



Souder, Miller & Associates

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(75) 689-7040

January 12, 2016

#5B24624 BG1

Catherine Green  
Regulatory Analyst  
Matador Resources Company  
PO Box 1933,  
Roswell, NM 88202

SUBJECT: SUMMARY OF WORK PERFORMED AT THE CHEVRON 12 #005, LEA COUNTY, NEW MEXICO

Dear Mrs. Green,

Souder, Miller & Associates (SMA) is pleased to submit this summary of work and laboratory analytical results for the remediated tank battery located on site, related to Chevron 12 # 005. SMA staff based in the Carlsbad, New Mexico office, within 55 miles of the project site performed the field sampling of the tank battery. All field samples were collected under the supervision Kellie Jones, Environmental Specialist, District 1 Oil Conservation Division, EMNRD. All samples collected were sent under chain of custody to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for laboratory analytical confirmation. Senior support and QAQC review on this project was provided by our Farmington office.

For questions or comments pertaining to the assessment, please feel free to contact me.

Submitted by:

Reviewed by:

SOUDER, MILLER & ASSOCIATES

J. Austin Weyant  
Project Scientist

Cynthia Gray, CHMM  
Senior Scientist



# SITE ASSESSMENT AND SAMPLE RESULTS

## CHEVRON 12 #005

API# 30-025-30682  
SECTION 12, T18S R32E, NMPM  
LEA COUNTY, NM



Prepared for:  
Matador Resources Company  
PO Box 1933,  
Roswell, NM 88202

Prepared by:  
Souder, Miller & Associates  
201 S. Halagueno  
Carlsbad, NM 88221  
575-689-7040

January 12, 2016  
SMA Reference  
5B24270 BG1

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## **1.0 Introduction**

At the request of Matador Resources Company, Souder, Miller & Associates (SMA) has prepared this summary of work related to the Chevron 12 #005. The site is located in Section 12, T 18S, R 32 E NMPM, Lea County, New Mexico, on land owned by the Bureau of Land Management (BLM).

## **2.0 Site Assessment**

On December 10, 2015, SMA Carlsbad Office personnel requested, on behalf of Matador Resources Company, that representatives from both NMOCD and BLM witness a sample event regarding the release site located on the Chevron 12 Fed 5 in Lea County, New Mexico. The purpose of the sample event was to document remediation and obtain approval from the New Mexico Oil Conservation Division (NMOCD) and Bureau of Land Management for closure of the open incident 1RP-3869.

## **3.0 Summary of Work Performed**

On December 16, 2015, after receiving 811 clearance, SMA field personnel assessed the remediated release area onsite with a gas powered auger and Photo Ionization Detector RAE 2000. The potentially affected area was found to be approximately 75 feet long and 20 feet wide. Delineation samples were taken to depths of three feet bgs. Specific sample locations for all samples are depicted on Figure 2 (Sample Location Map) along with sampling details. All samples were collected and processed according to NMOCD soil sampling procedures.

Each sample container was labeled, placed on ice in an insulated cooler, and chilled to a temperature of approximately 40°F (4°C). The cooler was then sealed for shipment to the laboratory. The soil samples were delivered to Hall Environmental Analysis Laboratory, in Albuquerque, New Mexico for TPH (GRO/ DRO) analysis by EPA Method 8015 (modified) and BTEX analyses by EPA Method 8021B. Proper chain-of-custody documentation accompanied the samples to the laboratory.

## **4.0 Conclusions and Recommendations**

The ranking for the Chevron 12 #005 site was previously established by Matador Resources as a 0. NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 0: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 5000 ppm TPH.

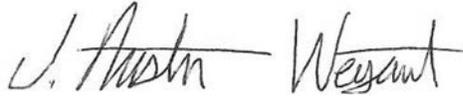
Laboratory analytical results for all final closure samples collected were below NMOCD action levels for Benzene, BTEX, and TPH as well as below laboratory detection limits for the methods used.

Soil sample locations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 2. Laboratory reports are included in Appendix A. Photo documentation is in Appendix B.

