

Incident ID	#NCD1926052330
District RP	
Facility ID	
Application ID	

## 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: Deb Lemon Title: Regulatory Manager  
Signature: Deb Lemon Date: 9/29/2020  
email: dlemon@mustangresourcesllc.com Telephone: 720-550-7507 ext 105

### 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: Cory Smith Date: 3/16/2021  
Printed Name: Cory Smith Title: Environmental Specialist



Souder, Miller & Associates ♦ 401 W. Broadway ♦ Farmington, NM 87401  
(505) 325-7535 ♦ (800) 519-0098 ♦ fax (505) 326-0045

September 23, 2020

SMA #5129135

Mustang Resources, LLC  
Mr. Don Johnson  
1660 Lincoln St #1450  
Denver, Colorado 80264

**SUBJECT: Closure Request for the Serendipity 3R Release (NCS1926052330),  
Farmington, New Mexico**

Dear Mr. Johnson:

Souder, Miller & Associates (SMA) has prepared this request for closure that describes the resampling of the deferred area of SC2. The site is in Unit M, Section 26, Township 26N, Range 13W, San Juan County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Per the NMOCD-approved Deferral Request dated October 25, 2019, Mustang Resources, LLC applied gypsum to the impacted area and allowed for insitu treatment to occur for approximately one year. On September 1, 2020, SMA returned to site and collected one composite soil sample (SC2-Resample) from the deferred SC2 area at six (6) inches below grade surface (bgs). Figure 2 illustrates the location of SC2-Resample.

Sample SC2-Resample was placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico for analyzation of total chloride using EPA Method 300.0.

Laboratory analytical results for the sample collected during the September 1, 2020 site visit indicate results below the NMOCD closure criteria with chloride concentrations of 460 mg/kg.

SMA has completed the requirements of the deferral and has provided data confirming that the release has been remediated. SMA is therefore requesting closure for the Serendipity 3R release (NCS1926052330).

If there are any questions regarding the site activities or results, please contact myself or Shawna Chubbuck at 505-325-7535.

Sincerely,  
**Souder, Miller & Associates**

A handwritten signature in black ink, appearing to read 'jll'.

Ashley Maxwell  
Staff Scientist

A handwritten signature in blue ink, appearing to read 'Shawna Chubbuck'.

