



October 16, 2019

#5E27950-BG11

 NMOCD District 1  
 1625 N. French Drive  
 Hobbs, New Mexico 88240

 SUBJECT: Remediation Closure Report for the State AA #001 SWD Release (1RP-5257), Lea County,  
 New Mexico

To Whom it May Concern

On behalf of Marathon Oil Permian LLC (Marathon), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of produced water at the State AA #001 salt water disposal (SWD) site. The site is in Unit I, Section 35, Township 21S, Range 34E, Lea County, New Mexico, on New Mexico State Land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

<b>Table 1: Release Information and Closure Criteria</b>			
Name	State AA #001	Company	Marathon Oil Permian LLC
API Number	30-025-02605	Location	32.43342, -103.433816
Incident Number	2RP-5257		
Estimated Date of Release	October 18, 2018	Date Reported to NMOCD	November 2, 2018
Land Owner	State	Reported to	NMOCD, NMSLO
Source of Release	Hole on bottom of produced water tank		
Released Volume	232 bbl	Released Material	Produced Water
Recovered Volume	0 bbl	Net Release	232 bbls
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	October 22, 2018, March 7, April 25, August 21-September 16 2019		

## **1.0 Background**

On October 18, 2018, a release was discovered at the State AA #001 site due to a leaking produced water tank. Initial response activities were conducted by Marathon, and included draining the remaining liquids in the tank and isolating the tank. No free liquids were observed to recover. The contaminated soils were left in place in the tank battery to be removed during site remediation.

Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The C-141 form is included in Appendix A.

## **2.0 Site Information and Closure Criteria**

The State AA #001 is located approximately 45 miles east of Carlsbad, New Mexico on State land at an elevation of approximately 3,630 feet above mean sea level (amsl).

Based upon a drill log file for water well CP-00934 from the New Mexico Office of the State Engineer (NMOSE) online water well database ([https://gis.ose.state.nm.us/gisapps/ose\\_pod\\_locations/](https://gis.ose.state.nm.us/gisapps/ose_pod_locations/)), depth to groundwater in the area is estimated to be as shallow as 42 feet below grade surface (bgs). The water well is located approximately 1.0 miles southeast of the site location at 3,608 feet amsl.

The site is located within a depression along the path of an unnamed arroyo, according to the San Simon Ranch Quad 7.5-min USGS topographic map. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does lie within a sensitive area (unnamed arroyo) as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for groundwater depth of less than 50 feet bgs. Unless a deferral is approved by NMOCD per 19.15.29.12.B.(2), the site will be restored to meet the standards of Table I of 19.15.29.12 NMAC. Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

## **3.0 Release Characterization Activities and Findings**

### **3.1 Initial Site Assessment, October 22, 2018**

On October 22, 2018, SMA personnel arrived on site in response to the release associated with State AA #001. SMA performed initial site delineation activities by collecting soil samples around the release source area and throughout the visibly stained area within the tank battery. A total of seven sample locations (L1-L7) and seven perimeter/sidewall samples (SW1-SW7) were investigated using a hand-auger, to depths up to 2-feet bgs. Background field readings indicated chloride concentrations of 118 ppm.

### **3.2 Electromagnetic Survey, January 9, 2019**

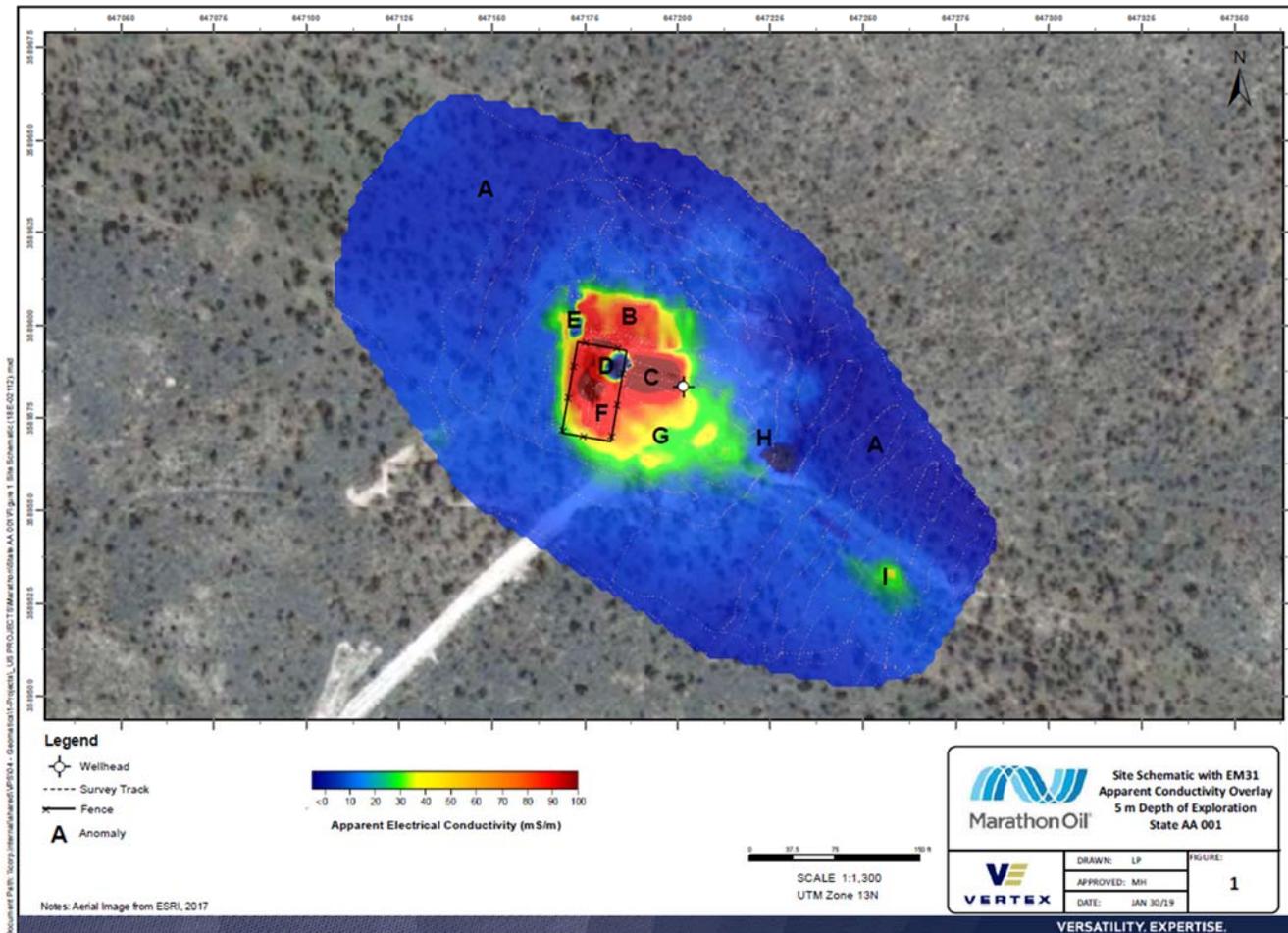
On January 9, 2019, Vertex Resource Services Inc. (Vertex) conducted an electromagnetic (EM) survey of the entire wellsite and extending off the wellsite. The purpose of the EM survey was to map variations in ground conductivity that may identify the location of and extent of a produced water release, which are typically high in chlorides and exhibit high conductivity readings. The survey was performed using a Geonics EM31 Terrain Conductivity Meter at 10-yard spaced transects across the site.

Results of the survey indicated elevated conductivity levels, relative to background, on the well pad, particularly in the areas of the tank battery, north of the tank battery, and northeast of the tank battery, as shown in Image 1, below. The highest conductivity readings (>100 – 200 milli-Siemen/meter (mS/M)) were reported inside the tank battery where the release occurred, and along the pipe that runs from the

pump to the injection wellhead. The specific depth of the elevated conductivity could not be determined using the EM survey method; however, the effective measurement depth of the instrument is approximately 16 feet and readings are a weighted average. Note that a small hotspot occurred southeast of the tank battery (denoted as "I" in Image 1); this hotspot was a result of two partially buried metal stakes and not due to contamination.