If there are any questions regarding this report, please contact either Austin Weyant at 575-689-7040 or Cindy Gray at 505-325-7535.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist

Reviewed by:



Cynthia Gray, CHMM  
Senior Scientist

**Figures:**

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Map

**Tables:**

Table 1: Summary of Field Screening

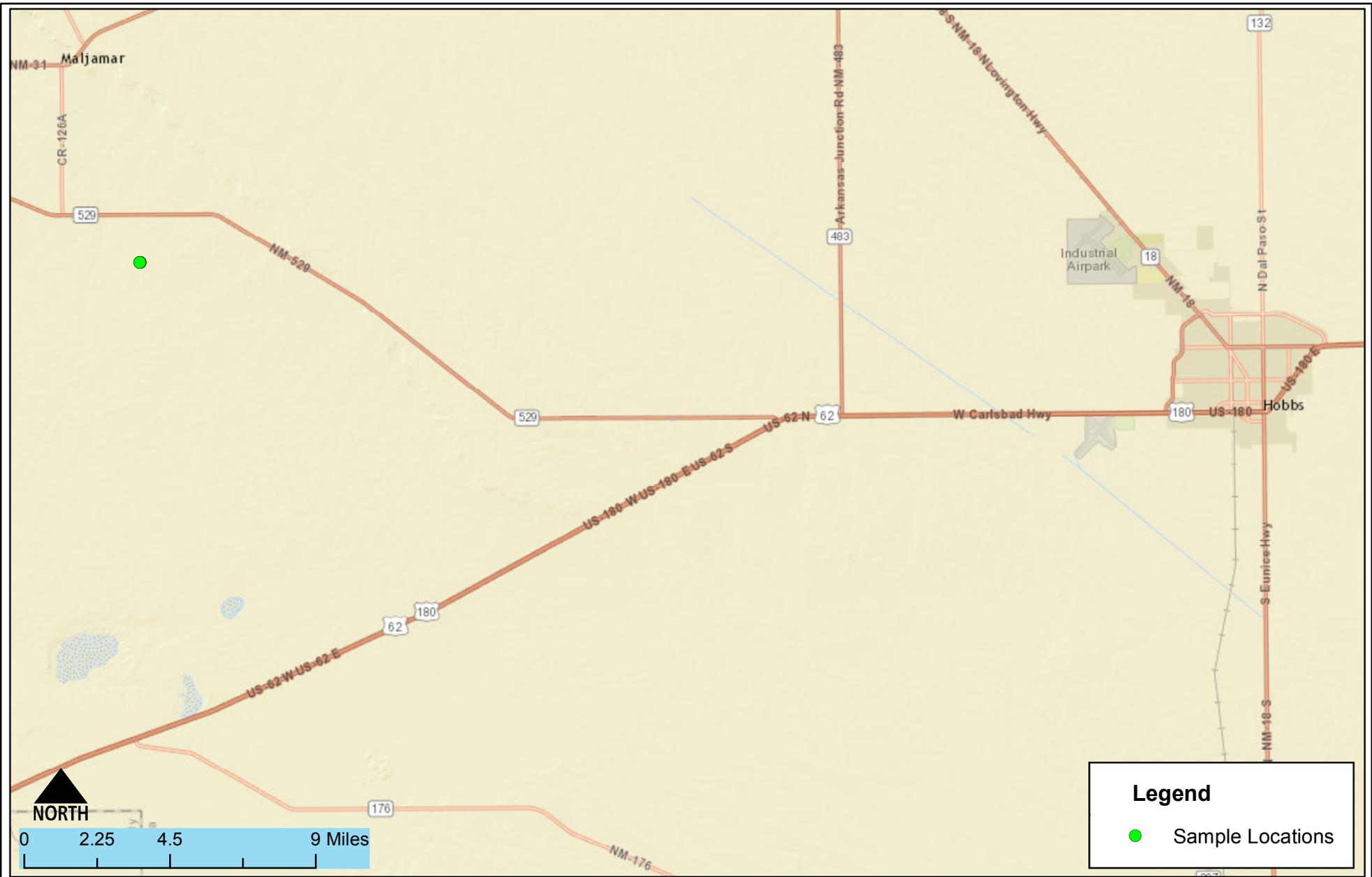
Table 2: Summary of Lab Results

**Appendix:**

Appendix A: Laboratory Analytical Results

Appendix B: Photos and Field Notes

# FIGURE 1 VICINITY MAP



Vicinity Map  
 Matador Resources Company-Chevron 12 Federal #5  
 Hobbs, New Mexico