Shawna Chubbuck  
Senior Scientist

**Serendipity 3R (NCS1926052330)**  
**Soil Sampling**  
**San Juan County, New Mexico**

**September 23, 2020**  
**SMA #51279135**

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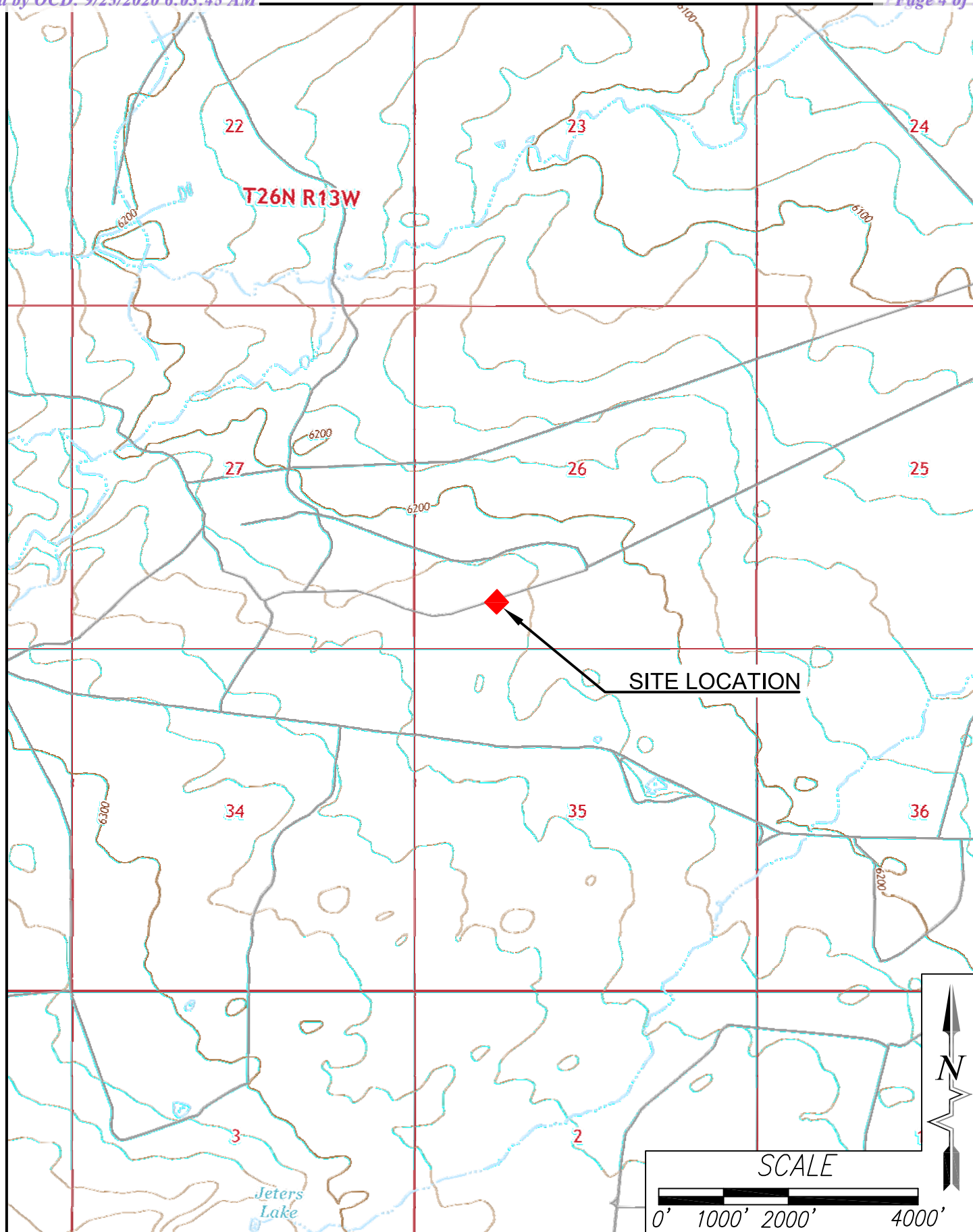
**Figures:**

Figure 1: Site Map

Figure 2: Sample Location Map

**Appendix:**

Laboratory Analytical Report



Souder, Miller & Associates

401 West Broadway Avenue

Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

www.soudermiller.com

Serving the Southwest & Rocky Mountains

MUSTANG RESOURCES

FARMINGTON, NEW MEXICO

VICINITY MAP  
SERENDIPITY 3R  
M-26-26N-13W

SAN JUAN COUNTY

Designed AM	Drawn DJB	Checked SC
----------------	--------------	---------------

Date: September 2020

Scale: Horiz: 1" = 2000'  
Vert: NA

Project No: 5127515

Figure 1





Figure 2

Project No.: 5127515

Date: September 2020

Scale: Horiz: 1" = 30'

Vert: N/A

THIS DRAWING IS INCOMPLETE AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED

Designed AM	Drawn DJB	Checked SC
----------------	--------------	---------------

**SMA**  
Engineering  
Environmental  
Surveying

**SOUDEY, MILLER & ASSOCIATES**  
401 West Broadway Avenue  
Farmington, NM 87401-5907  
Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045  
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MUSTANG RESOURCES	FARMINGTON, NEW MEXICO
SAMPLE LOCATION MAP SERENDIPITY 3R M-26-26N-13W	













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

September 15, 2020

Ashley Maxwell  
Souder, Miller and Associates  
401 W. Broadway  
Farmington, NM 87401  
TEL: (505) 325-5667  
FAX: (505) 327-1496

RE: Serendipity 3R

OrderNo.: 2009101

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 1 sample(s) on 9/2/2020 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 2009101