A copy of the Vertex EM survey report is included in Appendix B of the approved work plan.

Image 1. Vertex EM Survey Results



### 3.3 Confirmation Soil Borings, March 7, 2019

To determine the vertical extent of contamination, SMA oversaw drilling of soil borings on March 7, 2019. Soil borings were drilled using a trailer mounted LST1G drill rig operated by C&M. The borings were drilled using a hollow stem auger (HSA) and sampled using the split-spoon method. Field-screening results indicated soil chlorides were below the closure level at 4-, 10-, and 15-foot depths. Laboratory results at 10 feet indicated chloride concentration of 710 mg/kg. Samples collected for laboratory analysis were analyzed by Hall Environmental Analytical Laboratory in Albuquerque, NM, for total chloride using EPA Method 300.0, and MRO, DRO, and GRO by EPA Method 8015D. Field and analytical results for soil borings SB1 through SB3 are shown in Table 5, locations are shown in Figure 4, and laboratory results are included in Appendix E of the approved work plan.

### **3.4 Confirmation Soil Borings/Temporary “Wells”, April 25, 2019**

SMA obtained NMOSE-approved permits to drill “temporary wells” to fully delineate the vertical extent of chloride contamination, which had a potential to extend into the shallow groundwater. Drilling was performed on April 25, 2019, using a CME 55 track-mounted drill rig operated by HRL Solutions, Inc. (HRL). Drilling resumed at soil boring SB1, starting at 30 feet and extending to 40 feet bgs. Samples were collected and field-screened at 30, 35, and 40 feet bgs, and laboratory analyzed at 30 and 35 feet bgs. Results indicated chloride concentrations were below the closure criteria of 600 mg/kg at all depths. Additionally, groundwater was not encountered during drilling operations. The boring was set as a temporary well for one week. Upon returning a week later, it was observed that no groundwater had entered the well. The well was removed, plugged, and abandoned per NMOSE specifications.

Field and analytical results for soil borings SB3 and SB5 and locations are shown in Figure 4 of the approved work plan. (Note that there is no SB4.) The NMOSE-approved well permits, WR-07, WD-08, and WD-11, are included in Appendix C of the approved work plan. Laboratory reports are included in Appendix E of the approved work plan.

As summarized in Table 3 of the approved work plan, results indicate that an area approximately 140 feet by 150 feet by 30 feet deep had been impacted.

In the workplan dated May 29, 2019, SMA proposed excavating and removing contaminated soil in the impacted area to approximately 10 feet bgs within the tank battery and 4 feet bgs on the well pad with a bentonite liner installed at the base of the excavation. All surface material to a depth of 4 feet will be less than 600 ppm for chlorides. On July 3, 2019, NMOCD approved the workplan with stipulations including further delineation of chloride at sample locations SB2 and SB3.

## **4.0 Soil Remediation Summary**

In accordance with the approved workplan, SMA provided guidance and oversight of remediation activities from August 2 to September 16, 2019. After approval from area utilities via 811, SMA guided the excavation activities by collecting soil samples for field screening. Samples were screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp.

The tank battery area was excavated 10 feet bgs. Confirmation samples were comprised of five-point composites of the base (TBH-1 and TBH-2) and walls (TB-SW1 through TB-SW6). A total of eight (8) confirmation samples were collected within the tank battery and a bentonite liner was installed at the base of the excavation. Tank battery samples were analyzed for total chloride using EPA Method 300.0 and MRO, DRO, and GRO by EPA Method 8015D.

The area outside the tank battery and on the well pad was excavated to four (4) feet bgs, with the sidewalls extended until chloride levels were below 600 ppm. Confirmation samples were comprised of five-point composites of the base (BH1-BH6) and walls (SW1-SW6). A total of 12 confirmation samples were collected on the well pad and a bentonite liner was installed at the base of the excavation. Well pad base samples were analyzed for total chloride using EPA Method 300.0 and MRO, DRO, and GRO by EPA Method 8015D. Well pad sidewall samples were analyzed for total chloride using EPA Method 300.0 only.

As required by NMOCD, previous samples SB2 and SB3 were delineated for chlorides by collecting samples at 21 and 22 feet, respectively, using a trackhoe. The total excavation removed approximately 3,130 cubic yards of contaminated material.

Figure 3 shows the extent of the excavation and sample locations. All confirmation laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

In addition to meeting the Closure Criteria, the top four (4) feet of impacted areas on and off the well pad meet the Reclamation requirement of 19.15.29.13(D)(1). Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at R360 near Hobbs, NM, an NMOCD permitted disposal facility.

## **5.0 Scope and Limitations**

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this closure report. 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 Ashley Maxwell or Shawna Chubbuck at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES



Ashley Maxwell  
Project Manager

Reviewed by:



Shawna Chubbuck  
Senior Scientist

### **ATTACHMENTS:**

#### **Figures:**

- Figure 1: Vicinity and Well Head Protection Map
- Figure 2: Surface Water Radius Map
- Figure 3: Site and Sample Location Map

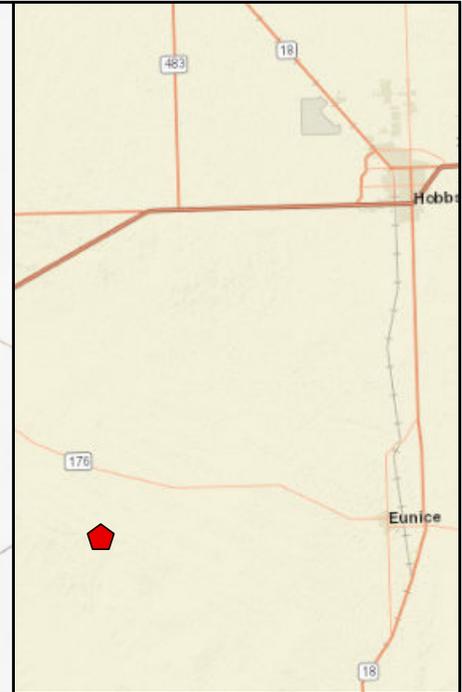
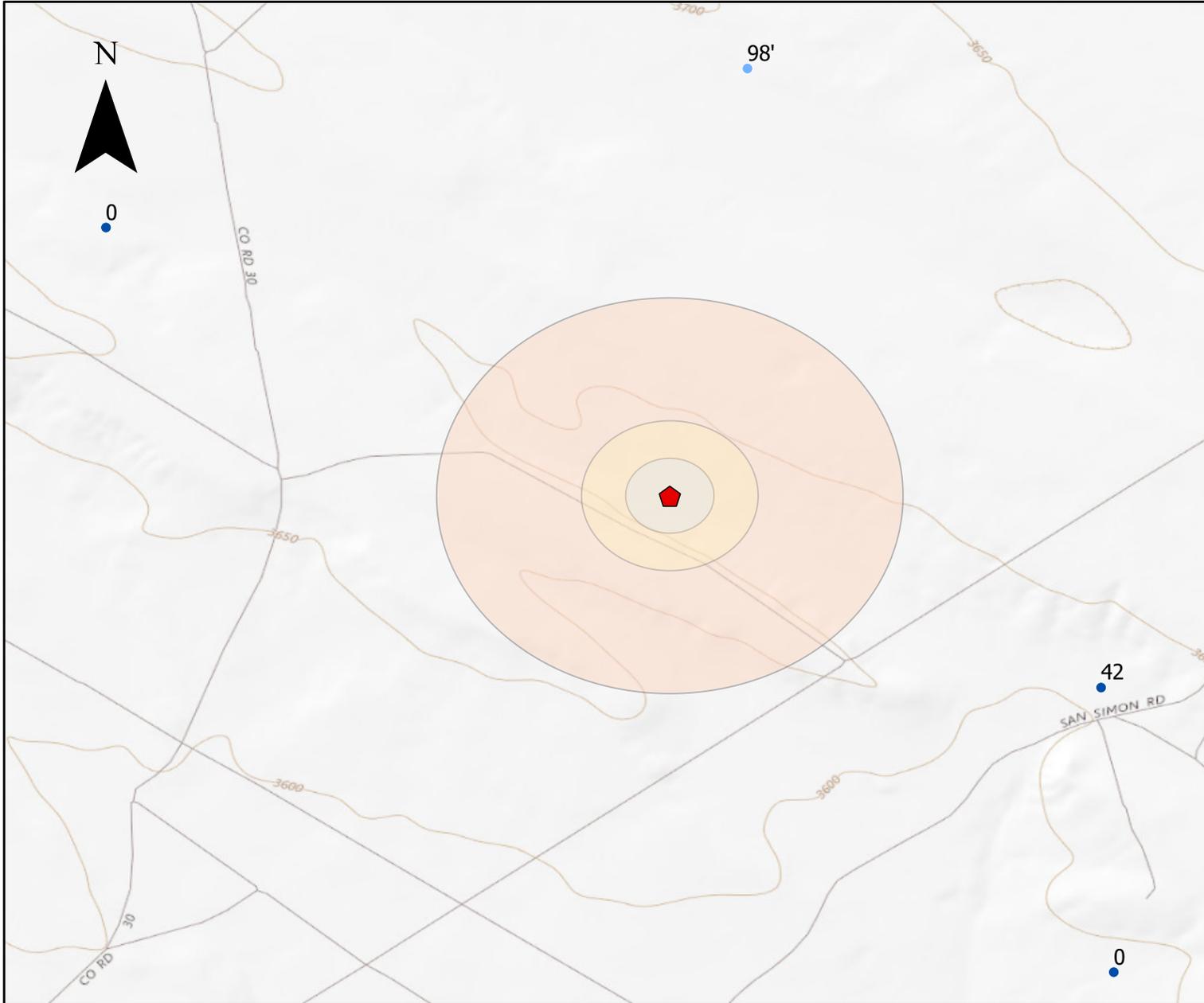
#### **Tables:**

