



April 26, 2017

#5B24624-BG24

Crystal Weaver  
Environmental Specialist  
NMOCD District II  
1301 W Grand Ave  
Artesia, NM 88210

SUBJECT: AMENDED FINAL CLOSURE REPORT FOR INCIDENT 2RP-4008, Paul 25 24S 28E RB #221H, UNIT D SECTION 25-T24S-R28E NMPM, API# 30-015-43018, EDDY COUNTY, NEW MEXICO

Dear Ms. Weaver:

On behalf of Matador Resources Company (Matador), Souder Miller & Associates (SMA) is pleased to submit an amended Final Closure Report summarizing the remediation of the release site located by the Paul 25 24S 28E RB #221H in Eddy County, New Mexico. The purpose of this Final Closure is to obtain closure from the New Mexico Oil Conservation Division (NMOCD) for the remediation of the release that occurred on private property on November 22, 2016.

SMA responded at the request of Matador Resources Company, to assess, delineate and remediate the soils from the release of production fluids associated with Paul 25 24S 28E RB #221H well location. The release was initially reported to NMOCD by Matador Resources Company, on November 22, 2016 and was a result of an equipment failure. The table below summarizes information regarding the release. Results of the assessment, delineation, and remedial activities following in the Closure Report.

Table 1: Release information and Site Ranking					
Name	Paul 25 24S 28E RB #221H				
Location	Incident Number	API Number	Section, Township, Range		
	2RP-4008	30-015-43018	NW/NE (Unit D)	Section 25	T24S, R28E NMPM
Estimated Date of Release	November 22, 2016				
Date Reported to NMOCD	November 22, 2016				
Reported by	Catherine Green				
Land Owner	Private				
Reported To	NM Oil Conservation Division (NMOCD)				
Source of Release	Equipment Failure				
Released Material	Produced Water				
Released Volume	~560 bbls Produced Water				
Recovered Volume	240 bbls Produced Water				

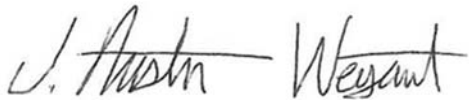


Net Release	320 bbls Produced Water
Nearest Waterway	1.4 miles north of the location
Depth to Groundwater	Estimated to be 49 feet
Nearest Domestic Water Source	Greater than 1,000 feet
NMOCD Ranking	20
SMA Response Dates	Initial: 11/23/16
Subcontractors	Diamondback
Disposal Facility	Lea Land
Estimated Yd3 Contaminated Soil Excavated and Disposed	5,800

A copy of the C-141 Initial is attached in Appendix B. For questions or comments pertaining to the release or the attached work plan, please feel free to contact either of us.

Submitted by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist

Reviewed by:



Cynthia Gray, CHMM  
Senior Scientist

# SOIL REMEDIATION FINAL CLOSURE REPORT FOR INCIDENT 2RP-4008

MATADOR RESOURCES COMPANY

PAUL 25 24S 28E RB #221H  
UL D, SECTION 25, T24S R28E, NMPM  
API #30-015-43018  
EDDY 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

April 26, 2016  
SMA Reference  
5B24624 BG24

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Table 3: Summary of Laboratory Analyses

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## **1.0 Introduction**

On behalf of Matador Resources Company, Souder, Miller & Associates (SMA) has prepared this report that describes the assessment, initial delineation and remediation actions for a release associated with the Paul 25 24S 28E RB #221H location API# 30-015-43018. The site is in Section 25, Township 24S, Range 28E NMPM, Eddy County, New Mexico, on private property. Figure 1 illustrates the vicinity and location of the site.

## **2.0 Site Ranking, Land Status, and Jurisdiction**

The release site is located approximately 1.3 miles east of the Willow Lake, with an elevation of approximately 2,934 feet above sea level. After evaluation of the site using aerial photography and topographic maps, depth to groundwater is estimated to be 49 feet below ground surface (bgs).

SMA searched the New Mexico State Engineer's Office online water well database for water wells in the vicinity of the release. Two wells are located within a one mile radius of the site. Figure 1 depicts the site vicinity and Figure 2 shows the site itself. The physical location of this release is on private property and is within the jurisdiction of NMOCD.

Based on the NMOCD Guidelines Ranking Criteria, this release location has been assigned an NMOCD ranking of 20 which requires a soil remediation standard of 10 parts per million (ppm) benzene, 50 ppm combined benzene, toluene, ethyl-benzene, and total xylenes (BTEX), and 100 ppm total petroleum hydrocarbons (TPH). Table 1 illustrates the site ranking rationale.

## **3.0 Assessment and Initial Results**

On November 23, 2016, SMA field personnel were on site to assess the release area using a Photo Ionization Detector (PID), and a mobile chlorides titration kit EPA method 9045D meter. The potentially affected area was found to be approximately 580 feet long and 50 feet wide. The site delineation samples were taken to depths of four feet bgs initially. On November 30, 2016, further delineation occurred, proceeding to 12' bgs at the request of NMOCD. Further details about the project can be found in NMOCD Online Records under "Soil Remediation Work Plan For Incident 2RP-4008 All samples were collected and processed according to NMOCD soil sampling procedures. The samples were sent under chain-of-custody protocols to Hall Environmental Analysis Laboratory for analysis for Total Chlorides using EPA Method 300.0.