Date Reported: 9/15/2020

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC2-Resample

Project: Serendipity 3R

Collection Date: 9/1/2020 11:41:00 AM

Lab ID: 2009101-001

Matrix: SOIL

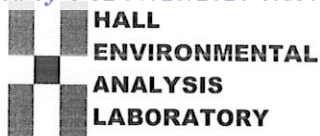
Received Date: 9/2/2020 8:05:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS							Analyst: CAS
Chloride	460	60		mg/Kg	20	9/11/2020 6:47:19 PM	55110

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		

Page 1 of 1



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

## Sample Log-In Check List

Client Name: Souder, Miller and Associ

Work Order Number: 2009101

RcptNo: 1

Received By: Cheyenne Cason 9/2/2020 8:05:00 AM

Completed By: Isaiah Ortiz 9/2/2020 9:55:47 AM

Reviewed By: SPA 9.2.20

I-0x

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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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. Received at least 1 vial with headspace  $<1/4$ " for AQ VOA? Yes ☐ No ☐ NA ☒  
10. Were any sample containers received broken? Yes ☐ No ☒  
11. Does paperwork match bottle labels?  
(Note discrepancies on chain of custody) Yes ☒ No ☐  
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?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

(<2 or >12 unless noted)

Adjusted?

Checked by: cm 9/2/20

Special Handling (if applicable)

15. 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: \_\_\_\_\_

16. Additional remarks:

17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	4.2	Good	Not Present			





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

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

Incident ID	NCS1926052330
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party Mustang Resources, LLC	OGRID 373495
Contact Name Deb Lemon	Contact Telephone 720-550-7507 ext 105
Contact email dlemon@mustangresourcesllc.com	Incident # (assigned by OCD)
Contact mailing address	NCS1926052330

### Location of Release Source

Latitude 36.35871 Longitude 108.193165  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Serendipity #3R	Site Type Gas Well
Date Release Discovered September 3, 2019	API# (if applicable) 30-045-30811

Unit Letter	Section	Township	Range	County
M	26	26N	13W	San Juan

Site Characterization Accepted  
Please submit Remediation Plan  
No Later than 3/16/2020

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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 160	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" 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

Mustang was informed on September 3rd at 10:35am that the produced water tank at this location overflowed. This was the result of an oversight with a water hauling contractor and not the result of a mechanical failure. Mustang estimates that approximately 160 BBLS of produced water was released.

Form C-141

State of New Mexico  
Oil Conservation Division

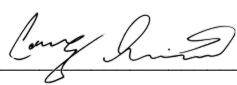
Page 2

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume greater than 25 barrels of produced water
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Initial Response was given via email to: Mr. Cory Smith, OCD district office; Mr. Jim Griswold, OCD environmental bureau; Mr. Virgil Lucero, BLM district field office engineer.	

**Initial Response**

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" 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: <u>Deborah Lemon</u>	Title: <u>Regulatory Manager</u>
Signature: <u>Deborah Lemon</u>	Date: <u>9/5/2019</u>
email: <u>dlemon@mustangresourcesllc.com</u>	Telephone: <u>720-550-7507 Ext 105</u>
<b><u>OCD Only</u></b> Received by: <u></u>	
Date: <u>9/17/19</u>	

Form C-141

Page 3

State of New Mexico  
Oil Conservation Division

Incident ID	#NCS1926052330
District RP	
Facility ID	
Application ID	

## 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?	_____ (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 type="checkbox"/> Yes <input checked="" 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.