Figure 1

Revisions  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 By: \_\_\_\_\_ Date: \_\_\_\_\_ Descr: \_\_\_\_\_  
 Copyright 2015 Souder, Miller & Associates - All Rights Reserved

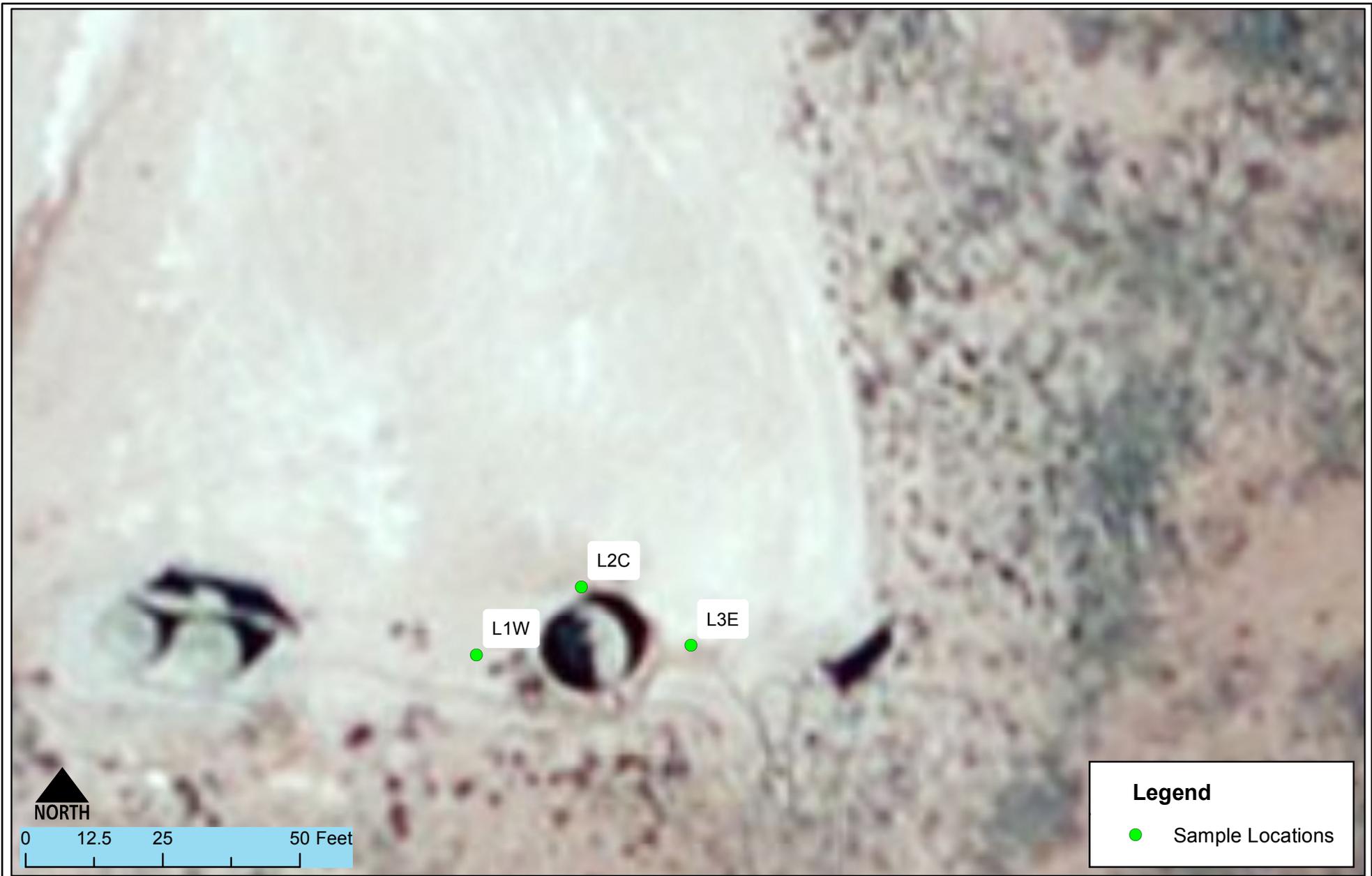
Drawn Lucas Middleton  
 Checked \_\_\_\_\_  
 Approved \_\_\_\_\_