- Table 2: NMOCD Closure Criteria Justification
- Table 3: Summary of Sample Results

#### **Appendices:**

- Appendix A: Form C141
- Appendix B: NMOSE Wells Report

# FIGURES



-  Point of Release
-  Lea County USGS
-  OSE Wells

**Buffer Distance**

-  .5 Mile
-  1000 Feet
-  500 Feet

0.62

Miles

*Regional Vicinity & Wellhead Protection Map  
State AA #1- Marathon  
Sec 35 T21S R34E, NM*

*Figure 1*

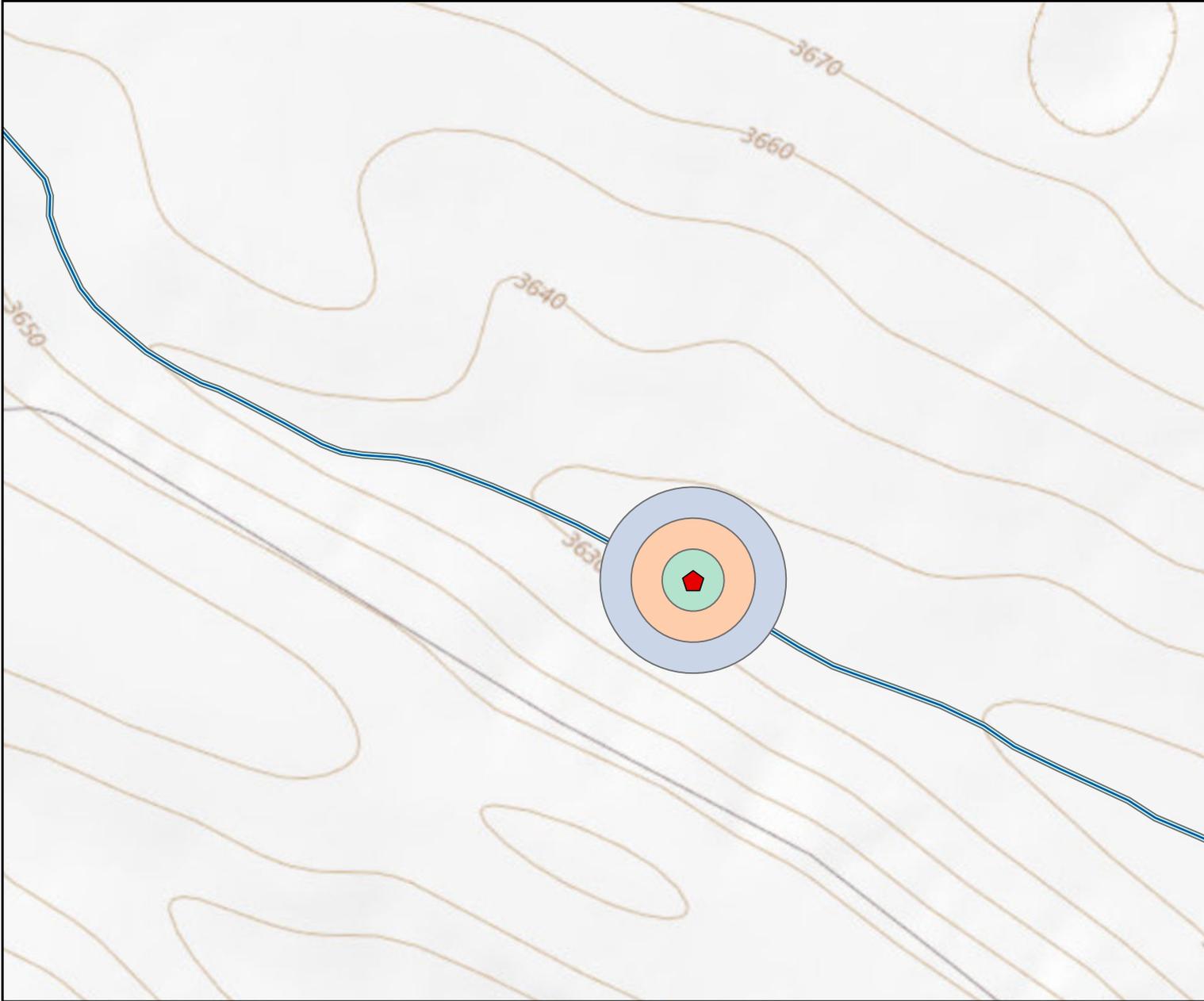
Revisions		
By: _____	Date: _____	Descr: _____
By: _____	Date: _____	Descr: _____

Date Saved: 2/4/2019  
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Drawn	Heather Patterson
Date	2/4/2019
Checked	_____
Approved	_____



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



### Legend

-  Point of Release
  -  Springs Seeps
  -  Streams Canals
  -  Rivers
  -  NM Wetlands
  -  Lakes Playas
  -  FEMA Flood Zones 2011
- Buffer Distance**
-  100 Feet
  -  200 Feet
  -  300 Feet



Surface Water Protection Map  
 State AA #1- Marathon  
 Sec 35 T21S R34E, NM

Figure 2

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By: _____	Date: _____	Descr: _____