Form C-141

Page 4

State of New Mexico  
Oil Conservation Division

Incident ID	#NCS1926052330
District RP	
Facility ID	
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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: Deb Lemon Title: Regulatory ManagerSignature: Deborah Lemon Date: 11/1/2019email: dlemon@mustangresourcesllc.com Telephone: 720-550-7507 ext 105**OCD Only**Received by: OCD  Date: 2/14/2020

Site Characterization Accepted  
Please submit Remediation Plan  
No Later than 3/16/2020

Incident ID	#NCS1926052330
District RP	
Facility ID	
Application ID	

## Remediation Plan

**Remediation Plan Checklist:** *Each of the following items must be included in the plan.*

- ☒ Detailed description of proposed remediation technique
- ☒ Scaled sitemap with GPS coordinates showing delineation points
- ☒ Estimated volume of material to be remediated
- ☒ Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- ☒ Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)

**Deferral Requests Only:** *Each of the following items must be confirmed as part of any request for deferral of remediation.*

- ☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- ☐ Extents of contamination must be fully delineated.
- ☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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: Deborah Lemon Title: Regulatory Manager  
Signature: Deb Lemon Date: 2/26/2020  
email: dlemon@mustangresourcesllc.com Telephone: 720-550-7507 ext 105

**OCD Only**

Received by: OCD Date: 2/27/2020

☐ Approved ☐ Approved with Attached Conditions of Approval ☐ Denied ☒ Deferral Approved

Signature:  Date: 5/13/2020

Deferral Approved, site must be reclaimed at P&A or when the area is no longer needed for the Exploration of Oil/Gas which ever comes first. Operator will Notify OCD when reclamation has been completed per 19.15.29.13 NMAC



Souder, Miller & Associates ♦ 401 W. Broadway ♦ Farmington, NM 87401  
(505) 325-7535 ♦ (800) 519-0098 ♦ fax (505) 326-0045

October 25, 2019

#5127515-BG2

Mustang Resources, LLC  
Mr. Don Johnson  
1660 Lincoln St #1450  
Denver, Colorado 80264

SUBJECT: Deferral Request for the Serendipity 3R Release (NCS1926052330), Farmington, New Mexico

Dear Mr. Johnson:

Souder, Miller & Associates (SMA) has prepared this Deferral Request that describes the delineation and proposed remediation for a release of liquids related to oil and gas production activities at the Serendipity 3R site. The site is in Unit M, Section 26, Township 26N, Range 13W, San Juan County, New Mexico, on Federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1, summarizes information regarding the release.

Table 1: Release Information and Closure Criteria			
Name	Serendipity 3R	Company	Mustang Resources LLC
API Number	30-045-30811	Location	36.453873 -108.193527
Incident Number	NCS1926052330		
Estimated Date of Release	September 3, 2019	Date Reported to NMOCD	September 3, 2019
Land Owner	Federal	Reported To	NMOCD, BLM
Source of Release	Produced water Tank		
Released Volume	160 bbls	Released Material	Produced Water
Recovered Volume	0 bbls	Net Release	160 bbls
NMOCD Closure Criteria	51-100 feet to groundwater		
SMA Response Dates	September 24, 2019 & October 2, 2019		

## **1.0 Background**

On September 3, 2019, a release was discovered at the Serendipity 3R site due to the produced water tank overflowing. Initial response activities were conducted by Mustang, and included source elimination and site security activities. 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 Serendipity 3R is located approximately nineteen (19) miles south of Farmington, New Mexico on Federal (BLM) land at an elevation of approximately 6,234 feet above mean sea level (amsl).

There are no known water sources within ½-mile of the location, according to 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/); accessed 10/23/2019). The nearest significant watercourse is an unnamed tributary, located approximately 730 feet to the southeast. Per Cory Smith, NMOCD Environmental Specialist, depth to groundwater for the Serendipity 3R was designated to be between 51-100 feet below grade surface (bgs) during an onsite visit conducted on September 24, 2019. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein and the onsite determination by NMOCD, the applicable NMOCD Closure Criteria for this site is for groundwater depth of between 51-100 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 1 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**

On September 24, 2019, SMA personnel arrived on site in response to the release associated with Serendipity 3R. SMA performed closure sampling activities by collecting soil samples around the release site within the berm containment. Closure sampling activities were witnessed by Cory Smith, NMOCD Environmental Specialist.

A total of five (5) sample locations (SC1-SC5) were collected for laboratory analysis for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

As summarized in Table 3, results indicate that an area approximately 14 feet by 11 feet by 6 inches deep has been impacted (sample location SC2) by chlorides above the reclamation requirement but remain below the Closure Criteria. Locations for all samples are depicted on Figure 3.