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# FIGURE 2

## DETAILED SITE AND SAMPLE MAP



Site Detail and Sample Locations  
 Matador Resources Company - Chevron 12 Federal #5  
 Hobbs, New Mexico

Figure 2

Date Saved: 1/14/2016	By: _____	Date: _____	Revisions	Descr: _____
	By: _____	Date: _____		Descr: _____
Copyright 2015 Souder, Miller & Associates - All Rights Reserved				

Drawn	<u>Lucas Middleton</u>
Checked	_____
Approved	_____



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# TABLE 1

## SUMMARY OF FIELD RESULTS

Table 2: Summary of Field Screening Results

12/16/2015

<b>FIELD SCREENING RESULTS SUMMARY</b>					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	PID Results	Lab Sample Collected Y/N
12/16/2015	15:00	L1W-1	1	ND	y
12/16/2015	15:00	L1W-2	2	ND	y
12/16/2015	15:00	L1W-3	3	ND	y
12/16/2015	15:00	L2C-1	1	ND	y
12/16/2015	15:00	L2C-2	2	ND	y
12/16/2015	15:00	L2C-3	3	ND	y
12/16/2015	15:00	L3E-1	1	ND	y
12/16/2015	15:00	L3E-2	2	ND	y
12/16/2015	15:00	L3E-3	3	ND	y



# TABLE 2

## SUMMARY OF LABORATORY ANALYSES

**Table 2: Summary of Laboratory Analyses**

Analytical Report- 1512A53	Sample Number on Figure 2 Map	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1512A53-001	L1W-2	12/16/2015	2	BDL	BDL	BDL	43	N/A
1512A53-002	L1W-3	12/16/2015	3	BDL	BDL	BDL	BDL	N/A
1512A53-003	L2C-2	12/16/2015	2	BDL	BDL	BDL	BDL	N/A
1512A53-004	L2C-3	12/16/2015	3	BDL	BDL	BDL	BDL	N/A
1512A53-005	L3E-2	12/16/2015	2	BDL	BDL	BDL	15	N/A
1512A53-006	L3E-3	12/16/2015	3'	BDL	BDL	BDL	BDL	N/A

# APPENDIX A

# LABORATORY REPORT



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

December 30, 2015

Austin Weyant  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-7040  
FAX

RE: Chevron 12 #5

OrderNo.: 1512A53

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 6 sample(s) on 12/22/2015 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 qualifers 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 in a cursive style.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512A53

Date Reported: 12/30/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** LIW-2

**Project:** Chevron 12 #5

**Collection Date:** 12/16/2015 3:00:00 PM

**Lab ID:** 1512A53-001

**Matrix:** SOIL

**Received Date:** 12/22/2015 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	43	9.6		mg/Kg	1	12/28/2015 3:56:02 PM	22934
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/28/2015 3:56:02 PM	22934
Surr: DNOP	89.6	70-130		%REC	1	12/28/2015 3:56:02 PM	22934
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2015 4:27:39 PM	22945
Surr: BFB	80.1	66.2-112		%REC	1	12/24/2015 4:27:39 PM	22945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	12/24/2015 4:27:39 PM	22945
Benzene	ND	0.048		mg/Kg	1	12/24/2015 4:27:39 PM	22945
Toluene	ND	0.048		mg/Kg	1	12/24/2015 4:27:39 PM	22945
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2015 4:27:39 PM	22945
Xylenes, Total	ND	0.096		mg/Kg	1	12/24/2015 4:27:39 PM	22945
Surr: 4-Bromofluorobenzene	99.9	80-120		%REC	1	12/24/2015 4:27:39 PM	22945