## **4.0 Soil Remediation Summary**

SMA begin the excavation of affected soils on December 21, 2016, with approval from area utilities owners via 811 and NMOCD. SMA continuously guide the excavation activities by collecting composite soil samples for field screening with a mobile electro conductivity meter. The background chloride sample used for guidance on the excavation was the D2-6 ,3000 ppm chloride discussed with Crystal Weaver. Excavation occurred at several different depths depending on field screening results. Depths of excavation are shown in Table 2. In the pipeline area the excavation did not occur four feet on each side of the pipeline due to pipeline safety. Excavation did occurred to two feet bgs over the pipeline. Hay then was added over pipeline to ass a capillary break in the soil. Affected soils was removed from these areas before closure samples were collected at the final depth of excavation and from the sidewalls. Approximately 5,800 cubic yards of contaminated was removed and replaced with clean backfill material to return

the surface to previous contours. The contaminated soil was be transported for proper disposal at Lea Land, near Carlsbad, NM, an NMOCD permitted disposal facility.

## **5.0 Conclusions and Recommendations**

NMOCD Guidelines for Remediation of Leaks, Spills, and Releases have established the following action levels for contaminants of concern with a site ranking of 20: 10 ppm (mg/kg) Benzene, 50 ppm total BTEX, and 100 ppm TPH.

Laboratory analytical results for the closure sample collected was below NMOCD closure standards for benzene, BTEX, and TPH. Chlorides ranged from below detection limits (30 mg/Kg) to 3,500 mg/Kg. No further remedial activities are recommended. Soil sample locations are illustrated in Figure 2. A summary of laboratory analytical results is included in Table 3. Laboratory reports are included in Appendix A.

## **6.0 Closure and Limitations**

The scope of our services consisted of the performance of release assessment, initial delineation sampling and field screening, verification of release stabilization, regulatory liaison, and preparation of this Closure Document. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

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:

Reviewed by:

SOUDER, MILLER & ASSOCIATES



Austin Weyant  
Project Scientist



Cynthia Gray, CHMM  
Senior Scientist

### **Figures:**

Figure 1: Vicinity Map

Figure 2: Detailed Site and Sample Location Map

### **Tables:**

Table 1: Release Information and Site Ranking

Table 2: Summary of Chloride Field Screening Results

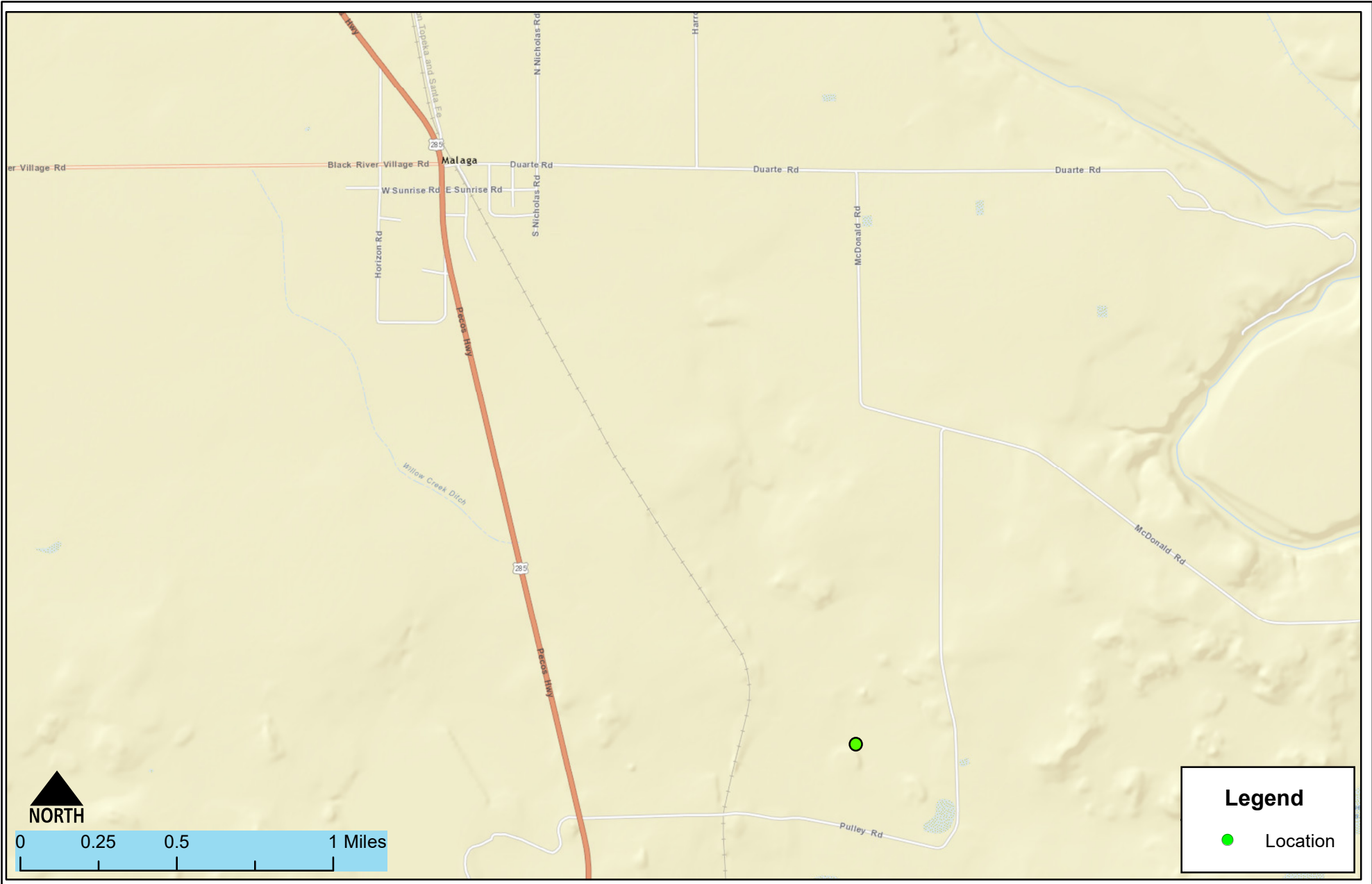
Table 3: Summary of Laboratory Analyses

### **Appendices:**

Appendix A: Laboratory Analytical Reports

Appendix B: Form C141 Final

# FIGURE 1 VICINITY MAP



Vicinity Map  
Paul 221H- Matador  
Sec. 25 T24S, R28E, Eddy County, NM

Figure 1



# FIGURE 2

## DETAILED SITE AND SAMPLE LOCATION MAP



Detailed Site and Sample Map  
Paul 25 24S 28E RB #221H- Matador Resources  
S.25, T24S, R28E, New Mexico