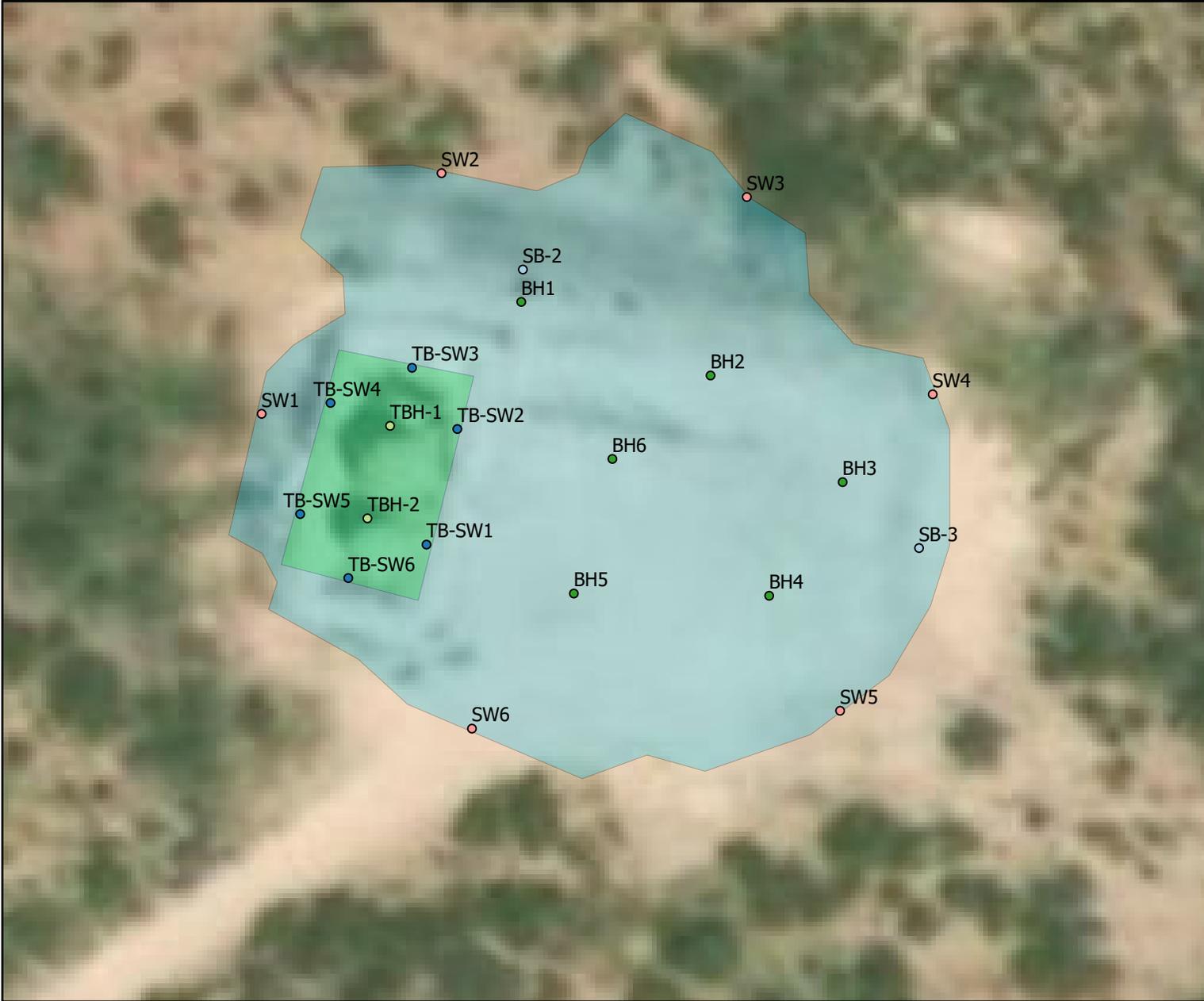
Date Saved: 2/4/2019

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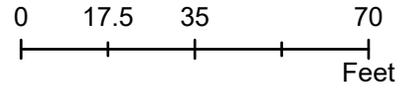
Drawn	<u>Heather Patterson</u>
Date	<u>2/4/2019</u>
Checked	_____
Approved	_____



201 South Halaguena Street  
 Carlsbad, New Mexico 88221  
 (575) 689-7040  
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- Legend**
- Bore Hole Samples
  - Tank Battery-Bottom Hole
  - Tank Battery- Side Wall
  - Well Pad- Bottom Hole
  - Well Pad- Side Wall
  - 4' Excavation
  - 10' Excavation



Site and Sample Location Map  
 State AA #001 SWD - Marathon Oil LLC  
 Sec35 T21S R34E, Lea County, New Mexico

Figure 3

P:\5-Marathon MSA, 2019 (5E27950)\GIS\ARC\GIS\MARATHON\_MIT.aprx

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

Date Saved: 10/16/2019

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Drawn	<u>Henryetta Price</u>
Date	<u>10/16/2019</u>
Checked	_____
Approved	_____



201 South Halaguena Street  
 Carlsbad, New Mexico 88221  
 (575) 689-7040  
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# TABLES

Table 2:  
NMOCD Closure Criteria Justification

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	~42'	NMOSE online water well database, CP-00934, drill log file date 9/14/2005
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	none	NMOSE online water well database, active well CP-00934, located 1.0 mi to SE
Horizontal Distance to Nearest Significant Watercourse (ft)	0'	Google Earth Pro and San Simon Ranch Quad 7.5-min USGS Topo Map, well along a depression, intermittent flow line

Closure Criteria (19.15.29.12.B(4) and Table 1 NMAC)						
Depth to Groundwater		Closure Criteria (units in mg/kg)				
		Chloride *numerical limit or background, whichever is greater	TPH	GRO + DRO	BTEX	Benzene
< 50' BGS	yes	600	100		50	10
51' to 100'		10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	yes or no	if yes, then				
<300' from continuously flowing watercourse or other significant watercourse?	yes (intermittent watercourse)	600	100		50	10
<200' from lakebed, sinkhole or playa lake?	no					
Water Well or Water Source						
<500 feet from spring or a private, domestic fresh water well used by less than 5 households for domestic or stock watering purposes?	no					
<1000' from fresh water well or spring?	no					
Human and Other Areas						
<300' from an occupied permanent residence, school, hospital, institution or church?	no					
within incorporated municipal boundaries or within a defined municipal fresh water well field?	no					
<100' from wetland?	no					
within area overlying a subsurface mine	no					
within an unstable area?	no					
within a 100-year floodplain?	no					

Table 3:  
Summary of Sample Results

Marathon Oil Permian LLC  
State AA #1 SWD (2RP-5257)  
API: 30-025-02605

Sample ID	Sample Date	Depth (feet bgs)	Proposed Action	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
<b>NMOCD Closure Criteria &lt;50 ft</b>							<b>100</b>	<b>600</b>
SW1	9/3/2019	0-4	in-situ	-	-	-	-	260
SW2	9/3/2019	0-4	in-situ	-	-	-	-	100
SW3	9/3/2019	0-4	excavate	-	-	-	-	760
	9/13/2019	0-4	in-situ	-	-	-	-	230
SW4	9/3/2019	0-4	in-situ	-	-	-	-	570
SW5	9/3/2019	0-4	in-situ	-	-	-	-	420
SW6	9/16/2019	0-4	in-situ	-	-	-	-	210
SB2	9/3/2019	21	in-situ	-	-	-	-	410
SB3	9/3/2019	22	in-situ	-	-	-	-	260
BH1	9/3/2019	4	in-situ	<4.9	<10	<50	<64.9	110
BH2	9/3/2019	4	in-situ	<4.9	<9.4	<47	<61.3	290
BH3	9/3/2019	4	in-situ	<4.8	<8.1	<40	<52.9	180
BH4	9/3/2019	4	in-situ	<4.9	<9.6	<48	<62.5	140
BH5	9/13/2019	4	in-situ	<4.9	<8.7	<43	<56.6	810
BH6	9/3/2019	4	in-situ	<4.8	19	<47	<70.8	370
TBH-1	9/3/2019	10	in-situ	<4.9	<9.6	<48	<62.5	1000
TBH-2	9/3/2019	10	in-situ	<4.9	<9.4	<47	<61.3	1500
TB-SW1	9/3/2019	0-10	in-situ	<5.0	<9.7	<48	<62.7	2200
TB-SW2	9/3/2019	0-10	in-situ	<4.9	<9.0	<45	<58.9	2,800
TB-SW3	9/3/2019	0-10	in-situ	<4.8	<9.5	<48	<62.3	890
TB-SW4	9/3/2019	0-10	in-situ	<5.0	<9.2	<46	<60.2	410
TB-SW5	9/3/2019	0-10	in-situ	<5.0	<9.6	<48	<62.6	3300
TB-SW6	9/13/2019	0-10	in-situ	<4.8	37	<49	<90.8	5,000