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512A53

Date Reported: 12/30/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** LIW-3

**Project:** Chevron 12 #5

**Collection Date:** 12/16/2015 3:00:00 PM

**Lab ID:** 1512A53-002

**Matrix:** SOIL

**Received Date:** 12/22/2015 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/28/2015 4:17:48 PM	22934
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/28/2015 4:17:48 PM	22934
Surr: DNOP	89.4	70-130		%REC	1	12/28/2015 4:17:48 PM	22934
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	12/24/2015 4:52:14 PM	22945
Surr: BFB	88.5	66.2-112		%REC	1	12/24/2015 4:52:14 PM	22945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.093		mg/Kg	1	12/24/2015 4:52:14 PM	22945
Benzene	ND	0.046		mg/Kg	1	12/24/2015 4:52:14 PM	22945
Toluene	ND	0.046		mg/Kg	1	12/24/2015 4:52:14 PM	22945
Ethylbenzene	ND	0.046		mg/Kg	1	12/24/2015 4:52:14 PM	22945
Xylenes, Total	ND	0.093		mg/Kg	1	12/24/2015 4:52:14 PM	22945
Surr: 4-Bromofluorobenzene	119	80-120		%REC	1	12/24/2015 4:52:14 PM	22945

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512A53

Date Reported: 12/30/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2C-2

**Project:** Chevron 12 #5

**Collection Date:** 12/16/2015 3:00:00 PM

**Lab ID:** 1512A53-003

**Matrix:** SOIL

**Received Date:** 12/22/2015 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	12/28/2015 4:39:22 PM	22934
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/28/2015 4:39:22 PM	22934
Surr: DNOP	90.0	70-130		%REC	1	12/28/2015 4:39:22 PM	22934
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2015 5:16:51 PM	22945
Surr: BFB	84.1	66.2-112		%REC	1	12/24/2015 5:16:51 PM	22945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.095		mg/Kg	1	12/24/2015 5:16:51 PM	22945
Benzene	ND	0.048		mg/Kg	1	12/24/2015 5:16:51 PM	22945
Toluene	ND	0.048		mg/Kg	1	12/24/2015 5:16:51 PM	22945
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2015 5:16:51 PM	22945
Xylenes, Total	ND	0.095		mg/Kg	1	12/24/2015 5:16:51 PM	22945
Surr: 4-Bromofluorobenzene	111	80-120		%REC	1	12/24/2015 5:16:51 PM	22945

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512A53

Date Reported: 12/30/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L2C-3

**Project:** Chevron 12 #5

**Collection Date:** 12/16/2015 3:00:00 PM

**Lab ID:** 1512A53-004

**Matrix:** SOIL

**Received Date:** 12/22/2015 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	12/28/2015 5:01:09 PM	22934
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	12/28/2015 5:01:09 PM	22934
Surr: DNOP	92.3	70-130		%REC	1	12/28/2015 5:01:09 PM	22934
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	12/24/2015 8:56:49 PM	22945
Surr: BFB	79.7	66.2-112		%REC	1	12/24/2015 8:56:49 PM	22945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.096		mg/Kg	1	12/24/2015 8:56:49 PM	22945
Benzene	ND	0.048		mg/Kg	1	12/24/2015 8:56:49 PM	22945
Toluene	ND	0.048		mg/Kg	1	12/24/2015 8:56:49 PM	22945
Ethylbenzene	ND	0.048		mg/Kg	1	12/24/2015 8:56:49 PM	22945
Xylenes, Total	ND	0.096		mg/Kg	1	12/24/2015 8:56:49 PM	22945
Surr: 4-Bromofluorobenzene	104	80-120		%REC	1	12/24/2015 8:56:49 PM	22945

