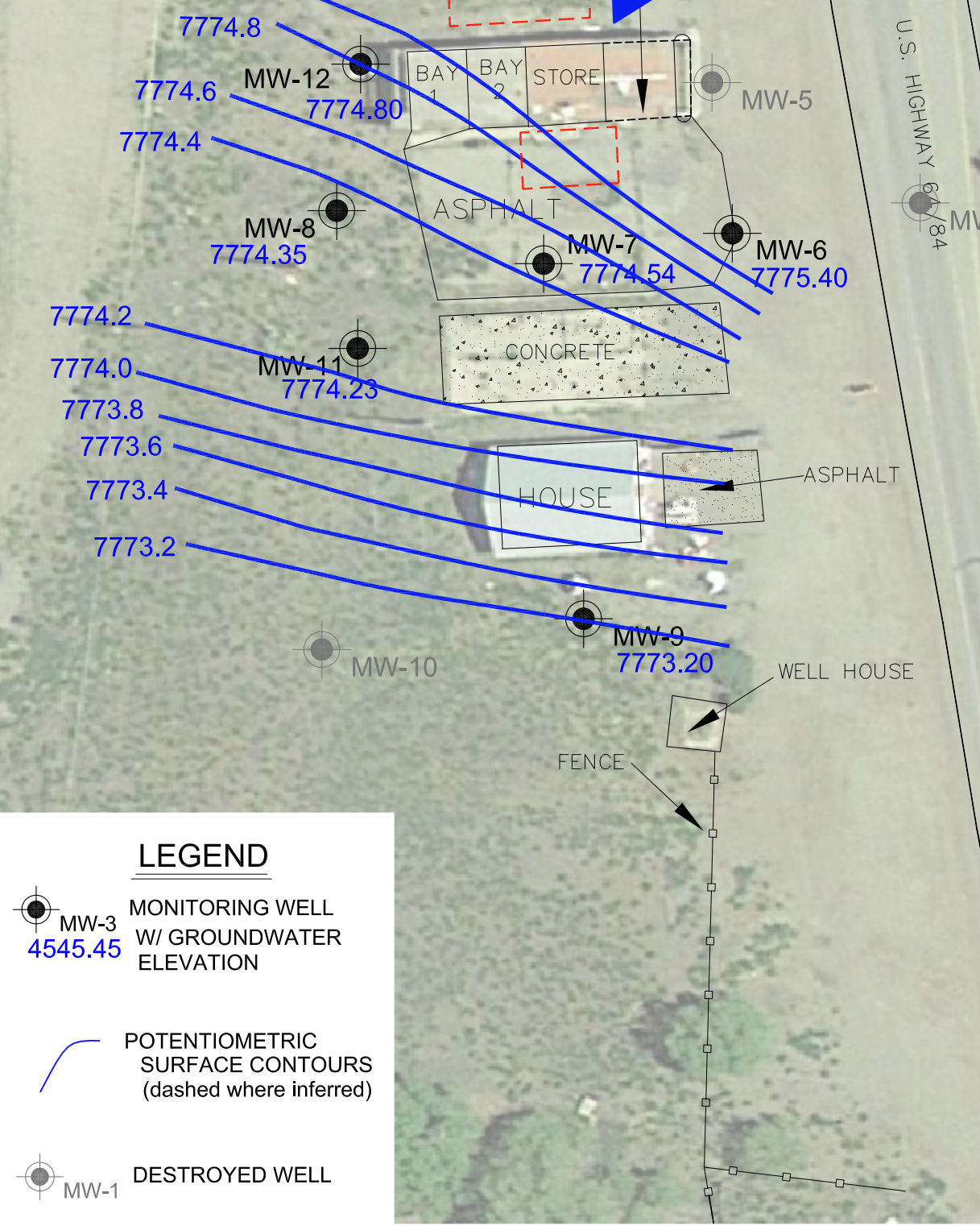
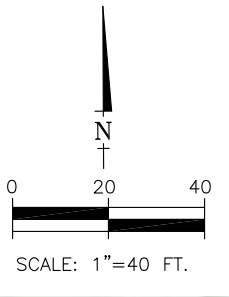
Drawn MAE	Checked LVA	Approved SAM
Date:	APRIL, 2017	
Scale:	Horiz: 1" = 40" Vert: NA	
Project No:	3423555	
Sheet:	FIGURE 1	