= Not Analyzed



**APPENDIX A**  
**FORM C141**

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 Department

Form C-141  
Revised August 24, 2018  
Submit to appropriate OCD District office

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

Incident ID	NOY1830941911
District RP	1RP-5257
Facility ID	
Application ID	pOY1830942336

## Release Notification

### Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD) NOY1830941911
Contact mailing address	

### Location of Release Source

Latitude \_\_\_\_\_ Longitude \_\_\_\_\_  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Site Type
Date Release Discovered	API# (if applicable)

Unit Letter	Section	Township	Range	County

State minerals

Surface Owner:  State  Federal  Tribal  Private (Name: \_\_\_\_\_)

### Nature and Volume of Release

Material(s) Released (Select all that apply and attach calculations or specific justification for the volumes provided below)

<input type="checkbox"/> Crude Oil	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Produced Water	Volume Released (bbls)	Volume Recovered (bbls)
	Is the concentration of total dissolved solids (TDS) in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input type="checkbox"/> No
<input type="checkbox"/> Condensate	Volume Released (bbls)	Volume Recovered (bbls)
<input type="checkbox"/> Natural Gas	Volume Released (Mcf)	Volume Recovered (Mcf)
<input type="checkbox"/> Other (describe)	Volume/Weight Released (provide units)	Volume/Weight Recovered (provide units)

Cause of Release

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release?
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)?	

### Initial Response

*The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury*

<input type="checkbox"/> The source of the release has been stopped. <input type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input type="checkbox"/> All free liquids and recoverable materials have been removed and managed appropriately.
If all the actions described above have <u>not</u> been undertaken, explain why:
Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.
Printed Name: _____ Title: _____ Signature: <i>Callie Kerrigan</i> _____ Date: _____ email: _____ Telephone: _____
<b>OCD Only</b> <span style="border: 1px solid black; padding: 2px; display: inline-block;"> <b>RECEIVED</b>                      By Olivia Yu at 11:48 am, Nov 05, 2018                 </span> Received by: _____ Date: _____

Incident ID	NOY1830941911
District RP	1RP-5257
Facility ID	
Application ID	pOY1830942336

## Site Assessment/Characterization

*This information must be provided to the appropriate district office no later than 90 days after the release discovery date.*

What is the shallowest depth to groundwater beneath the area affected by the release?	~42 (ft bgs)
Did this release impact groundwater or surface water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within 300 feet of a wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying a subsurface mine?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release overlying an unstable area such as karst geology?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Are the lateral extents of the release within a 100-year floodplain?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Did the release impact areas <b>not</b> on an exploration, development, production, or storage site?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

Attach a comprehensive report (electronic submittals in .pdf format are preferred) demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined. Refer to 19.15.29.11 NMAC for specifics.

**Characterization Report Checklist:** *Each of the following items must be included in the report.*

- Scaled site map showing impacted area, surface features, subsurface features, delineation points, and monitoring wells.
- Field data
- Data table of soil contaminant concentration data
- Depth to water determination
- Determination of water sources and significant watercourses within ½-mile of the lateral extents of the release
- Boring or excavation logs
- Photographs including date and GIS information
- Topographic/Aerial maps
- Laboratory data including chain of custody

If the site characterization report does not include completed efforts at remediation of the release, the report must include a proposed remediation plan. That plan must include the estimated volume of material to be remediated, the proposed remediation technique, proposed sampling plan and methods, anticipated timelines for beginning and completing the remediation. The closure criteria for a release are contained in Table 1 of 19.15.29.12 NMAC, however, use of the table is modified by site- and release-specific parameters.

Incident ID	NOY1830941911
District RP	1RP-5257
Facility ID	
Application ID	pOY1830942336

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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.

Printed Name: \_\_\_\_\_ Isaac Castro \_\_\_\_\_ Title: \_\_\_\_\_ Environmental Professional \_\_\_\_\_

Signature: \_\_\_\_\_ *Isaac Castro* \_\_\_\_\_ Date: \_\_\_\_\_ 10/16/19 \_\_\_\_\_

email: \_\_\_\_\_ icastro@marathonoil.com \_\_\_\_\_ Telephone: \_\_\_\_\_ 575-988-0561 \_\_\_\_\_

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Incident ID	NOY1830941911
District RP	1RP-5257
Facility ID	
Application ID	pOY1830942336

## Closure

The responsible party must attach information demonstrating they have complied with all applicable closure requirements and any conditions or directives of the OCD. This demonstration should be in the form of a comprehensive report (electronic submittals in .pdf format are preferred) including a scaled site map, sampling diagrams, relevant field notes, photographs of any excavation prior to backfilling, laboratory data including chain of custody documents of final sampling, and a narrative of the remedial activities. Refer to 19.15.29.12 NMAC.

**Closure Report Attachment Checklist:** *Each of the following items must be included in the closure report.*

- A scaled site and sampling diagram as described in 19.15.29.11 NMAC
- Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)
- Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)
- Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD 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 OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD 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. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Isaac Castro Title: Environmental Professional

Signature: *Isaac Castro* Date: 10/16/19

email: icastro@marathonoil.com Telephone: 575-988-0561

**OCD Only**

Received by: \_\_\_\_\_ Date: \_\_\_\_\_

Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_ Title: \_\_\_\_\_

**APPENDIX B**  
**NMOSE WELLS REPORT**

STATE ENGINEER OFFICE  
WELL RECORD

CP934

Section 1. GENERAL INFORMATION

(A) Owner of well Gruy Petroleum Management Co. Owner's Well No. MW-1  
 Street or Post Office Address 508 West Wall St Suite 600  
 City and State Midland, Texas 79701

Well was drilled under Permit No. CP-934 and is located in the:  
Riddle State 1  
NE 1/4 NW 1/4 NE 1/4 of Section 1 Township 22S Range 34E N.M.P.M.

b. Tract No. \_\_\_\_\_ of Map No. \_\_\_\_\_ of the \_\_\_\_\_

c. Lot No. \_\_\_\_\_ of Block No. \_\_\_\_\_ of the \_\_\_\_\_  
 Subdivision, recorded in Lea County.

d. X = \_\_\_\_\_ feet, Y = \_\_\_\_\_ feet, N.M. Coordinate System \_\_\_\_\_ Zone in Grant \_\_\_\_\_

(B) Drilling Contractor Scarborough Drilling, Inc. License No. WD1188

Address P.O. Box 305 Lamesa, Texas 79331

Drilling Began 09-01-05 Completed 09-01-05 Type tools air rotary Size of hole 8 in.

Elevation of land surface or \_\_\_\_\_ at well's \_\_\_\_\_ ft. Total depth of well 60 ft.

Completed well is  shallow  artesian. Depth to water upon completion of well 42 ft.