At the request of Cory Smith, NMOCD Environmental Specialist, SMA returned to site on October 2, 2019 conduct chloride delineation via soil boring and sampling activities. A single soil boring, measuring from surface to four (4) bgs, was completed in the low spot within the sample location of SC2. A total of four (4) samples were collected, one from each foot of the boring, for laboratory analysis for total chloride using EPA Method 300.0.

Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).



Serendipity 3R Remediation Plan (NCS1926052330)  
October 25, 2019

Page 3 of 4

As summarized in Table 3, results from soil boring activities indicate that the impacted area of SC2 is limited to the surface. Locations for all samples are depicted on Figure 3.

#### **4.0 Soil Remediation Work Plan**

On October 31, 2019, three bags of gypsum were applied to the impacted area at the SC2 sampling location as in situ remediation. SMA will collect one composite closure sample from the top 6 inches of the area identified as SC2 for 300.0 chlorides. The closure composite sample will be submitted to Hall Environmental Analysis Laboratory. It will take approximately 5 business days for results. This work will be completed in September 2020. 72 hour notification will be given to OCD.

In accordance with 19.15.29.12.B(2), a deferral is being requested in the area identified as SC2, As described above, the contamination has been delineated and does not cause an imminent risk to human health, the environment, or groundwater.

#### **5.0 Scope and Limitations**

The scope of our services included: assessment sampling; verifying release stabilization, regulatory liaison, and preparing this remediation plan. 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 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:  
SOUDER, MILLER & ASSOCIATES

Reviewed by:



Ashley Maxwell  
Project Scientist



Shawna Chubbuck  
Senior Scientist

Serendipity 3R Remediation Plan (NCS1926052330)  
October 25, 2019

Page 4 of 4

**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:**

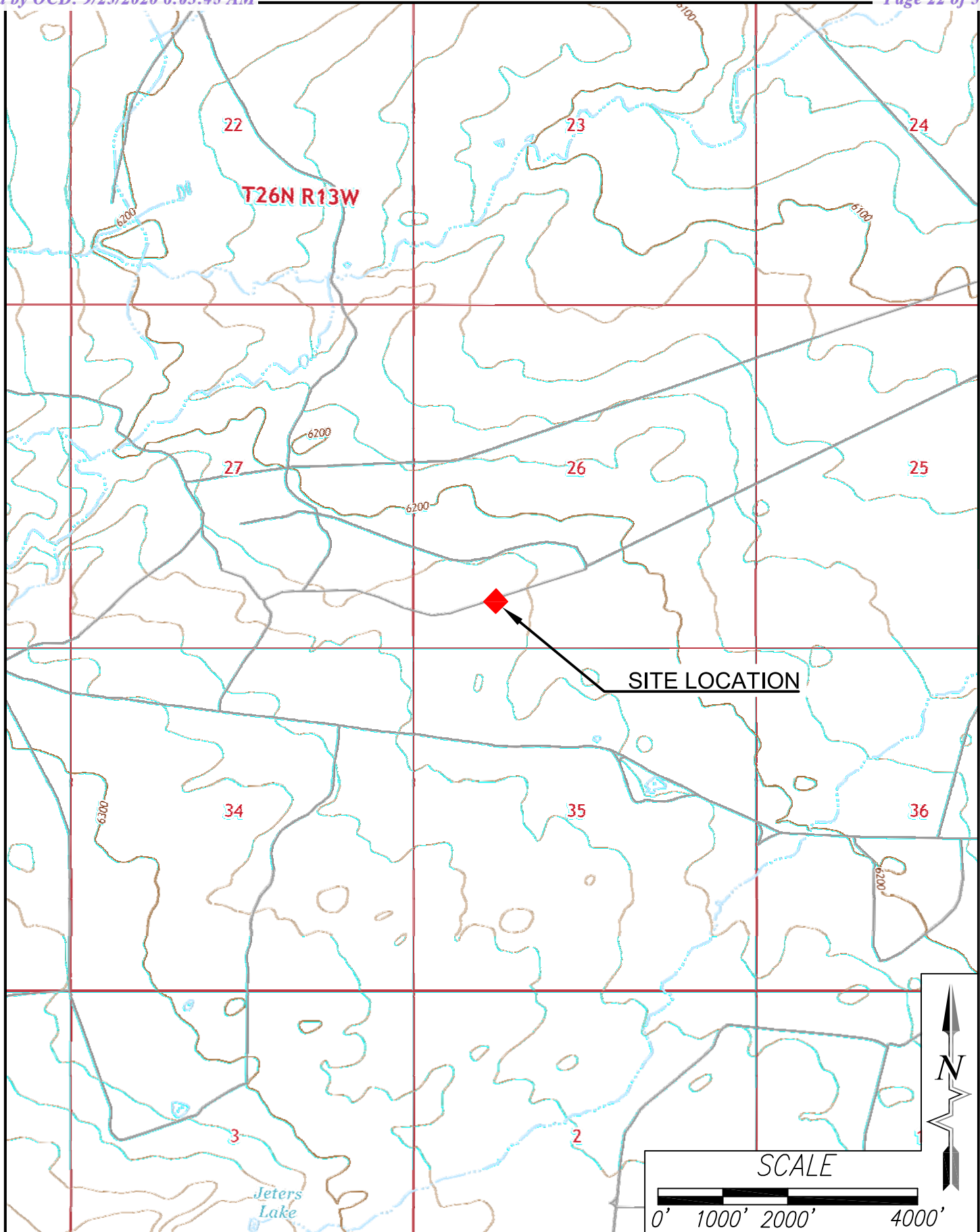
Appendix A: Form C141

Appendix B: NMOSE Wells Report

Appendix C: Field Notes and Photo Log

Appendix D: Laboratory Analytical Reports

# FIGURES



Souder, Miller & Associates

401 West Broadway Avenue  
Farmington, NM 87401-5907

Phone (505) 325-7535 Toll-Free (800) 519-0098 Fax (505) 326-0045

www.soudermiller.com

Serving the Southwest & Rocky Mountains

MUSTANG RESOURCES

FARMINGTON, NEW MEXICO

VICINITY MAP  
SERENDIPITY 3R  
M-26-26N-13W

SAN JUAN COUNTY

Designed AM	Drawn DJB	Checked SC
----------------	--------------	---------------

Date: October 2019

Scale: Horiz: 1" = 2000'  
Vert: NA

Project No: 5127515

Figure 1



Figure 2

Scale: Horiz: 1" = 100'

Vert: N/A

Date: October 2019

THIS DRAWING IS IN COMPLIANCE WITH THE REQUIREMENTS OF THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY AND NOT TO BE USED FOR CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED.

Designed	Drawn	Checked
AM	DJB	SC



**SMA**  
Engineering  
Environmental  
Surveying

**SOUDER, MILLER & ASSOCIATES**  
401 West Broadway Avenue  
Farmington, NM 87401-5907  
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MUSTANG RESOURCES	FARMINGTON, NEW MEXICO
<b>SITE MAP</b> <b>SERENDIPITY 3R</b> <b>M-26-26N-13W</b>	