**SITE MAP**  
**CONOCO MINI-MART UST RELEASE SITE**  
**3837 US HIGHWAY 64, CHAMA, NEW MEXICO**

**SOUDER, MILLER & ASSOCIATES**  
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**LEGEND**

- MONITORING WELL W/ GROUNDWATER ELEVATION
- POTENTIOMETRIC SURFACE CONTOURS (dashed where inferred)
- DESTROYED WELL

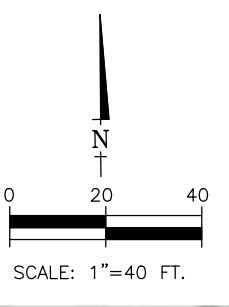
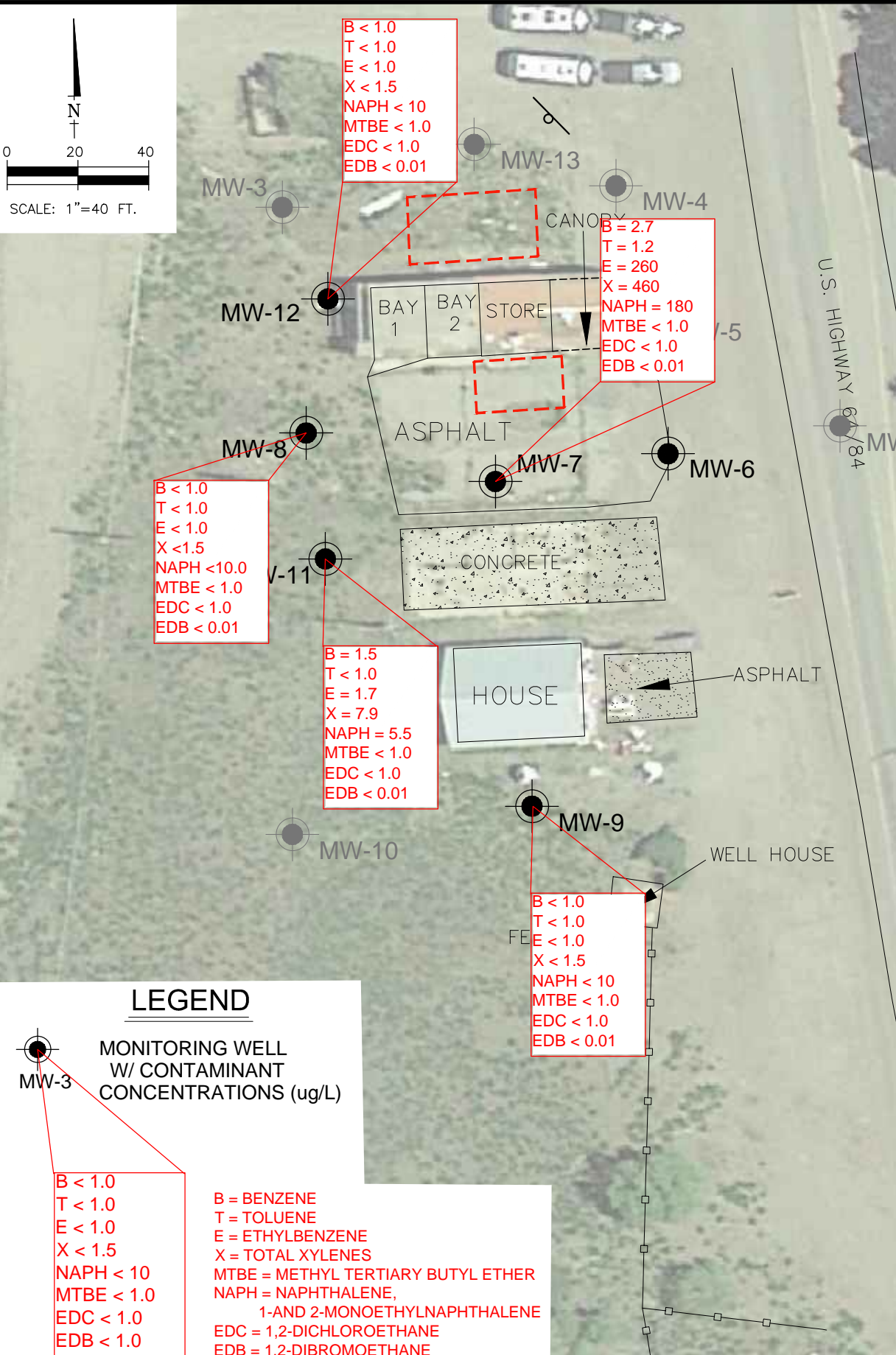
Drawn	MJK	Checked	MAE	Approved	SAM
Date:	APRIL, 2017				
Scale:	Horiz: 1" = 40' Vert: NA				
Project No:	3423555				
Sheet:	FIGURE 2				

**POTENTIOMETRIC SURFACE MAP - APRIL 18, 2017**  
**CONOCO MINI-MART UST RELEASE SITE**  
**3837 US HIGHWAY 64, CHAMA, NEW MEXICO**

**SOUDER, MILLER & ASSOCIATES**  
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Aerial From from Google Earth Pro (2015)



**LEGEND**



MONITORING WELL  
W/ CONTAMINANT  
CONCENTRATIONS (ug/L)

B < 1.0  
T < 1.0  
E < 1.0  
X < 1.5  
NAPH < 10  
MTBE < 1.0  
EDC < 1.0  
EDB < 1.0

B = BENZENE  
T = TOLUENE  
E = ETHYLBENZENE  
X = TOTAL XYLENES  
MTBE = METHYL TERTIARY BUTYL ETHER  
NAPH = NAPHTHALENE,  
1-AND 2-MONOETHYLNAPHTHALENE  
EDC = 1,2-DICHLOROETHANE  
EDB = 1,2-DIBROMOETHANE

Aerial From from Google Earth Pro (2015)

Drawn MJK	Checked MAE	Approved SAM
Date: APRIL, 2017		
Scale: Horiz: 1" = 40' Vert: N/A		
Project No.: 3423555		
Sheet: <b>FIGURE 3</b>		

**POTENTIOMETRIC SURFACE MAP - APRIL 18, 2017**  
**CONOCO MINI-MART UST RELEASE SITE**  
**3837 US HIGHWAY 64, CHAMA, NEW MEXICO**