Figure 2A

Date Saved:  
4/26/2017

Revisions		Descr:
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

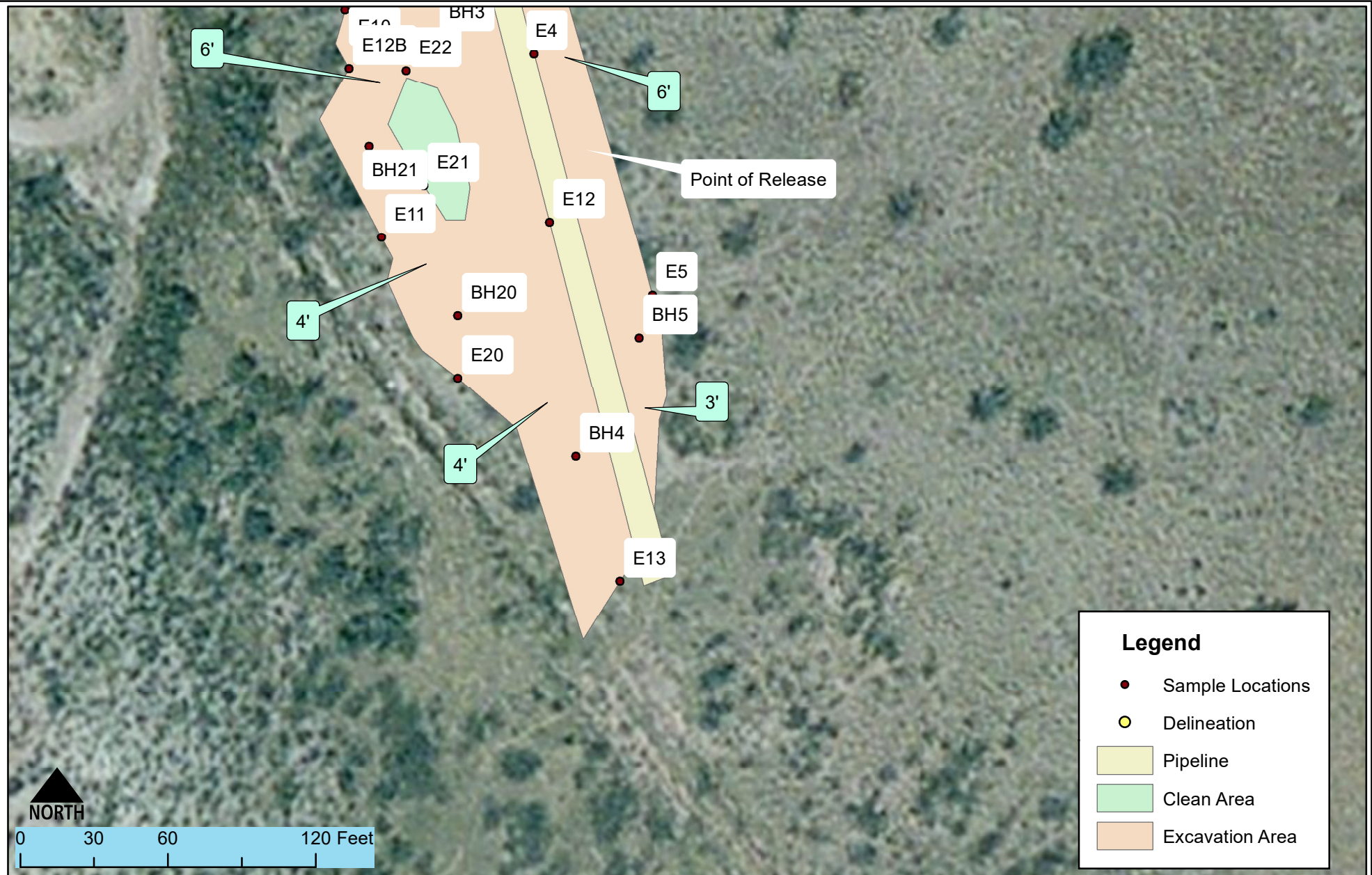
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Drawn Lucas Middleton  
Checked \_\_\_\_\_  
Approved \_\_\_\_\_



201 South Halaguena Street  
Carlsbad, New Mexico 88221  
(575) 689-7040  
www.soudermiller.com  
Serving the Southwest & Rocky Mountains





Detailed Site and Sample Map  
 Paul 25 24S 28E RB #221H- Matador Resources  
 S.25, T24S, R28E, New Mexico

Figure 2B

Date Saved:  
4/23/2017

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

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



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# TABLE 1

## RELEASE INFORMATION AND SITE RANKING

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SMA Response Dates	Initial: 11/23/16				
Subcontractors	Diamondback				
Disposal Facility	Lea Land				
Estimated Yd3 Contaminated Soil Excavated and Disposed	5,800				