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		

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512A53

Date Reported: 12/30/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3E-2

**Project:** Chevron 12 #5

**Collection Date:** 12/16/2015 3:00:00 PM

**Lab ID:** 1512A53-005

**Matrix:** SOIL

**Received Date:** 12/22/2015 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	15	9.5		mg/Kg	1	12/28/2015 5:22:34 PM	22934
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	12/28/2015 5:22:34 PM	22934
Surr: DNOP	94.6	70-130		%REC	1	12/28/2015 5:22:34 PM	22934
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	12/24/2015 9:21:09 PM	22945
Surr: BFB	81.2	66.2-112		%REC	1	12/24/2015 9:21:09 PM	22945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.094		mg/Kg	1	12/24/2015 9:21:09 PM	22945
Benzene	ND	0.047		mg/Kg	1	12/24/2015 9:21:09 PM	22945
Toluene	ND	0.047		mg/Kg	1	12/24/2015 9:21:09 PM	22945
Ethylbenzene	ND	0.047		mg/Kg	1	12/24/2015 9:21:09 PM	22945
Xylenes, Total	ND	0.094		mg/Kg	1	12/24/2015 9:21:09 PM	22945
Surr: 4-Bromofluorobenzene	107	80-120		%REC	1	12/24/2015 9:21:09 PM	22945

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	

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1512A53

Date Reported: 12/30/2015

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** L3E-3

**Project:** Chevron 12 #5

**Collection Date:** 12/16/2015 3:00:00 PM

**Lab ID:** 1512A53-006

**Matrix:** SOIL

**Received Date:** 12/22/2015 9:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>KJH</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	12/28/2015 5:44:12 PM	22934
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	12/28/2015 5:44:12 PM	22934
Surr: DNOP	90.5	70-130		%REC	1	12/28/2015 5:44:12 PM	22934
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	12/24/2015 9:45:26 PM	22945
Surr: BFB	75.8	66.2-112		%REC	1	12/24/2015 9:45:26 PM	22945
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: <b>NSB</b>
Methyl tert-butyl ether (MTBE)	ND	0.098		mg/Kg	1	12/24/2015 9:45:26 PM	22945
Benzene	ND	0.049		mg/Kg	1	12/24/2015 9:45:26 PM	22945
Toluene	ND	0.049		mg/Kg	1	12/24/2015 9:45:26 PM	22945
Ethylbenzene	ND	0.049		mg/Kg	1	12/24/2015 9:45:26 PM	22945
Xylenes, Total	ND	0.098		mg/Kg	1	12/24/2015 9:45:26 PM	22945
Surr: 4-Bromofluorobenzene	98.5	80-120		%REC	1	12/24/2015 9:45:26 PM	22945

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	

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512A53

30-Dec-15

**Client:** Souder, Miller & Associates

**Project:** Chevron 12 #5

Sample ID <b>MB-22934</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22934</b>		RunNo: <b>31075</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/28/2015</b>		SeqNo: <b>950854</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		87.0	70	130			

Sample ID <b>LCS-22934</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22934</b>		RunNo: <b>31075</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/28/2015</b>		SeqNo: <b>950855</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.2	65.8	136			
Surr: DNOP	5.0		5.000		99.6	70	130			

Sample ID <b>MB-22969</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22969</b>		RunNo: <b>31107</b>							
Prep Date: <b>12/28/2015</b>	Analysis Date: <b>12/29/2015</b>		SeqNo: <b>951981</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	70	130			

Sample ID <b>LCS-22969</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22969</b>		RunNo: <b>31107</b>							
Prep Date: <b>12/28/2015</b>	Analysis Date: <b>12/29/2015</b>		SeqNo: <b>951987</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		98.1	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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512A53

30-Dec-15

**Client:** Souder, Miller & Associates

**Project:** Chevron 12 #5

Sample ID <b>MB-22945</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22945</b>		RunNo: <b>31062</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/24/2015</b>		SeqNo: <b>950266</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	820		1000		81.7	66.2	112			