**SOUDER, MILLER & ASSOCIATES**

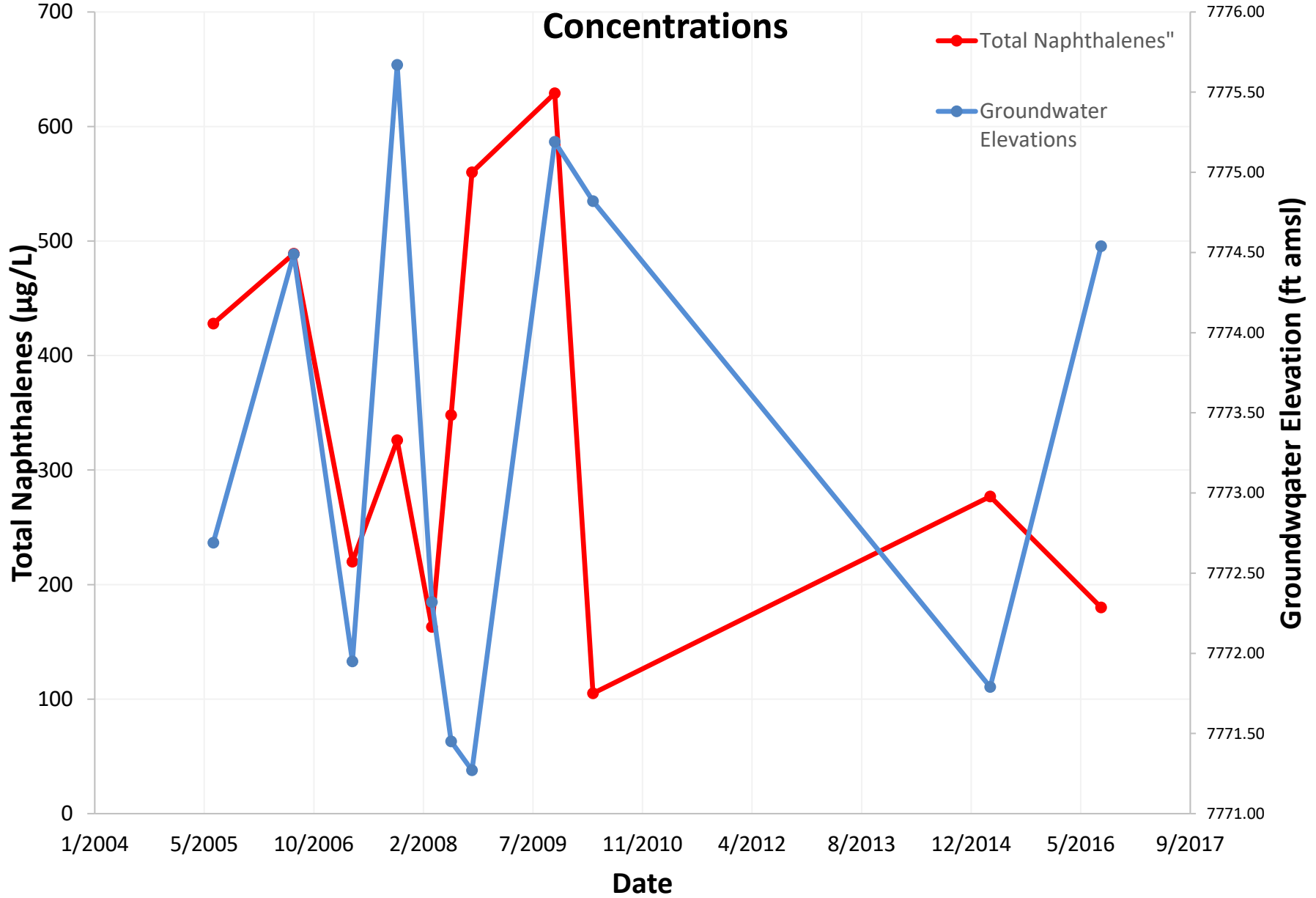
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Figure 4. MW-7 Groundwater Elevations & Total Naphthalene



## 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	Lead
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 <sup>o</sup>	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 <sup>o</sup>	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 <sup>o</sup>	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 <sup>o</sup>	NA
	04/04/07*	<2.5	<2.5	<2.5	<5.0	<5.0	NA	NA	<1.0 <sup>o</sup>	<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 (Continued). 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	Lead
MW-5	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								
	10/14/09	NOT SAMPLED								
	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-6	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	NOT SAMPLED								
	04/18/17	NOT SAMPLED								
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-7	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
04/18/17	2.7	1.2	260	460	<1.0	<1.0	<0.010	180	NA	
NMWQCCR/NMPSTR Standards	10	750	750	620	100	10	0.1	30	0.05	