## TABLE 2

# SUMMARY OF CHLORIDE FIELD SCREENING RESULTS

Table 2: Summary of Chloride Field Screening Results

FIELD SCREENING RESULTS SUMMARY					
Date	Time	Field Screening Reference	Sample Depth (Feet BGS)	Chlorides Results	Lab Sample Collected Y/N
12/30/2016	8:00	E1	2'	1,763	Y
12/30/2016	8:00	E2	2'	4,183	N
12/30/2016	8:00	E3	6'	1,226	Y
12/30/2016	8:00	E4	2'	1,786	Y
12/30/2016	8:00	E5	3'	2,208	Y
12/30/2016	8:00	E6	2'	986	N
12/30/2016	8:00	E7	3'	2,790	N
12/30/2016	8:00	E8	5'	3,384	N
12/30/2016	8:00	E9	4'	1,545	Y
12/30/2016	8:00	E10	6'	609	N
12/30/2016	8:00	E11	2'	735	Y
12/30/2016	8:00	E12B	6'	2,676	Y
1/4/2017	9:00	BH1	4'	2,493	Y
1/4/2017	9:00	BH2	5'	1,443	Y
1/4/2017	9:00	BH3	6'	2,596	Y
1/4/2017	9:00	BH4	4'	1,877	Y
1/4/2017	9:00	BH5	4'	2,585	Y
1/4/2017	9:00	BH6	6'	2,379	Y
1/4/2017	9:00	BH7	4'	1,808	Y
1/4/2017	9:00	BH8	2'	5,576	N
1/9/2017	2:00	E20	3'	667	N
1/9/2017	2:00	E21	4'	1,865	N
1/9/2017	2:00	E22	6'	1,740	N
1/9/2017	2:00	E23	3'	1,797	N
1/13/2017	3:00	BH20	3'	1066	N
1/13/2017	3:00	BH21	6.5'	1237	N
1/13/2016	9:00	E13	3'	1,078	N
1/13/2016	9:00	E14	2'	667	N
1/13/2016	9:00	E15	3'	2,105	N
1/13/2016	9:00	BH9	3'	1,694	N
1/13/2016	9:00	E16	3'	1,797	N
1/13/2016	9:00	BH21	6.5'	1,238	N



# TABLE 3

## SUMMARY OF LABORATORY ANALYSES



**Table 3: Summary of Laboratory Analyses**

Analytical Report Reference	Sample Number on Figure 2	Sample Date	Depth	BTEX ppm	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	Cl- mg/Kg
1612375-001	D1	11/30/2016	6'	N/A	N/A	N/A	N/A	1200
1612375-002	D1	11/30/2016	10'	>0.099	>0.025	>4.9	12	2500
1612375-003	D2	11/30/2016	6'	N/A	N/A	N/A	N/A	3000
1612375-004	D2	11/30/2016	10'	N/A	N/A	N/A	N/A	1400
1701304-001	E1	12/30/2016	2'	N/A	N/A	N/A	N/A	330
1701304-002	E3	12/30/2016	6'	N/A	N/A	N/A	N/A	640
1701304-003	E4	12/30/2016	2'	N/A	N/A	N/A	N/A	1200
1701304-004	E5	12/30/2016	3'	N/A	N/A	N/A	N/A	2900
1701304-007	E12	12/30/2016	4'	N/A	N/A	N/A	N/A	4900
1701764-001	E12B	1/13/2017	6'	N/A	N/A	N/A	N/A	600
1701306-005	BH1	1/4/2017	4.5'	N/A	N/A	N/A	N/A	2800
1701306-006	BH2	1/4/2017	5.5'	N/A	N/A	N/A	N/A	820
1701306-001	BH4	1/4/2017	4'	N/A	N/A	N/A	N/A	1000
1701306-002	BH5	1/4/2017	4'	N/A	N/A	N/A	N/A	2800
1701306-003	BH6	1/4/2017	6'	N/A	N/A	N/A	N/A	1700
1701306-004	BH7	1/4/2017	4'	N/A	N/A	N/A	N/A	2400
1701C34-002	E9	1/25/2017	4'	N/A	N/A	N/A	N/A	34
1701C34-003	E11	1/25/2017	2'	N/A	N/A	N/A	N/A	1,100

1701C34-001	BH3	1/25/2017	7'	N/A	N/A	N/A	N/A	210
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# APPENDIX A

## LABORATORY ANALYTICAL REPORTS



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

January 18, 2017

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

RE: Paul #221H

OrderNo.: 1701304

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/10/2017 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order: 1701304

Date Reported: 1/18/2017

**CLIENT:** Souder, Miller & Associates  
**Project:** Paul #221H

**Lab Order:** 1701304

**Lab ID:** 1701304-001

**Collection Date:** 12/30/2016 9:00:00 AM

**Client Sample ID:** E1

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	330	30		mg/Kg	20	1/11/2017 11:32:42 AM	29648

**Lab ID:** 1701304-002

**Collection Date:** 12/30/2016 9:00:00 AM

**Client Sample ID:** E3

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	640	30		mg/Kg	20	1/11/2017 12:09:55 PM	29648

**Lab ID:** 1701304-003

**Collection Date:** 12/30/2016 9:00:00 AM

**Client Sample ID:** E4

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	1200	75		mg/Kg	50	1/16/2017 4:10:29 PM	29648

**Lab ID:** 1701304-004

**Collection Date:** 12/30/2016 9:00:00 AM

**Client Sample ID:** E5

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	2900	150		mg/Kg	100	1/16/2017 4:22:54 PM	29648