Sample ID <b>LCS-22945</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22945</b>		RunNo: <b>31062</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/24/2015</b>		SeqNo: <b>950267</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	100	79.6	122			
Surr: BFB	910		1000		90.7	66.2	112			

**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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1512A53

30-Dec-15

**Client:** Souder, Miller & Associates

**Project:** Chevron 12 #5

Sample ID <b>MB-22945</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22945</b>		RunNo: <b>31062</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/24/2015</b>		SeqNo: <b>950286</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.050								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.1		1.000		108	80	120			

Sample ID <b>LCS-22945</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22945</b>		RunNo: <b>31062</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/24/2015</b>		SeqNo: <b>950305</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	1.0	0.10	1.000	0	103	67.2	121			
Benzene	1.0	0.050	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	102	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.1	0.10	3.000	0	103	80	120			
Surr: 4-Bromofluorobenzene	1.2		1.000		124	80	120			S

Sample ID <b>MB-22951</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>PBS</b>	Batch ID: <b>22951</b>		RunNo: <b>31062</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/24/2015</b>		SeqNo: <b>950330</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Sample ID <b>LCS-22951</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8021B: Volatiles</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>22951</b>		RunNo: <b>31062</b>							
Prep Date: <b>12/23/2015</b>	Analysis Date: <b>12/24/2015</b>		SeqNo: <b>950331</b>		Units: <b>%REC</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.2		1.000		119	80	120			

**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



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-CARLSBAD

Work Order Number: 1512A53

RcptNo: 1

Received by/date: JA 12/22/15

Logged By: Ashley Gallegos

12/22/2015 9:25:00 AM

*[Signature]*

Completed By: Ashley Gallegos

12/23/2015 8:36:52 AM

*[Signature]*

Reviewed By: FO

12/23/15

### 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? Courier

### Log In

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

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

### Special Handling (if applicable)

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

Person Notified:	_____	Date:	_____
By Whom:	_____	Via:	<input type="checkbox"/> eMail <input type="checkbox"/> Phone <input type="checkbox"/> Fax <input type="checkbox"/> In Person
Regarding:	_____		
Client Instructions:	_____		