**Table 1 (Continued). 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	Lead
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 <sup>o</sup>	NA
	04/04/07*	50	8.0	570	1127	81	NA	NA	234 <sup>o</sup>	<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
04/18/17	<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-9	04/04/07*	<2.5	<2.5	<2.5	<5.0	<5.0	NA	NA	<1.0 <sup>o</sup>	<0.009
	10/25/07*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<6.0 <sup>o</sup>	NA
	04/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.0 <sup>o</sup>	NA
	06/27/08*	8.2	3.9	50	<2.0	<2.5	NA	NA	5.0 <sup>o</sup>	NA
	10/01/08*	11	7.5	58	61	<2.5	NA	NA	<10 <sup>o</sup>	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
04/18/17	<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-10	04/04/07*	<2.5	<2.5	<2.5	<5.0	<5.0	NA	NA	<1.0 <sup>o</sup>	<0.009
	10/25/07*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<6.0 <sup>o</sup>	NA
	04/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<2.0 <sup>o</sup>	NA
	06/27/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	5.0 <sup>o</sup>	NA
	10/01/08*	<1.0	<1.0	<1.0	<2.0	<2.5	NA	NA	<10 <sup>o</sup>	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 (Continued). 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	Lead
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
04/18/17	<1.0	<1.0	<1.0	7.9	<1.0	<1.0	<0.010	5.5	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
04/18/17	<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 (Continued). 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 (Continued). 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		04/18/17	
			Depth to Water	Water Elev.	Depth to Water	Water Elev.	Depth to Water	Water Elev.
MW-6 *	7778.61	12.0	NM		NM		3.21	7775.40
MW-7 *	7779.28	12.5	4.46	7774.82	7.49	7771.79	4.74	7774.54
MW-8 *	7779.64	15.0	5.50	7774.14	8.44	7771.20	5.29	7774.35
MW-9	7777.49	11.3	Not Measured		7.56	7769.93	4.29	7773.20
MW-11	7778.53	12.0	4.49	7774.04	7.66	7770.87	4.30	7774.23
MW-12	7780.28	13.5	5.53	7774.75	8.06	7772.22	5.48	7774.80
Average DTW			4.83		7.69		4.70	

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  
 NM= Not Measured



# 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.

Prior to collection of samples, monitoring wells were purged of three well bore volumes using a new disposable high-density polyethylene (HDPE) bailer. The purged water was disposed of on concrete surfaces within the boundaries of the property and allowed to evaporate.

Groundwater samples were collected into the following laboratory-provided containers with appropriate preservatives for the following analyses:

- **EPA Method 8260** – Samples were collected in three-40-ml VOAs preserved with mercuric chloride. All VOAs were checked to ensure no headspace was present prior to labeling and securing the bottles.
- **EPA Method 504.1** – Samples were collected in two 40-ml VOAs preserved with sodium thiosulfate. All VOAs were checked to ensure no headspace was present prior to labeling and securing the bottles

Following collection, 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 hand-delivery 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: 4/18/17      Time On-site: 10:35      Time Off-site: 1300      Sampled by: M. Kelly

Weather conditions: clear & sunny / ~60°F

Equipment Used: \_\_\_\_\_

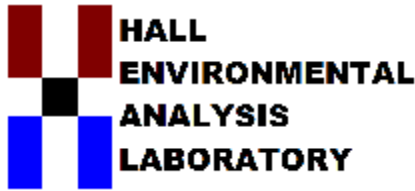
Monitoring Well Data

MW ID	Total Depth	DTW	Gallons		Sampling Time	Remarks
			to purge	purged		
MW-6	11.5	3.21				
MW-7	12.2	4.74	3.73	4.0	11:35	Dark color / Strong odor
MW-8	<del>15.75</del> 15	5.29	4.85	5.0	1220	Dark color / Slight odor
MW-9	<del>13.8</del> <del>11.5</del>	4.29	4.75	5.0	11:15	Slightly muddy color / No odor
MW-11	<del>12.5</del> <del>13.1</del>	4.30	4.10	4.33	12:00	Clear / No odor
MW-12	13.1	5.48	3.81	4.0	1240	Some color & Slight odor

Notes: Sample for 8260B & EDB 40504.1

## 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)

April 24, 2017

Matt Earthman

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

RE: Chama Mini Mart

OrderNo.: 1704808

Dear Matt Earthman:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/18/2017 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', is written over a white background.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1704808

Date Reported: 4/24/2017

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** MW-7

**Project:** Chama Mini Mart

**Collection Date:** 4/18/2017 11:35:00 AM

**Lab ID:** 1704808-001

**Matrix:** AQUEOUS

**Received Date:** 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: <b>JME</b>
1,2-Dibromoethane	ND	0.010		µg/L	1	4/20/2017 6:19:33 PM	31337
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>rde</b>
Benzene	2.7	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Toluene	1.2	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Ethylbenzene	260	10		µg/L	10	4/20/2017 11:38:00 AM	R42270
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2,4-Trimethylbenzene	200	10		µg/L	10	4/20/2017 11:38:00 AM	R42270
1,3,5-Trimethylbenzene	180	10		µg/L	10	4/20/2017 11:38:00 AM	R42270
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Naphthalene	86	2.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1-Methylnaphthalene	41	4.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
2-Methylnaphthalene	53	4.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Acetone	ND	10		µg/L	1	4/20/2017 1:36:00 PM	R42270
Bromobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Bromodichloromethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Bromoform	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Bromomethane	ND	3.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
2-Butanone	ND	10		µg/L	1	4/20/2017 1:36:00 PM	R42270
Carbon disulfide	ND	10		µg/L	1	4/20/2017 1:36:00 PM	R42270
Carbon Tetrachloride	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Chlorobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Chloroethane	ND	2.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Chloroform	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Chloromethane	ND	3.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
2-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
4-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
cis-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Dibromochloromethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Dibromomethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1-Dichloroethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1-Dichloroethene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