Section 2. PRINCIPAL WATER-BEARING STRATA

Depth in Feet		Thickness in Feet	Description of Water-Bearing Formation	Estimated Yield (gallons per minute)
From	To			

STATE ENGINEER OFFICE  
ROSMELLE, NEW MEXICO  
2005 SEP 15 AM 1:30

Section 3. RECORD OF CASING

Diameter (Inches)	Pounds per foot	Threads per in.	Depth in Feet		Length (feet)	Type of Shoe	Perforations	
			Top	Bottom			From	To
<u>4</u>	<u>sch 40</u>	<u>pvc</u>	<u>0</u>	<u>40</u>		<u>.020</u>	<u>40</u>	<u>60</u>

Section 4. RECORD OF MUDDING AND CEMENTING

Depth in Feet		Hole Diameter	Sacks of Mud	Cubic Feet of Cement	Method of Placement
From	To				
<u>0</u>	<u>36</u>	<u>4</u>	<u>cement</u>		<u>poured</u>
<u>36</u>	<u>39</u>	<u>4</u>	<u>bentonite</u>		<u>poured</u>
<u>39</u>	<u>60</u>	<u>4</u>	<u>sand</u>		<u>poured</u>

Section 5. PLUGGING RECORD

Plugging Contractor \_\_\_\_\_  
 Address \_\_\_\_\_  
 Plugging Method \_\_\_\_\_  
 Date Well Plugged \_\_\_\_\_  
 Plugging approved by: \_\_\_\_\_

No.	Depth in Feet		Cubic Feet of Cement
	Top	Bottom	
<u>1</u>			
<u>2</u>			
<u>3</u>			
<u>4</u>			

State Engineer Representative \_\_\_\_\_

Date Received 9-15-05 FOR USE OF STATE ENGINEER ONLY 339093

FDs No. CP-934 Use OWD Location No. 22S.34E.1.212





National Water Information System: Web Interface

USGS Water Resources

Data Category: Groundwater Geographic Area: United States GO

Click to hideNews Bulletins

- [Please see news on new formats](#)
- [Full News](#)

Groundwater levels for the Nation

Search Results -- 1 sites found

Agency code = usgs  
site\_no list = 322657103255201

Minimum number of levels = 1

[Save file of selected sites](#) to local disk for future upload

USGS 322657103255201 21S.34E.25.13141

Lea County, New Mexico  
Latitude 32°26'57", Longitude 103°25'52" NAD27  
Land-surface elevation 3,685 feet above NAVD88  
The depth of the well is 196 feet below land surface.  
This well is completed in the Ogallala Formation (121OGLL) local aquifer.

Output formats

<a href="#">Table of data</a>
<a href="#">Tab-separated data</a>
<a href="#">Graph of data</a>
<a href="#">Reselect period</a>

Date	Time	? Water-level date-time accuracy	Water level, feet below land surface	Water level, feet above specific vertical datum	Referenced vertical datum	? Water-level accuracy	? Status	? Method of measurement	? Measuring agency	? Source of measure
1965-10-29		D	100.94			2			U	
1968-03-28		D	100.27			2			U	
1971-02-10		D	99.61			2			U	
1976-12-15		D	98.87			2			U	
1981-03-05		D	98.80			2			U	
1986-03-20		D	99.08			2			U	

Explanation

Section	Code	Description
Water-level date-time accuracy	D	Date is accurate to the Day
Water-level accuracy	2	Water level accuracy to nearest hundredth of a foot
Status		The reported water-level measurement represents a static level
Method of measurement	U	Unknown method.
Measuring agency		Not determined
Source of measurement	U	Source is unknown.
Water-level approval status	A	Approved for publication -- Processing and review completed.

- [Questions about sites/data?](#)
- [Feedback on this web site](#)
- [Automated retrievals](#)
- [Help](#)
- [Data Tips](#)
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[U.S. Department of the Interior](#) | [U.S. Geological Survey](#)

**Title: Groundwater for USA: Water Levels**

**URL: <https://nwis.waterdata.usgs.gov/nwis/gwlevels?>**



Page Contact Information: [USGS Water Data Support Team](#)

Page Last Modified: 2019-02-04 17:04:59 EST

0.74 0.6 nadww01

APPENDIX C  
PHOTO LOG

September 13, 2019

Tank Battery with bentonite liner Facing Southeast



September 18, 2019

BH1, SW2, SW3 with bentonite liner Facing West



September 18, 2019

BH2, BH3, BH4, SW3, SW4 with bentonite liner facing Northwest



September 17, 2019

BH3, BH4, BH5, SW4, and SW5 with bentonite liner facing Northeast



September 18, 2019

BH4, BH5, BH6, SW5 & SW6 with bentonite liner facing south



APPENDIX D  
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)

September 12, 2019

Hernryetta Price  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-8801  
FAX

RE: State AA 1

OrderNo.: 1909194

Dear Hernryetta Price:

Hall Environmental Analysis Laboratory received 19 sample(s) on 9/5/2019 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 #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW1

**Project:** State AA 1

**Collection Date:** 9/3/2019 8:45:00 AM

**Lab ID:** 1909194-001

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	260	60		mg/Kg	20	9/9/2019 4:53:05 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1909194**

Date Reported: **9/12/2019**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW2

**Project:** State AA 1

**Collection Date:** 9/3/2019 10:00:00 AM

**Lab ID:** 1909194-002

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	100	60		mg/Kg	20	9/9/2019 5:30:20 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW3

**Project:** State AA 1

**Collection Date:** 9/3/2019 10:10:00 AM

**Lab ID:** 1909194-003

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	760	60		mg/Kg	20	9/9/2019 5:42:44 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW4

**Project:** State AA 1

**Collection Date:** 9/3/2019 10:20:00 AM

**Lab ID:** 1909194-004

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	570	60		mg/Kg	20	9/9/2019 5:55:09 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1909194**

Date Reported: **9/12/2019**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW5

**Project:** State AA 1

**Collection Date:** 9/3/2019 10:30:00 AM

**Lab ID:** 1909194-005

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	420	60		mg/Kg	20	9/9/2019 6:07:33 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH1

**Project:** State AA 1

**Collection Date:** 9/3/2019 3:12:00 PM

**Lab ID:** 1909194-006

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	110	60		mg/Kg	20	9/9/2019 6:19:57 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/10/2019 2:41:33 PM	47330
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/10/2019 2:41:33 PM	47330
Surr: DNOP	59.8	70-130	S	%Rec	1	9/10/2019 2:41:33 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/9/2019 2:10:06 PM	47319
Surr: BFB	94.6	77.4-118		%Rec	1	9/9/2019 2:10:06 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH2

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:30:00 PM

**Lab ID:** 1909194-007

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	290	59		mg/Kg	20	9/9/2019 6:32:21 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/10/2019 10:38:23 AM	47330
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/10/2019 10:38:23 AM	47330
Surr: DNOP	80.0	70-130		%Rec	1	9/10/2019 10:38:23 AM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/9/2019 2:32:59 PM	47319
Surr: BFB	97.9	77.4-118		%Rec	1	9/9/2019 2:32:59 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH3

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:45:00 PM

**Lab ID:** 1909194-008

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	180	59		mg/Kg	20	9/9/2019 6:44:46 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.1		mg/Kg	1	9/10/2019 11:00:25 AM	47330
Motor Oil Range Organics (MRO)	ND	40		mg/Kg	1	9/10/2019 11:00:25 AM	47330
Surr: DNOP	96.3	70-130		%Rec	1	9/10/2019 11:00:25 AM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/9/2019 3:41:33 PM	47319
Surr: BFB	97.0	77.4-118		%Rec	1	9/9/2019 3:41:33 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH4

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:35:00 PM

**Lab ID:** 1909194-009

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	140	60		mg/Kg	20	9/9/2019 7:22:00 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/10/2019 11:44:31 AM	47330
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/10/2019 11:44:31 AM	47330
Surr: DNOP	67.0	70-130	S	%Rec	1	9/10/2019 11:44:31 AM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/9/2019 4:04:28 PM	47319
Surr: BFB	99.1	77.4-118		%Rec	1	9/9/2019 4:04:28 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH6

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:40:00 PM

**Lab ID:** 1909194-010

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	370	61		mg/Kg	20	9/9/2019 7:34:25 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	19	9.4		mg/Kg	1	9/10/2019 3:03:45 PM	47330
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/10/2019 3:03:45 PM	47330
Surr: DNOP	58.3	70-130	S	%Rec	1	9/10/2019 3:03:45 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/9/2019 4:27:21 PM	47319
Surr: BFB	96.7	77.4-118		%Rec	1	9/9/2019 4:27:21 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SB2-21'

**Project:** State AA 1

**Collection Date:** 9/3/2019 1:15:00 PM

**Lab ID:** 1909194-011

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	410	60		mg/Kg	20	9/9/2019 7:46:49 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SB3-22'

**Project:** State AA 1

**Collection Date:** 9/3/2019 2:45:00 PM

**Lab ID:** 1909194-012

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	260	59		mg/Kg	20	9/9/2019 7:59:14 PM	47358