**Lab ID:** 1701304-005

**Collection Date:** 12/30/2016 9:00:00 AM

**Client Sample ID:** E9

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	4000	150		mg/Kg	100	1/16/2017 4:35:18 PM	29648

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

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

**Analytical Report**Lab Order: **1701304**Date Reported: **1/18/2017****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller & Associates  
**Project:** Paul #221H**Lab Order:** 1701304**Lab ID:** 1701304-006**Collection Date:** 12/30/2016 9:00:00 AM**Client Sample ID:** E11**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	3900	150		mg/Kg	100	1/16/2017 4:47:43 PM	29648

**Lab ID:** 1701304-007**Collection Date:** 12/30/2016 9:00:00 AM**Client Sample ID:** E12**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	4900	150		mg/Kg	100	1/16/2017 5:00:07 PM	29648

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#: 1701304

18-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul #221H

Sample ID	MB-29648		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29648		RunNo:	39971				
Prep Date:	1/11/2017		Analysis Date:	1/11/2017		SeqNo:	1252629		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29648		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29648		RunNo: 39971					
Prep Date:	1/11/2017		Analysis Date: 1/11/2017		SeqNo: 1252630		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	90	110			

### Qualifiers:

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

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



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

## Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1701304

RcptNo: 1

Received by/date: RE 1/10/17

Logged By: Andy Jansson 1/10/2017 9:15:00 AM

Completed By: Andy Jansson 1/10/17

Reviewed By: [Signature] 01/10/17

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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: \_\_\_\_\_  
( $\leq 2$  or  $> 12$  unless noted)  
Adjusted? \_\_\_\_\_  
Checked by: \_\_\_\_\_

### Special Handling (if applicable)

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

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.1	Good	Yes			



## HALL ENVIRONMENTAL ANALYSIS LABORATORY

[www.hallenvironmental.com](http://www.hallenvironmental.com)

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

## Analysis Request

Project Manager: <i>Anastasia Weyer</i>					
Standard <input type="checkbox"/> Level 4 (Full Validation)					
Accreditation <input type="checkbox"/> Other _____					
NELAP <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
Sample Temperature: <i>41</i>					
Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type
<i>9/30/16</i>	<i>9am</i>	<i>Soil</i>	<i>E1</i>	<i>4oz Jar</i>	<i>-001</i>
			<i>E3</i>		<i>-002</i>
			<i>E4</i>		<i>-003</i>
			<i>E5</i>		<i>-004</i>
			<i>E9</i>		<i>-005</i>
			<i>E11</i>		<i>-006</i>
			<i>E12</i>		<i>-007</i>
HEAL No. <i>701304</i>					
BTEx + MTBE + TMB's (8021)					
BTEx + MTBE + TPH (Gas only)					
TPH 8015B (GRO / DRO / MRO)					
TPH (Method 418.1)					
EDB (Method 504.1)					
PAH's (8310 or 8270 SIMS)					
RCRA 8 Metals					
Anions ( <i>F</i> , Cl <sup>-</sup> , NO <sub>3</sub> <sup>-</sup> , NO <sub>2</sub> <sup>-</sup> , PO <sub>4</sub> <sup>3-</sup> , SO <sub>4</sub> <sup>2-</sup> )					
8081 Pesticides / 8082 PCB's					
8260B (VOA)					
8270 (Semi-VOA)					
Air Bubbles (Y or N)					

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



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)

January 18, 2017

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

RE: Paul #221H

OrderNo.: 1701306

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 7 sample(s) on 1/10/2017 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order: 1701306

Date Reported: 1/18/2017

**CLIENT:** Souder, Miller & Associates  
**Project:** Paul #221H

**Lab Order:** 1701306

**Lab ID:** 1701306-001

**Collection Date:** 1/4/2017 10:00:00 AM

**Client Sample ID:** BH4-4

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	1000	75		mg/Kg	50	1/16/2017 5:12:31 PM	29648

**Lab ID:** 1701306-002

**Collection Date:** 1/4/2017 10:00:00 AM

**Client Sample ID:** BH5-4

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	2800	150		mg/Kg	100	1/16/2017 5:49:45 PM	29648

**Lab ID:** 1701306-003

**Collection Date:** 1/4/2017 10:00:00 AM

**Client Sample ID:** BH6-6

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	1700	150		mg/Kg	100	1/16/2017 6:02:10 PM	29661

**Lab ID:** 1701306-004

**Collection Date:** 1/4/2017 10:00:00 AM

**Client Sample ID:** BH7-4

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	2400	150		mg/Kg	100	1/16/2017 6:14:34 PM	29661

**Lab ID:** 1701306-005

**Collection Date:** 1/6/2017 10:00:00 AM

**Client Sample ID:** BH1-4.5

**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b> Analyst: LGT							
Chloride	2800	150		mg/Kg	100	1/16/2017 6:26:59 PM	29661

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

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

**Analytical Report**Lab Order: **1701306**Date Reported: **1/18/2017****Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller & Associates  
**Project:** Paul #221H**Lab Order:** 1701306**Lab ID:** 1701306-006**Collection Date:** 1/6/2017 10:00:00 AM**Client Sample ID:** BH2-5.5**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	820	30		mg/Kg	20	1/12/2017 2:23:21 PM	29661

**Lab ID:** 1701306-007**Collection Date:** 1/6/2017 10:00:00 AM**Client Sample ID:** BH3-7**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	3400	150		mg/Kg	100	1/16/2017 6:39:24 PM	29661

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#: 1701306

18-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul #221H

Sample ID	MB-29648		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 29648		RunNo: 39971					
Prep Date:	1/11/2017		Analysis Date: 1/11/2017		SeqNo: 1252629		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-29648		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29648		RunNo: 39971					
Prep Date:	1/11/2017		Analysis Date: 1/11/2017		SeqNo: 1252630		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	96.5	90	110			