CLIENT: Souder Miller & Associates

Client Sample ID: MW-7

Project: Chama Mini Mart

Collection Date: 4/18/2017 11:35:00 AM

Lab ID: 1704808-001

Matrix: AQUEOUS

Received Date: 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
1,3-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
2,2-Dichloropropane	ND	2.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Hexachlorobutadiene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
2-Hexanone	ND	10		µg/L	1	4/20/2017 1:36:00 PM	R42270
Isopropylbenzene	24	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
4-Isopropyltoluene	16	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
4-Methyl-2-pentanone	ND	10		µg/L	1	4/20/2017 1:36:00 PM	R42270
Methylene Chloride	ND	3.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
n-Butylbenzene	17	3.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
n-Propylbenzene	54	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
sec-Butylbenzene	8.5	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Styrene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
tert-Butylbenzene	4.5	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
trans-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Trichlorofluoromethane	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Vinyl chloride	ND	1.0		µg/L	1	4/20/2017 1:36:00 PM	R42270
Xylenes, Total	460	15		µg/L	10	4/20/2017 11:38:00 AM	R42270
Surr: 1,2-Dichloroethane-d4	87.1	70-130		%Rec	1	4/20/2017 1:36:00 PM	R42270
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	4/20/2017 1:36:00 PM	R42270
Surr: Dibromofluoromethane	97.8	70-130		%Rec	1	4/20/2017 1:36:00 PM	R42270
Surr: Toluene-d8	99.3	70-130		%Rec	1	4/20/2017 1:36:00 PM	R42270

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
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 1704808

Date Reported: 4/24/2017

CLIENT: Souder Miller & Associates

Client Sample ID: MW-8

Project: Chama Mini Mart

Collection Date: 4/18/2017 12:20:00 PM

Lab ID: 1704808-002

Matrix: AQUEOUS

Received Date: 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: JME
1,2-Dibromoethane	ND	0.010		µg/L	1	4/20/2017 6:35:01 PM	31337
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
Benzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Toluene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Ethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Naphthalene	ND	2.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
2-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Acetone	ND	10		µg/L	1	4/20/2017 3:12:00 PM	R42270
Bromobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Bromodichloromethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Bromoform	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Bromomethane	ND	3.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
2-Butanone	ND	10		µg/L	1	4/20/2017 3:12:00 PM	R42270
Carbon disulfide	ND	10		µg/L	1	4/20/2017 3:12:00 PM	R42270
Carbon Tetrachloride	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Chlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Chloroethane	ND	2.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Chloroform	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Chloromethane	ND	3.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
2-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
4-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
cis-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Dibromochloromethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Dibromomethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1-Dichloroethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1-Dichloroethene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** MW-8

**Project:** Chama Mini Mart

**Collection Date:** 4/18/2017 12:20:00 PM

**Lab ID:** 1704808-002

**Matrix:** AQUEOUS

**Received Date:** 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
1,3-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
2,2-Dichloropropane	ND	2.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Hexachlorobutadiene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
2-Hexanone	ND	10		µg/L	1	4/20/2017 3:12:00 PM	R42270
Isopropylbenzene	1.1	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
4-Isopropyltoluene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
4-Methyl-2-pentanone	ND	10		µg/L	1	4/20/2017 3:12:00 PM	R42270
Methylene Chloride	ND	3.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
n-Butylbenzene	ND	3.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
n-Propylbenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
sec-Butylbenzene	2.4	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Styrene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
tert-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
trans-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Trichlorofluoromethane	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Vinyl chloride	ND	1.0		µg/L	1	4/20/2017 3:12:00 PM	R42270
Xylenes, Total	ND	1.5		µg/L	1	4/20/2017 3:12:00 PM	R42270
Surr: 1,2-Dichloroethane-d4	84.6	70-130		%Rec	1	4/20/2017 3:12:00 PM	R42270
Surr: 4-Bromofluorobenzene	110	70-130		%Rec	1	4/20/2017 3:12:00 PM	R42270
Surr: Dibromofluoromethane	96.0	70-130		%Rec	1	4/20/2017 3:12:00 PM	R42270
Surr: Toluene-d8	104	70-130		%Rec	1	4/20/2017 3:12:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

CLIENT: Souder Miller & Associates

Client Sample ID: MW-9

Project: Chama Mini Mart

Collection Date: 4/18/2017 11:15:00 AM

Lab ID: 1704808-003

Matrix: AQUEOUS

Received Date: 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: <b>JME</b>
1,2-Dibromoethane	ND	0.010		µg/L	1	4/20/2017 6:50:15 PM	31337
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>rde</b>
Benzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Toluene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Ethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Naphthalene	ND	2.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
2-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Acetone	ND	10		µg/L	1	4/20/2017 3:35:00 PM	R42270
Bromobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Bromodichloromethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Bromoform	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Bromomethane	ND	3.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
2-Butanone	ND	10		µg/L	1	4/20/2017 3:35:00 PM	R42270
Carbon disulfide	ND	10		µg/L	1	4/20/2017 3:35:00 PM	R42270
Carbon Tetrachloride	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Chlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Chloroethane	ND	2.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Chloroform	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Chloromethane	ND	3.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
2-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
4-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
cis-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Dibromochloromethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Dibromomethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1-Dichloroethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1-Dichloroethene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