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TBH-1

**Project:** State AA 1

**Collection Date:** 9/3/2019 11:45:00 AM

**Lab ID:** 1909194-013

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1000	60		mg/Kg	20	9/9/2019 8:11:39 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/10/2019 12:06:35 PM	47330
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/10/2019 12:06:35 PM	47330
Surr: DNOP	67.7	70-130	S	%Rec	1	9/10/2019 12:06:35 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/9/2019 4:50:16 PM	47319
Surr: BFB	97.6	77.4-118		%Rec	1	9/9/2019 4:50:16 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TBH-2

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:00:00 PM

**Lab ID:** 1909194-014

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	1500	59		mg/Kg	20	9/9/2019 8:24:03 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/10/2019 12:28:40 PM	47330
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/10/2019 12:28:40 PM	47330
Surr: DNOP	68.2	70-130	S	%Rec	1	9/10/2019 12:28:40 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/9/2019 5:13:07 PM	47319
Surr: BFB	98.6	77.4-118		%Rec	1	9/9/2019 5:13:07 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TB-SW1

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:05:00 PM

**Lab ID:** 1909194-015

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	2200	150		mg/Kg	50	9/11/2019 1:07:49 AM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/10/2019 12:50:42 PM	47330
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/10/2019 12:50:42 PM	47330
Surr: DNOP	62.2	70-130	S	%Rec	1	9/10/2019 12:50:42 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/9/2019 5:35:59 PM	47319
Surr: BFB	99.9	77.4-118		%Rec	1	9/9/2019 5:35:59 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TB-SW2

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:10:00 PM

**Lab ID:** 1909194-016

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	2800	150		mg/Kg	50	9/11/2019 1:20:14 AM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/10/2019 1:12:51 PM	47330
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/10/2019 1:12:51 PM	47330
Surr: DNOP	53.1	70-130	S	%Rec	1	9/10/2019 1:12:51 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/9/2019 5:58:52 PM	47319
Surr: BFB	99.4	77.4-118		%Rec	1	9/9/2019 5:58:52 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1909194**

Date Reported: **9/12/2019**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TB-SW3

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:15:00 PM

**Lab ID:** 1909194-017

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	890	60		mg/Kg	20	9/9/2019 9:01:15 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/10/2019 1:34:59 PM	47330
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/10/2019 1:34:59 PM	47330
Surr: DNOP	55.4	70-130	S	%Rec	1	9/10/2019 1:34:59 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/9/2019 6:21:40 PM	47319
Surr: BFB	97.4	77.4-118		%Rec	1	9/9/2019 6:21:40 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TB-SW4

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:17:00 PM

**Lab ID:** 1909194-018

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	410	60		mg/Kg	20	9/9/2019 9:13:40 PM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/10/2019 1:57:08 PM	47330
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/10/2019 1:57:08 PM	47330
Surr: DNOP	46.2	70-130	S	%Rec	1	9/10/2019 1:57:08 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/9/2019 6:44:31 PM	47319
Surr: BFB	97.4	77.4-118		%Rec	1	9/9/2019 6:44:31 PM	47319

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909194

Date Reported: 9/12/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TB-SW5

**Project:** State AA 1

**Collection Date:** 9/3/2019 12:22:00 PM

**Lab ID:** 1909194-019

**Matrix:** SOIL

**Received Date:** 9/5/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>CJS</b>
Chloride	3300	150		mg/Kg	50	9/11/2019 1:32:38 AM	47358
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/10/2019 2:19:15 PM	47330
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/10/2019 2:19:15 PM	47330
Surr: DNOP	48.2	70-130	S	%Rec	1	9/10/2019 2:19:15 PM	47330
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/9/2019 7:07:17 PM	47319
Surr: BFB	95.6	77.4-118		%Rec	1	9/9/2019 7:07:17 PM	47319

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1909194

12-Sep-19

**Client:** Souder, Miller & Associates

**Project:** State AA 1

Sample ID: <b>MB-47358</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47358</b>	RunNo: <b>62754</b>								
Prep Date: <b>9/9/2019</b>	Analysis Date: <b>9/9/2019</b>	SeqNo: <b>2138680</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-47358</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47358</b>	RunNo: <b>62754</b>								
Prep Date: <b>9/9/2019</b>	Analysis Date: <b>9/9/2019</b>	SeqNo: <b>2138681</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	95.3	90	110			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1909194

12-Sep-19

Client: Souder, Miller &amp; Associates

Project: State AA 1

Sample ID: <b>LCS-47342</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47342</b>	RunNo: <b>62753</b>								
Prep Date: <b>9/9/2019</b>	Analysis Date: <b>9/9/2019</b>	SeqNo: <b>2137494</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.0		5.000		80.3	70	130			

Sample ID: <b>MB-47342</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47342</b>	RunNo: <b>62753</b>								
Prep Date: <b>9/9/2019</b>	Analysis Date: <b>9/9/2019</b>	SeqNo: <b>2137495</b>	Units: <b>%Rec</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.1		10.00		91.1	70	130			

Sample ID: <b>MB-47330</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47330</b>	RunNo: <b>62772</b>								
Prep Date: <b>9/6/2019</b>	Analysis Date: <b>9/10/2019</b>	SeqNo: <b>2138432</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	10		10.00		102	70	130			

Sample ID: <b>LCS-47330</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47330</b>	RunNo: <b>62772</b>								
Prep Date: <b>9/6/2019</b>	Analysis Date: <b>9/10/2019</b>	SeqNo: <b>2138742</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	51	10	50.00	0	102	63.9	124			
Surr: DNOP	4.8		5.000		95.8	70	130			

### Qualifiers:

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

B Analyte detected in the associated Method Blank  
E Value above quantitation range  
J Analyte detected below quantitation limits  
P Sample pH Not In Range  
RL Reporting Limit

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1909194

12-Sep-19

**Client:** Souder, Miller & Associates

**Project:** State AA 1

Sample ID: <b>MB-47319</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>PBS</b>	Batch ID: <b>47319</b>		RunNo: <b>62763</b>							
Prep Date: <b>9/6/2019</b>	Analysis Date: <b>9/9/2019</b>		SeqNo: <b>2138146</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	960		1000		96.3	77.4	118			

Sample ID: <b>LCS-47319</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015D: Gasoline Range</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>47319</b>		RunNo: <b>62763</b>							
Prep Date: <b>9/6/2019</b>	Analysis Date: <b>9/9/2019</b>		SeqNo: <b>2138147</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	93.3	80	120			
Surr: BFB	1100		1000		112	77.4	118			

**Qualifiers:**

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

**Sample Log-In Check List**

Client Name: **SMA-CARLSBAD**

Work Order Number: **1909194**

RcptNo: **1**

Received By: **Daniel Marquez**

**9/5/2019 9:00:00 AM**

*[Signature]*

Completed By: **Leah Baca**

**9/5/2019 10:23:03 AM**

*[Signature]*

Reviewed By: *LB*

*9/5/19*

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

**Log In**

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

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: DAD 9/5/19

**Special Handling (if applicable)**

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

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

16. Additional remarks:

**17. Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.9	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)

September 20, 2019

Hernryetta Price  
Souder, Miller & Associates  
201 S Halagueno  
Carlsbad, NM 88221  
TEL: (575) 689-8801  
FAX:

RE: State AA 1

OrderNo.: 1909858

Dear Hernryetta Price:

Hall Environmental Analysis Laboratory received 4 sample(s) on 9/17/2019 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 #NM0901

Sincerely,

A handwritten signature in black ink, appearing to read 'Andy Freeman', is written over a light blue horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909858

Date Reported: 9/20/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** SW3

**Project:** State AA 1

**Collection Date:** 9/13/2019 2:45:00 PM

**Lab ID:** 1909858-001

**Matrix:** SOIL

**Received Date:** 9/17/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	230	60		mg/Kg	20	9/18/2019 10:48:13 AM	47554