Sample ID	MB-29661		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29661		RunNo:	39991				
Prep Date:	1/12/2017		Analysis Date:	1/12/2017		SeqNo:	1253152		Units: mg/Kg		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29661			SampType:	LCS		TestCode:	EPA Method 300.0: Anions			
Client ID:	LCSS			Batch ID:	29661		RunNo:	39991			
Prep Date:	1/12/2017			Analysis Date:	1/12/2017		SeqNo:	1253153		Units:	mg/Kg
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	15	1.5	15.00	0	97.3	90	110				

### 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



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4901 Hawkins NE  
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TEL: 505-345-3975 FAX: 505-345-4107  
Website: www.hallenvironmental.com

## Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1701306

RcptNo: 1

Received by/date: RE 1/10/17

Logged By: Andy Jansson 1/10/2017 9:15:00 AM

Completed By: Andy Jansson 1/10/17

Reviewed By: [Signature] 01/10/17 @ 1055

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

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

### Special Handling (if applicable)

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

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.1	Good	Yes			





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)

February 07, 2017

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

RE: Paul #221

OrderNo.: 1701C34

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 3 sample(s) on 1/31/2017 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109



**Analytical Report**

Lab Order: 1701C34

Date Reported: 2/7/2017

**Hall Environmental Analysis Laboratory, Inc.****CLIENT:** Souder, Miller & Associates  
**Project:** Paul #221**Lab Order:** 1701C34**Lab ID:** 1701C34-001**Collection Date:** 1/25/2017 10:00:00 AM**Client Sample ID:** BH 3-7**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	210	30		mg/Kg	20	2/2/2017 4:21:21 PM	30028

**Lab ID:** 1701C34-002**Collection Date:** 1/25/2017 10:05:00 AM**Client Sample ID:** E9**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: LGT
Chloride	34	30		mg/Kg	20	2/2/2017 4:58:35 PM	30028

**Lab ID:** 1701C34-003**Collection Date:** 1/25/2017 10:10:00 AM**Client Sample ID:** E11**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch ID
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	1100	75		mg/Kg	50	2/4/2017 3:37:30 AM	30028

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#: 1701C34

07-Feb-17

Client: Souder, Miller &amp; Associates

Project: Paul #221

Sample ID	MB-30028		SampType: MBLK		TestCode: EPA Method 300.0: Anions					
Client ID:	PBS		Batch ID: 30028		RunNo: 40495					
Prep Date:	2/2/2017		Analysis Date: 2/2/2017		SeqNo: 1269175		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	LCS-30028		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 30028		RunNo: 40495					
Prep Date:	2/2/2017		Analysis Date: 2/2/2017		SeqNo: 1269176		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.6	90	110			

### Qualifiers:

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

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



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

## Sample Log-In Check List

Client Name: SMA-CARLSBAD

Work Order Number: 1701C34

RcptNo: 1

Received by/date: AS 1/31/17  
Logged By: Andy Jansson 1/31/2017 9:55:00 AM  
Completed By: Andy Jansson 1/31/17  
Reviewed By: AOJ 01/31/17

### Chain of Custody

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

### Log In

4. Was an attempt made to cool the samples? Yes ☒ No ☐ NA ☐  
5. Were all samples received at a temperature of  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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 $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.2	Good	Yes			

# Chain-of-Custody Record

Client: SAT

Mailing Address: Carlband

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation

☐ NELAP ☐ Other

☐ EDD (Type)

Date Time Matrix Sample Request ID

1-25-17 10:00 Sat BH3-7  
10:05 57  
10:10 11

Turn-Around Time:

☒ Standard ☐ Rush

Project Name:

Paul #221

Project #:

Project Manager:

Austin Weyant

Sampler:

CW

On Ice: ☒ Yes ☐ No

Sample Temperature: 3.1 - 0.9 C/F

Container Type and #

Preservative Type

HEAL No.

1701634

-001

-002

-003

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

## HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

### Analysis Request

BTEX + MTBE + TMB's (8021)  
BTEX + MTBE + TPH (Gas only)  
TPH 8015B (GRO / DRO / MRO)  
TPH (Method 418.1)  
EDB (Method 504.1)  
PAH's (8310 or 8270 SIMS)  
RCRA 8 Metals  
Anions (F, Cl, NO<sub>3</sub>, NO<sub>2</sub>, PO<sub>4</sub>, SO<sub>4</sub>)  
8081 Pesticides / 8082 PCB's  
8260B (VOA)  
8270 (Semi-VOA)  
Air Bubbles (Y or N)

Remarks:

Received by: aw Date: 1/31/17 Time: 055

Relinquished by: aw Date: 1/30/17 Time: 12:0

Received by: aw Date: 1/31/17 Time: 055

Relinquished by: aw Date: 1/30/17 Time: 12:0



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)

January 27, 2017

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

RE: Paul

OrderNo.: 1701764

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 9 sample(s) on 1/18/2017 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

## Analytical Report

Lab Order **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** E12

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-001

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	600	30		mg/Kg	20	1/24/2017 1:16:03 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** E13

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-002

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LGT</b>	
Chloride	820	30		mg/Kg	20	1/24/2017 1:53:18 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** E14

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-003

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	ND	30		mg/Kg	20	1/24/2017 2:05:43 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** E15

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-004

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1300	75		mg/Kg	50	1/25/2017 1:20:09 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH9

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-005

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LGT</b>	
Chloride	1200	30		mg/Kg	20	1/24/2017 2:30:32 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH21