CLIENT: Souder Miller & Associates

Client Sample ID: MW-9

Project: Chama Mini Mart

Collection Date: 4/18/2017 11:15:00 AM

Lab ID: 1704808-003

Matrix: AQUEOUS

Received Date: 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
1,3-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
2,2-Dichloropropane	ND	2.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Hexachlorobutadiene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
2-Hexanone	ND	10		µg/L	1	4/20/2017 3:35:00 PM	R42270
Isopropylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
4-Isopropyltoluene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
4-Methyl-2-pentanone	ND	10		µg/L	1	4/20/2017 3:35:00 PM	R42270
Methylene Chloride	ND	3.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
n-Butylbenzene	ND	3.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
n-Propylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
sec-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Styrene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
tert-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
trans-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Trichlorofluoromethane	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Vinyl chloride	ND	1.0		µg/L	1	4/20/2017 3:35:00 PM	R42270
Xylenes, Total	ND	1.5		µg/L	1	4/20/2017 3:35:00 PM	R42270
Surr: 1,2-Dichloroethane-d4	85.8	70-130		%Rec	1	4/20/2017 3:35:00 PM	R42270
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/20/2017 3:35:00 PM	R42270
Surr: Dibromofluoromethane	97.4	70-130		%Rec	1	4/20/2017 3:35:00 PM	R42270
Surr: Toluene-d8	106	70-130		%Rec	1	4/20/2017 3:35:00 PM	R42270

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
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 1704808

Date Reported: 4/24/2017

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** MW-11

**Project:** Chama Mini Mart

**Collection Date:** 4/18/2017 12:00:00 PM

**Lab ID:** 1704808-004

**Matrix:** AQUEOUS

**Received Date:** 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: <b>JME</b>
1,2-Dibromoethane	ND	0.010		µg/L	1	4/20/2017 7:05:32 PM	31337
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>rde</b>
Benzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Toluene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Ethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Naphthalene	5.5	2.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
2-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Acetone	ND	10		µg/L	1	4/20/2017 3:59:00 PM	R42270
Bromobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Bromodichloromethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Bromoform	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Bromomethane	ND	3.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
2-Butanone	ND	10		µg/L	1	4/20/2017 3:59:00 PM	R42270
Carbon disulfide	ND	10		µg/L	1	4/20/2017 3:59:00 PM	R42270
Carbon Tetrachloride	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Chlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Chloroethane	ND	2.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Chloroform	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Chloromethane	ND	3.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
2-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
4-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
cis-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Dibromochloromethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Dibromomethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1-Dichloroethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1-Dichloroethene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

CLIENT: Souder Miller & Associates

Client Sample ID: MW-11

Project: Chama Mini Mart

Collection Date: 4/18/2017 12:00:00 PM

Lab ID: 1704808-004

Matrix: AQUEOUS

Received Date: 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
1,3-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
2,2-Dichloropropane	ND	2.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Hexachlorobutadiene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
2-Hexanone	ND	10		µg/L	1	4/20/2017 3:59:00 PM	R42270
Isopropylbenzene	1.1	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
4-Isopropyltoluene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
4-Methyl-2-pentanone	ND	10		µg/L	1	4/20/2017 3:59:00 PM	R42270
Methylene Chloride	ND	3.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
n-Butylbenzene	ND	3.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
n-Propylbenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
sec-Butylbenzene	1.3	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Styrene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
tert-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
trans-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Trichlorofluoromethane	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Vinyl chloride	ND	1.0		µg/L	1	4/20/2017 3:59:00 PM	R42270
Xylenes, Total	7.9	1.5		µg/L	1	4/20/2017 3:59:00 PM	R42270
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%Rec	1	4/20/2017 3:59:00 PM	R42270
Surr: 4-Bromofluorobenzene	109	70-130		%Rec	1	4/20/2017 3:59:00 PM	R42270
Surr: Dibromofluoromethane	99.2	70-130		%Rec	1	4/20/2017 3:59:00 PM	R42270
Surr: Toluene-d8	106	70-130		%Rec	1	4/20/2017 3:59:00 PM	R42270

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
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 1704808

Date Reported: 4/24/2017

CLIENT: Souder Miller & Associates

Client Sample ID: MW-12

Project: Chama Mini Mart

Collection Date: 4/18/2017 12:40:00 PM

Lab ID: 1704808-005

Matrix: AQUEOUS

Received Date: 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: JME
1,2-Dibromoethane	ND	0.010		µg/L	1	4/20/2017 7:21:03 PM	31337
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
Benzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Toluene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Ethylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Naphthalene	ND	2.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
2-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Acetone	ND	10		µg/L	1	4/20/2017 4:23:00 PM	R42270
Bromobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Bromodichloromethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Bromoform	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Bromomethane	ND	3.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
2-Butanone	ND	10		µg/L	1	4/20/2017 4:23:00 PM	R42270
Carbon disulfide	ND	10		µg/L	1	4/20/2017 4:23:00 PM	R42270
Carbon Tetrachloride	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Chlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Chloroethane	ND	2.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Chloroform	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Chloromethane	ND	3.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
2-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
4-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
cis-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Dibromochloromethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Dibromomethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1-Dichloroethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1-Dichloroethene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** MW-12