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order **1909858**

Date Reported: **9/20/2019**

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** BH5

**Project:** State AA 1

**Collection Date:** 9/13/2019 9:20:00 AM

**Lab ID:** 1909858-002

**Matrix:** SOIL

**Received Date:** 9/17/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	810	60		mg/Kg	20	9/18/2019 11:25:27 AM	47554
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	9/19/2019 8:57:43 AM	47548
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/19/2019 8:57:43 AM	47548
Surr: DNOP	94.3	70-130		%Rec	1	9/19/2019 8:57:43 AM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/18/2019 11:55:01 AM	47534
Surr: BFB	98.4	77.4-118		%Rec	1	9/18/2019 11:55:01 AM	47534

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909858

Date Reported: 9/20/2019

**CLIENT:** Souder, Miller & Associates

**Client Sample ID:** TB-SW6

**Project:** State AA 1

**Collection Date:** 9/13/2019 9:50:00 AM

**Lab ID:** 1909858-003

**Matrix:** SOIL

**Received Date:** 9/17/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: <b>MRA</b>
Chloride	5000	300		mg/Kg	100	9/18/2019 11:49:55 PM	47554
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: <b>BRM</b>
Diesel Range Organics (DRO)	37	9.7		mg/Kg	1	9/19/2019 9:19:45 AM	47548
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/19/2019 9:19:45 AM	47548
Surr: DNOP	108	70-130		%Rec	1	9/19/2019 9:19:45 AM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: <b>NSB</b>
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2019 1:03:33 PM	47534
Surr: BFB	96.2	77.4-118		%Rec	1	9/18/2019 1:03:33 PM	47534

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

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

# Hall Environmental Analysis Laboratory, Inc.

Analytical Report

Lab Order 1909858

Date Reported: 9/20/2019

CLIENT: Souder, Miller & Associates

Client Sample ID: SW6

Project: State AA 1

Collection Date: 9/16/2019 8:45:00 AM

Lab ID: 1909858-004

Matrix: SOIL

Received Date: 9/17/2019 9:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: MRA
Chloride	210	60		mg/Kg	20	9/18/2019 11:50:15 AM	47554

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

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1909858

20-Sep-19

**Client:** Souder, Miller & Associates

**Project:** State AA 1

Sample ID: <b>MB-47554</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47554</b>	RunNo: <b>63009</b>								
Prep Date: <b>9/18/2019</b>	Analysis Date: <b>9/18/2019</b>	SeqNo: <b>2149781</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: <b>LCS-47554</b>	SampType: <b>ics</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47554</b>	RunNo: <b>63009</b>								
Prep Date: <b>9/18/2019</b>	Analysis Date: <b>9/18/2019</b>	SeqNo: <b>2149782</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	96.7	90	110			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1909858

20-Sep-19

**Client:** Souder, Miller & Associates

**Project:** State AA 1

Sample ID: <b>LCS-47548</b>	SampType: <b>LCS</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>LCSS</b>	Batch ID: <b>47548</b>		RunNo: <b>63032</b>							
Prep Date: <b>9/18/2019</b>	Analysis Date: <b>9/19/2019</b>		SeqNo: <b>2149625</b>		Units: <b>mg/Kg</b>					
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	53	10	50.00	0	107	63.9	124			
Surr: DNOP	5.4		5.000		109	70	130			

Sample ID: <b>MB-47548</b>	SampType: <b>MBLK</b>		TestCode: <b>EPA Method 8015M/D: Diesel Range Organics</b>							
Client ID: <b>PBS</b>	Batch ID: <b>47548</b>		RunNo: <b>63032</b>							
Prep Date: <b>9/18/2019</b>	Analysis Date: <b>9/19/2019</b>		SeqNo: <b>2149626</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	12		10.00		117	70	130			

**Qualifiers:**

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

# QC SUMMARY REPORT

## Hall Environmental Analysis Laboratory, Inc.

WO#: 1909858

20-Sep-19

**Client:** Souder, Miller & Associates

**Project:** State AA 1

Sample ID: <b>MB-47534</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47534</b>	RunNo: <b>63006</b>								
Prep Date: <b>9/17/2019</b>	Analysis Date: <b>9/18/2019</b>	SeqNo: <b>2148848</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	980		1000		98.4	77.4	118			

Sample ID: <b>LCS-47534</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47534</b>	RunNo: <b>63006</b>								
Prep Date: <b>9/17/2019</b>	Analysis Date: <b>9/18/2019</b>	SeqNo: <b>2148849</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	89.1	80	120			
Surr: BFB	1100		1000		114	77.4	118			

Sample ID: <b>1909858-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>BH5</b>	Batch ID: <b>47534</b>	RunNo: <b>63006</b>								
Prep Date: <b>9/17/2019</b>	Analysis Date: <b>9/18/2019</b>	SeqNo: <b>2148856</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	4.7	23.41	0	105	69.1	142			
Surr: BFB	1200		936.3		125	77.4	118			S

Sample ID: <b>1909858-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8015D: Gasoline Range</b>								
Client ID: <b>BH5</b>	Batch ID: <b>47534</b>	RunNo: <b>63006</b>								
Prep Date: <b>9/17/2019</b>	Analysis Date: <b>9/18/2019</b>	SeqNo: <b>2148857</b>	Units: <b>mg/Kg</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.45	0	98.0	69.1	142	6.94	20	
Surr: BFB	1100		938.1		120	77.4	118	0	0	S

**Qualifiers:**

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

**Sample Log-In Check List**

Client Name: **SMA-CARLSBAD**

Work Order Number: **1909858**

RcptNo: **1**

Received By: **Desiree Dominguez**

9/17/2019 9:00:00 AM

*DD*

Completed By: **Yazmine Garduno**

9/17/2019 9:08:50 AM

*Yazmine Garduno*

Reviewed By:

*9/17/19*

**Chain of Custody**

1. Is Chain of Custody complete? Yes  No  Not Present
2. How was the sample delivered? Courier

**Log In**

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

# of preserved bottles checked for pH: \_\_\_\_\_  
 (<2 or >12 unless noted)  
 Adjusted? \_\_\_\_\_  
 Checked by: *DAD 9/17/19*

**Special Handling (if applicable)**

15. 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:	_____		

16. Additional remarks:

**Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good				

# Chain-of-Custody Record

Client: Sm A  
Carltsbad  
 Mailing Address:  
 Phone #:  
 email or Fax#:

QA/QC Package:  
 Standard  Level 4 (Full Validation)  
 Accreditation:  Az Compliance  
 NELAC  Other  
 EDD (Type)

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
9/18/19	1445	soil	SW 3	402		1909754
↓	0920	↓	BH 5	↓		-001
↓	0950	↓	TB-SW6	↓		-002
9/19/19	0845	soil	SW6	402		-003
						-004

Date: 9/16/19 1300  
 Relinquished by: Hengelta Price  
 Date: 9/16/19 1900  
 Relinquished by: [Signature]

Turn-Around Time:  
 Standard  Rush 2 day  
 Project Name:  
State AA #1  
 Project #:

Project Manager:  
Hengelta Price  
 Sampler: AAF  
 On Ice:  Yes  No  
 # of Coolers:

Container Type and #	Preservative Type	HEAL No.
402		1909754
↓		-001
↓		-002
↓		-003
402		-004

Received by: [Signature] Date: 9/16/19 Time: 1400  
 Via: Courier  
 Received by: [Signature] Date: 9/17/19 Time: 9:00  
 Via: Courier



# 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 / TMBs (8021)	
TPH8015D(GRO / DRO / MRO)	X
8081 Pesticides/8082 PCB's	
EDB (Method 504.1)	
PAHs by 8310 or 8270SIMS	
RCRA 8 Metals	X
GF, Br, NO <sub>3</sub> , NO <sub>2</sub> , PO <sub>4</sub> , SO <sub>4</sub>	X
8260 (VOA)	
8270 (Semi-VOA)	
Total Coliform (Present/Absent)	

Remarks:  
Weather

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.