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-006

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>						Analyst: <b>LGT</b>	
Chloride	740	30		mg/Kg	20	1/24/2017 2:42:57 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** E16

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-007

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1200	75		mg/Kg	50	1/25/2017 1:32:33 PM	29858

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 **1701764**

Date Reported: **1/27/2017**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** E17

**Project:** Paul

**Collection Date:** 1/13/2017 9:30:00 AM

**Lab ID:** 1701764-008

**Matrix:** SOIL

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	2200	75		mg/Kg	50	1/25/2017 1:44:58 PM	29858

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 1701764

Date Reported: 1/27/2017

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** Paul W1

**Project:** Paul

**Collection Date:** 1/13/2017 10:50:00 AM

**Lab ID:** 1701764-009

**Matrix:** AQUEOUS

**Received Date:** 1/18/2017 9:30:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>LGT</b>
Chloride	30000	2500	*	mg/L	5E	1/23/2017 8:31:21 PM	R40232
<b>EPA METHOD 8015M/D: DIESEL RANGE</b>							Analyst: <b>TOM</b>
Diesel Range Organics (DRO)	ND	1.0		mg/L	1	1/19/2017 5:46:54 PM	29785
Motor Oil Range Organics (MRO)	ND	5.0		mg/L	1	1/19/2017 5:46:54 PM	29785
Surr: DNOP	110	77.1-144		%Rec	1	1/19/2017 5:46:54 PM	29785
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>RAA</b>
Gasoline Range Organics (GRO)	ND	0.10		mg/L	2	1/18/2017 7:59:53 PM	GW4010
Surr: BFB	75.6	66.4-120		%Rec	2	1/18/2017 7:59:53 PM	GW4010
<b>EPA METHOD 8260: VOLATILES SHORT LIST</b>							Analyst: <b>BCN</b>
Benzene	ND	1.0		µg/L	1	1/20/2017 1:39:00 PM	A40185
Toluene	1.2	1.0		µg/L	1	1/20/2017 1:39:00 PM	A40185
Ethylbenzene	ND	1.0		µg/L	1	1/20/2017 1:39:00 PM	A40185
Methyl tert-butyl ether (MTBE)	ND	1.0		µg/L	1	1/20/2017 1:39:00 PM	A40185
1,2,4-Trimethylbenzene	ND	1.0		µg/L	1	1/20/2017 1:39:00 PM	A40185
1,3,5-Trimethylbenzene	ND	1.0		µg/L	1	1/20/2017 1:39:00 PM	A40185
Xylenes, Total	1.7	1.5		µg/L	1	1/20/2017 1:39:00 PM	A40185
Surr: 1,2-Dichloroethane-d4	92.4	70-130		%Rec	1	1/20/2017 1:39:00 PM	A40185
Surr: 4-Bromofluorobenzene	99.7	70-130		%Rec	1	1/20/2017 1:39:00 PM	A40185
Surr: Dibromofluoromethane	95.6	70-130		%Rec	1	1/20/2017 1:39:00 PM	A40185
Surr: Toluene-d8	102	70-130		%Rec	1	1/20/2017 1:39:00 PM	A40185

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#: 1701764

27-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul

Sample ID	MB-29858		SampType:	MBLK		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29858		RunNo:	40254				
Prep Date:	1/24/2017		Analysis Date:	1/24/2017		SeqNo:	1262181		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29858		SampType: LCS		TestCode: EPA Method 300.0: Anions					
Client ID:	LCSS		Batch ID: 29858		RunNo: 40254					
Prep Date:	1/24/2017		Analysis Date: 1/24/2017		SeqNo: 1262182		Units: mg/Kg			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.6	90	110			

Sample ID	MB-29858		SampType:	mblk		TestCode:	EPA Method 300.0: Anions				
Client ID:	PBS		Batch ID:	29858		RunNo:	40294				
Prep Date:	1/24/2017		Analysis Date:	1/25/2017		SeqNo:	1263074		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	ND	1.5									

Sample ID	LCS-29858		SampType:	lcs		TestCode:	EPA Method 300.0: Anions				
Client ID:	LCSS		Batch ID:	29858		RunNo:	40294				
Prep Date:	1/24/2017		Analysis Date:	1/25/2017		SeqNo:	1263075		Units:	mg/Kg	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual	
Chloride	14	1.5	15.00	0	92.9	90	110				

### 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#: 1701764

27-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul

Sample ID	MB	SampType:	MBLK	TestCode:	EPA Method 300.0: Anions					
Client ID:	PBW	Batch ID:	R40232	RunNo:	40232					
Prep Date:		Analysis Date:	1/23/2017	SeqNo:	1261453	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	0.50								

Sample ID	LCS	SampType:	LCS	TestCode:	EPA Method 300.0: Anions					
Client ID:	LCSW	Batch ID:	R40232	RunNo:	40232					
Prep Date:		Analysis Date:	1/23/2017	SeqNo:	1261454	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	4.7	0.50	5.000	0	94.3	90	110			

### 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#: 1701764

27-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul

Sample ID	<b>LCS-29785</b>		SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range</b>					
Client ID:	<b>LCSW</b>		Batch ID: <b>29785</b>		RunNo: <b>40123</b>					
Prep Date:	<b>1/19/2017</b>		Analysis Date: <b>1/19/2017</b>		SeqNo: <b>1258597</b>		Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	5.9	1.0	5.000	0	117	63.2	155			
Surr: DNOP	0.59		0.5000		119	77.1	144			