**Project:** Chama Mini Mart

**Collection Date:** 4/18/2017 12:40:00 PM

**Lab ID:** 1704808-005

**Matrix:** AQUEOUS

**Received Date:** 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
1,3-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
2,2-Dichloropropane	ND	2.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Hexachlorobutadiene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
2-Hexanone	ND	10		µg/L	1	4/20/2017 4:23:00 PM	R42270
Isopropylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
4-Isopropyltoluene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
4-Methyl-2-pentanone	ND	10		µg/L	1	4/20/2017 4:23:00 PM	R42270
Methylene Chloride	ND	3.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
n-Butylbenzene	ND	3.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
n-Propylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
sec-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Styrene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
tert-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
trans-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Trichlorofluoromethane	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Vinyl chloride	ND	1.0		µg/L	1	4/20/2017 4:23:00 PM	R42270
Xylenes, Total	ND	1.5		µg/L	1	4/20/2017 4:23:00 PM	R42270
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%Rec	1	4/20/2017 4:23:00 PM	R42270
Surr: 4-Bromofluorobenzene	108	70-130		%Rec	1	4/20/2017 4:23:00 PM	R42270
Surr: Dibromofluoromethane	98.4	70-130		%Rec	1	4/20/2017 4:23:00 PM	R42270
Surr: Toluene-d8	105	70-130		%Rec	1	4/20/2017 4:23:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** TRIP BLANK

**Project:** Chama Mini Mart

**Collection Date:**

**Lab ID:** 1704808-006

**Matrix:** TRIP BLANK

**Received Date:** 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8011/504.1: EDB</b>							Analyst: <b>JME</b>
1,2-Dibromoethane	ND	0.010		µg/L	1	4/20/2017 7:36:17 PM	31337
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: <b>rde</b>
Benzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Toluene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Ethylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2-Dichloroethane (EDC)	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2-Dibromoethane (EDB)	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Naphthalene	ND	2.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
2-Methylnaphthalene	ND	4.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Acetone	ND	10		µg/L	1	4/20/2017 4:47:00 PM	R42270
Bromobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Bromodichloromethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Bromoform	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Bromomethane	ND	3.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
2-Butanone	ND	10		µg/L	1	4/20/2017 4:47:00 PM	R42270
Carbon disulfide	ND	10		µg/L	1	4/20/2017 4:47:00 PM	R42270
Carbon Tetrachloride	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Chlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Chloroethane	ND	2.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Chloroform	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Chloromethane	ND	3.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
2-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
4-Chlorotoluene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
cis-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
cis-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2-Dibromo-3-chloropropane	ND	2.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Dibromochloromethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Dibromomethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,3-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,4-Dichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Dichlorodifluoromethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1-Dichloroethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1-Dichloroethene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270

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 1704808

Date Reported: 4/24/2017

**CLIENT:** Souder Miller & Associates

**Client Sample ID:** TRIP BLANK

**Project:** Chama Mini Mart

**Collection Date:**

**Lab ID:** 1704808-006

**Matrix:** TRIP BLANK

**Received Date:** 4/18/2017 3:40:00 PM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8260B: VOLATILES</b>							Analyst: rde
1,3-Dichloropropane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
2,2-Dichloropropane	ND	2.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Hexachlorobutadiene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
2-Hexanone	ND	10		µg/L	1	4/20/2017 4:47:00 PM	R42270
Isopropylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
4-Isopropyltoluene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
4-Methyl-2-pentanone	ND	10		µg/L	1	4/20/2017 4:47:00 PM	R42270
Methylene Chloride	ND	3.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
n-Butylbenzene	ND	3.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
n-Propylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
sec-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Styrene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
tert-Butylbenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1,1,2-Tetrachloroethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1,2,2-Tetrachloroethane	ND	2.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Tetrachloroethene (PCE)	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
trans-1,2-DCE	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
trans-1,3-Dichloropropene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2,3-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2,4-Trichlorobenzene	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1,1-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,1,2-Trichloroethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Trichloroethene (TCE)	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Trichlorofluoromethane	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
1,2,3-Trichloropropane	ND	2.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Vinyl chloride	ND	1.0		µg/L	1	4/20/2017 4:47:00 PM	R42270
Xylenes, Total	ND	1.5		µg/L	1	4/20/2017 4:47:00 PM	R42270
Surr: 1,2-Dichloroethane-d4	89.5	70-130		%Rec	1	4/20/2017 4:47:00 PM	R42270
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	4/20/2017 4:47:00 PM	R42270
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/20/2017 4:47:00 PM	R42270
Surr: Toluene-d8	107	70-130		%Rec	1	4/20/2017 4:47:00 PM	R42270

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704808

24-Apr-17

**Client:** Souder Miller & Associates

**Project:** Chama Mini Mart

Sample ID	<b>MB-31337</b>	SampType:	<b>MBLK</b>	TestCode:	<b>EPA Method 8011/504.1: EDB</b>					
Client ID:	<b>PBW</b>	Batch ID:	<b>31337</b>	RunNo:	<b>42265</b>					
Prep Date:	<b>4/20/2017</b>	Analysis Date:	<b>4/20/2017</b>	SeqNo:	<b>1327950</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.010								