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.3	Good	Yes			



# APPENDIX B

## PHOTOS AND FIELD NOTES

SUBJECT CHEVRON 12 #5

PROJECT

PAGE 11

CLIENT MATADOR

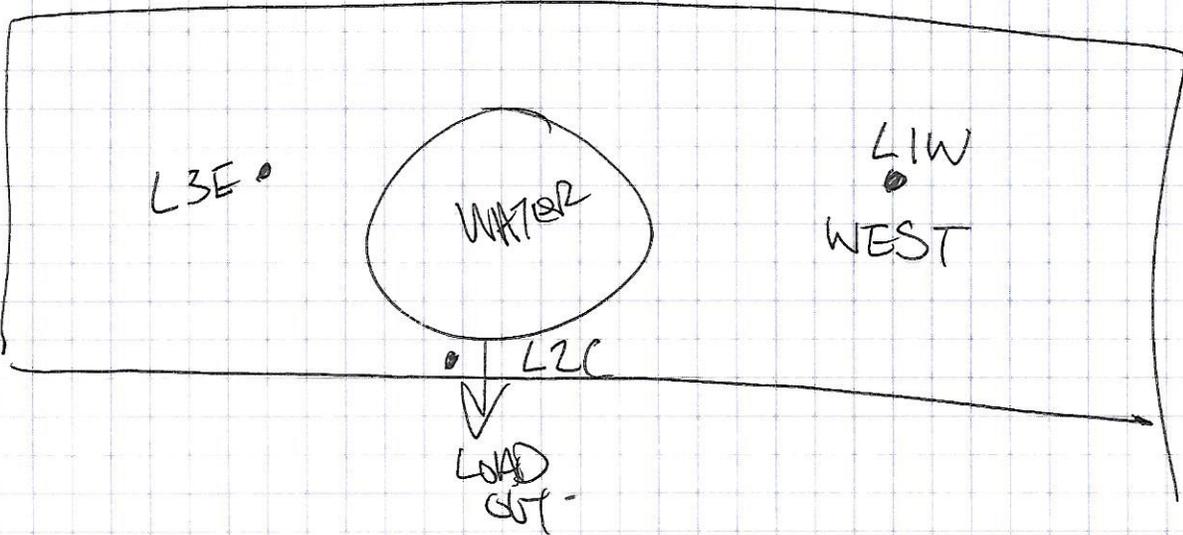
DATE 12/14/13

BY JAW

CHECKED

BY

- 3.15 SAMPLE



PID #223	CAL	1) 103 ppm
L1 2		2) 103
L1 3		3) 103 ppm
L2 2 - <del>0.4</del>		4) 103 ppm
L2 3		
L3 2	2.0	2.4
L3 3	1.0	1.4



# Job Site Safety Meeting Form

It is the expressed policy of SMA to conduct a safety meeting with all personnel on the jobsite prior to beginning any work. Where applicable the Site Supervisor will conduct the safety meeting and prepare the form. All safety meetings will comply with Tribal, State and Federal regulations and any safety procedures issued by the client.

Date: 12/16/15 Time: 3:16 PM Project Ref.: \_\_\_\_\_

Location: CHEURON 12 #5 Client: MAT

Type of work to be performed: Excavation of affected soils with Lab field analysis of Cl- for samples

SMA Supervisor  
AUSTIN WEYANT  
 (Print Name)

Austin Weyant  
 (Signature)

- |   |   |   |
|---|---|---|
| Hand, Eye and Head Safety <input checked="" type="checkbox"/> | Slip, Trip and Fall <input checked="" type="checkbox"/> | Heavy Equipment Operation <input checked="" type="checkbox"/> |
| Heat and Cold Stress <input checked="" type="checkbox"/>      | Fire/Explosion <input type="checkbox"/>                 | Confined Space <input type="checkbox"/>                       |
| Trench Safety <input checked="" type="checkbox"/>             | Inhalation Hazards <input type="checkbox"/>             | Noise <input type="checkbox"/>                                |
| Underground Hazards <input checked="" type="checkbox"/>       | Overhead Hazards <input type="checkbox"/>               | Contaminated Soils/Liquids <input type="checkbox"/>           |
| High Pressure Petroleum <input checked="" type="checkbox"/>   | Chemical Exposure <input type="checkbox"/>              | Pipeline Safety <input checked="" type="checkbox"/>           |
| Welding Safety <input type="checkbox"/>                       | Wildlife, Insects, Microbial <input type="checkbox"/>   | Chemical /HAZMAT exposure <input type="checkbox"/>            |
| Other: _____  |   |   |

Personal Protective Equipment:

	COVERALL	HARDHAT	SAFETY VEST	GLOVES	SAFETY BOOTS	NOMEX/FRC	PERSONAL GAS DETECTOR	HEARING PROTECTION	SAFETY GLASSES W/SIDE SHIELDS	LEVEL C	LEVEL B	LEVEL A	OTHER
DAILY ROUTINE													
SAMPLING (OIL FIELD)		X		X	X	X	X						
SAMPLING (NON-OIL FIELD)													
EXCAVATION (OIL FIELD)		X		X	X	X	X						
EXCAVATION (NON OIL FIELD)													
FACILITY INVENTORY													
CHEMICAL INVENTORY													
DRILLING OPERATIONS													
EMERGENCY RESPONSE													
UNDERGROUND STORAGE TANK REMOVAL													
HAZARDOUS MATERIAL CONTAINMENT/RECOVERY													

Other equipment requirements: Be Safe and Communicate

Name: (print)  
Jamie Hayer  
Kellie Jones  
Catherine Green  
ERREM SANTOVAL

Signature  
Jamie Hayer  
Catherine Green  
Errem Santoval

Company  
oep  
BCD  
Matedor  
TOTAL SAFETY

(Attach additional sheets as required)

401 W. Broadway.  
 Farmington, NM 87401

Telephone: 505-325-7535

FAX: 505-326-0045



Collected 3 foot delineation samples in three locations around the tank battery