Sample ID	<b>MB-29785</b>		SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range</b>					
Client ID:	<b>PBW</b>		Batch ID: <b>29785</b>		RunNo: <b>40123</b>					
Prep Date:	<b>1/19/2017</b>		Analysis Date: <b>1/19/2017</b>		SeqNo: <b>1258598</b>		Units: <b>mg/L</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	1.0								
Motor Oil Range Organics (MRO)	ND	5.0								
Surr: DNOP	1.1		1.000		113	77.1	144			

### 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#: 1701764

27-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul

Sample ID	2.5UG GRO LCS	SampType:	LCS	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	LCSW	Batch ID:	GW40105	RunNo:	40105					
Prep Date:		Analysis Date:	1/18/2017	SeqNo:	1257185	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	0.53	0.050	0.5000	0	106	79.1	123			
Surr: BFB	19		20.00		93.6	66.4	120			

Sample ID	RB	SampType:	MBLK	TestCode:	EPA Method 8015D: Gasoline Range					
Client ID:	PBW	Batch ID:	GW40105	RunNo:	40105					
Prep Date:		Analysis Date:	1/18/2017	SeqNo:	1257186	Units:	mg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	0.050								
Surr: BFB	17		20.00		82.8	66.4	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  
W Sample container temperature is out of limit as specified

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1701764

27-Jan-17

Client: Souder, Miller &amp; Associates

Project: Paul

Sample ID	100ng lcs	SampType:	LCS	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	LCSW	Batch ID:	A40185	RunNo:	40185					
Prep Date:		Analysis Date:	1/20/2017	SeqNo:	1259830	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	18	1.0	20.00	0	92.4	70	130			
Toluene	20	1.0	20.00	0	97.6	70	130			
Surr: 1,2-Dichloroethane-d4	9.1		10.00		91.2	70	130			
Surr: 4-Bromofluorobenzene	10		10.00		99.6	70	130			
Surr: Dibromofluoromethane	9.5		10.00		94.9	70	130			
Surr: Toluene-d8	10		10.00		101	70	130			

Sample ID	rb	SampType:	MBLK	TestCode:	EPA Method 8260: Volatiles Short List					
Client ID:	PBW	Batch ID:	A40185	RunNo:	40185					
Prep Date:		Analysis Date:	1/20/2017	SeqNo:	1259831	Units:	µg/L			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	1.0								
Toluene	ND	1.0								
Ethylbenzene	ND	1.0								
Methyl tert-butyl ether (MTBE)	ND	1.0								
1,2,4-Trimethylbenzene	ND	1.0								
1,3,5-Trimethylbenzene	ND	1.0								
Xylenes, Total	ND	1.5								
Surr: 1,2-Dichloroethane-d4	9.0		10.00		89.7	70	130			
Surr: 4-Bromofluorobenzene	9.8		10.00		97.8	70	130			
Surr: Dibromofluoromethane	9.5		10.00		95.3	70	130			
Surr: Toluene-d8	9.9		10.00		99.2	70	130			

### Qualifiers:

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

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



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: 1701764

RcptNo: 1

Received by/date: AG 01/18/17

Logged By: Ashley Gallegos 1/18/2017 9:30:00 AM

Completed By: Ashley Gallegos 1/18/2017 12:38:11 PM

Reviewed By: AG 01/18/17

### Chain of Custody

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

### Log In

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

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

### Special Handling (if applicable)

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

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

17. Additional remarks:

### 18. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Yes			



# APPENDIX B

## FORM C141 FINAL

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
811 S. First St., Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources

Oil Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-141  
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in  
accordance with 19.15.29 NMAC.

## Release Notification and Corrective Action

### OPERATOR

☐ Initial Report    x ☒ Final Report

Name of Company Matador Production Company	Contact Catherine Green	
Address 500 N Main St Ste 1 Roswell NM 88201	Telephone No. 575-627-2453	
Facility Name Paul 25 24S 28E RB #221H	Facility Type Oil	
Surface Owner Private	Mineral Owner Fee	API No. 30-015-43018

### LOCATION OF RELEASE

Unit Letter D	Section 25	Township 24S	Range 28E	Feet from the 359	North/South Line N	Feet from the 217	East/West Line W	County Eddy
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Latitude 32.19484171      Longitude -104.0487226

### NATURE OF RELEASE

Type of Release Produced Water	Volume of Release ~560 bbls	Volume Recovered 240 bbls
Source of Release Line Split	Date and Hour of Occurrence Nov. 22, 2016 11am	Date and Hour of Discovery Nov. 22, 2016 10:30am
Was Immediate Notice Given? Required      x <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not	If YES, To Whom? Telephoned Mike Bratcher and Randy Bayliss. Left voicemails.	
By Whom? Catherine Green	Date and Hour Nov. 22, 2016 3pm	
Was a Watercourse Reached? <input type="checkbox"/> Yes    x <input type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		
Describe Cause of Problem and Remedial Action Taken.* Lease Operator observed 0 pressure on water line. Investigated by walking the line. Discovered severed pipe. Shut off well. Called for vacuum trucks. Line will be replaced.		
Describe Area Affected and Cleanup Action Taken.* See picture attached. Soil samples will be collected. Contaminated soil will be remediated/removed/replaced. Line will be fixed/replaced. Jan. 25, 2017 – 5,800 cubic yards of impacted material removed to Lea Land. Backfill material and contouring completed. Souder, Miller and Associates sampled and delineated.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		
Signature: Catherine Green		OIL CONSERVATION DIVISION  Approved by Environmental Specialist:
Printed Name: Catherine Green		
Title: Regulatory Analyst	Approval Date:	Expiration Date:
E-mail Address: cgreen@matadorresources.com	Conditions of Approval:	Attached <input type="checkbox"/>