Sample ID	<b>LCS-31337</b>	SampType:	<b>LCS</b>	TestCode:	<b>EPA Method 8011/504.1: EDB</b>					
Client ID:	<b>LCSW</b>	Batch ID:	<b>31337</b>	RunNo:	<b>42265</b>					
Prep Date:	<b>4/20/2017</b>	Analysis Date:	<b>4/20/2017</b>	SeqNo:	<b>1327952</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.11	0.010	0.1000	0	105	70	130			

Sample ID	<b>LCSD-31337</b>	SampType:	<b>LCSD</b>	TestCode:	<b>EPA Method 8011/504.1: EDB</b>					
Client ID:	<b>LCSS02</b>	Batch ID:	<b>31337</b>	RunNo:	<b>42265</b>					
Prep Date:	<b>4/20/2017</b>	Analysis Date:	<b>4/20/2017</b>	SeqNo:	<b>1327954</b>	Units:	<b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
1,2-Dibromoethane	0.10	0.010	0.1000	0	103	70	130	2.42	20	

**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                                    |
| 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 |

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1704808

24-Apr-17

**Client:** Souder Miller & Associates

**Project:** Chama Mini Mart

Sample ID <b>100ng lcs</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R42270</b>		RunNo: <b>42270</b>							
Prep Date:	Analysis Date: <b>4/20/2017</b>		SeqNo: <b>1328147</b>				Units: <b>µg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	19	1.0	20.00	0	92.6	70	130			
Toluene	20	1.0	20.00	0	98.1	70	130			
Chlorobenzene	20	1.0	20.00	0	102	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.4	70	130			
Trichloroethene (TCE)	18	1.0	20.00	0	91.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.9	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	10		10.00		104	70	130			

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R42270</b>		RunNo: <b>42270</b>							
Prep Date:	Analysis Date: <b>4/20/2017</b>		SeqNo: <b>1328148</b>				Units: <b>µg/L</b>			
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								

**Qualifiers:**

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- D Sample Diluted Due to Matrix
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- 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#: 1704808

24-Apr-17

**Client:** Souder Miller & Associates

**Project:** Chama Mini Mart

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260B: VOLATILES						
Client ID:	PBW	Batch ID:	R42270	RunNo:	42270						
Prep Date:		Analysis Date:	4/20/2017	SeqNo:	1328148	Units:	µg/L				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
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									
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									

**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#: 1704808

24-Apr-17

**Client:** Souder Miller & Associates

**Project:** Chama Mini Mart

Sample ID <b>rb</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R42270</b>		RunNo: <b>42270</b>							
Prep Date:	Analysis Date: <b>4/20/2017</b>		SeqNo: <b>1328148</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Vinyl chloride	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	8.9		10.00		88.6	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		104	70	130			
Surr: Dibromofluoromethane	10		10.00		101	70	130			
Surr: Toluene-d8	11		10.00		106	70	130			

Sample ID <b>1704808-001ams</b>	SampType: <b>MS</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>MW-7</b>	Batch ID: <b>R42270</b>		RunNo: <b>42270</b>							
Prep Date:	Analysis Date: <b>4/20/2017</b>		SeqNo: <b>1328168</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	21	1.0	20.00	2.260	91.4	70	130			
Toluene	17	1.0	20.00	1.180	79.3	70	130			
Chlorobenzene	16	1.0	20.00	0	81.0	70	130			
1,1-Dichloroethene	19	1.0	20.00	0	96.3	70	130			
Trichloroethene (TCE)	20	1.0	20.00	3.520	83.4	70	130			
Surr: 1,2-Dichloroethane-d4	8.5		10.00		84.9	70	130			
Surr: 4-Bromofluorobenzene	9.5		10.00		94.7	70	130			
Surr: Dibromofluoromethane	9.4		10.00		93.5	70	130			
Surr: Toluene-d8	9.6		10.00		95.8	70	130			

Sample ID <b>1704808-001amsd</b>	SampType: <b>MSD</b>		TestCode: <b>EPA Method 8260B: VOLATILES</b>							
Client ID: <b>MW-7</b>	Batch ID: <b>R42270</b>		RunNo: <b>42270</b>							
Prep Date:	Analysis Date: <b>4/20/2017</b>		SeqNo: <b>1328169</b>		Units: <b>µg/L</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	20	1.0	20.00	2.260	89.6	70	130	1.85	20	
Toluene	18	1.0	20.00	1.180	81.6	70	130	2.63	20	
Chlorobenzene	17	1.0	20.00	0	84.7	70	130	4.37	20	
1,1-Dichloroethene	19	1.0	20.00	0	94.3	70	130	2.05	20	
Trichloroethene (TCE)	19	1.0	20.00	3.520	77.9	70	130	5.54	20	
Surr: 1,2-Dichloroethane-d4	8.5		10.00		85.0	70	130	0	0	
Surr: 4-Bromofluorobenzene	11		10.00		107	70	130	0	0	
Surr: Dibromofluoromethane	9.5		10.00		95.1	70	130	0	0	
Surr: Toluene-d8	10		10.00		99.6	70	130	0	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
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- 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: 1704808

RcptNo: 1

Received By: Anne Thorne 4/18/2017 3:40:00 PM

Completed By: Ashley Gallegos 4/18/2017 5:16:26 PM

Reviewed By: ENM 04/19/17

*Anne Thorne*  
*AG*

**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? Yes  No   
(Note discrepancies on chain of custody)
- 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? Yes  No   
(If no, notify customer for authorization.)

# 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:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.6	Good	Not Present			