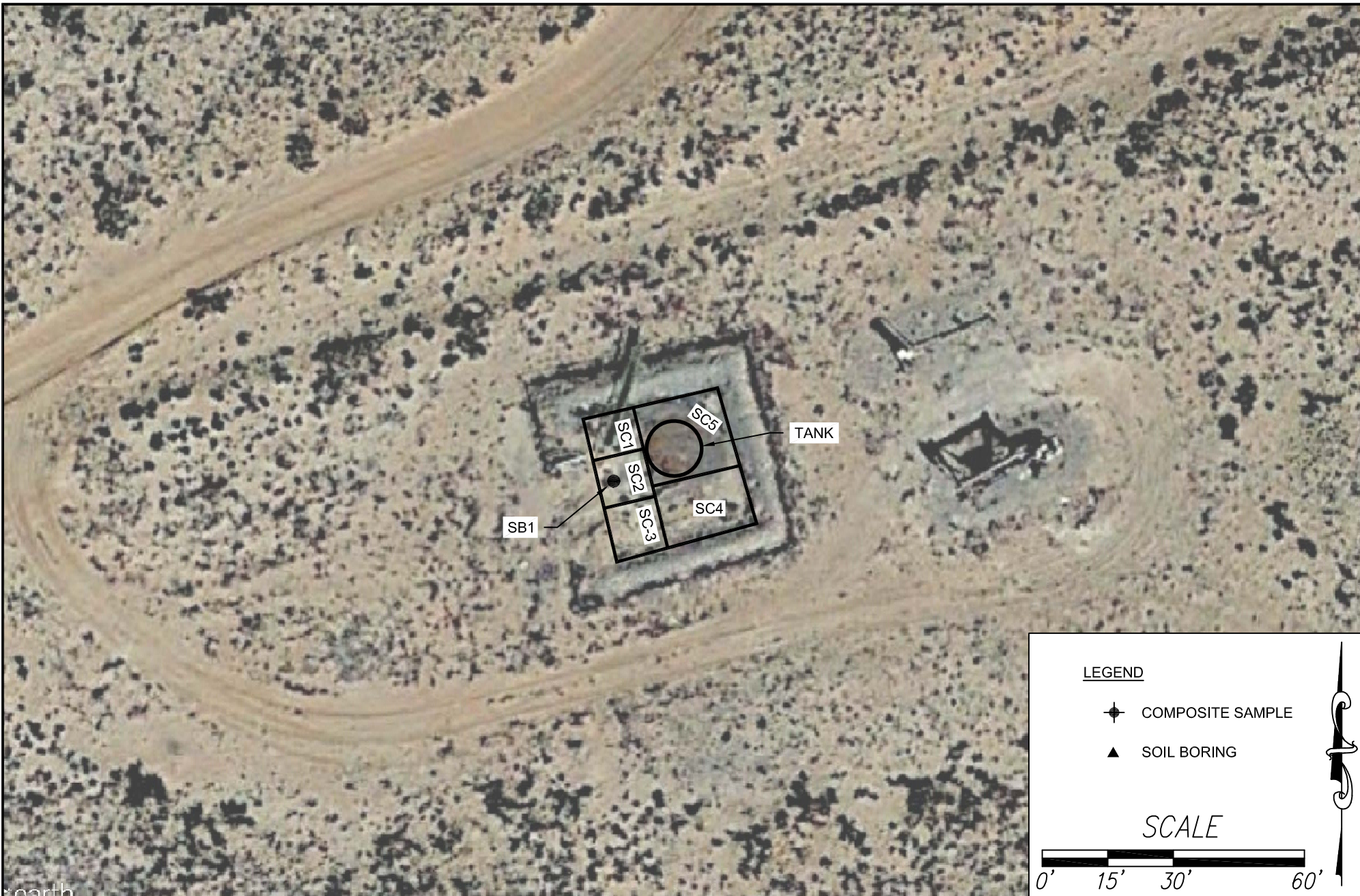


Figure 3

Project No.: 5127515

Date: October 2019

Scale: Horiz: 1" = 30'

Vert: N/A

THIS DRAWING IS IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION UNLESS IT IS STAMPED, SIGNED AND DATED.

Designed AM	Drawn DJB	Checked SC
----------------	--------------	---------------



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Serving the Southwest & Rocky Mountains  
www.soudermiller.com

MUSTANG RESOURCES

FARMINGTON, NEW MEXICO

**SAMPLE LOCATION MAP**  
**SERENDIPITY 3R**  
**M-26-26N-13W**

# TABLES



Table 2:  
NMOCD Closure CriteriaMustang Resources LLC  
Serendipity 3R (NCS1926052330)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	51-100	Cory Smith, NMOCD Environmental Specialist
Horizontal Distance From All Water Sources Within 1/2 Mile (ft)	>1/2 mile	OSE
Horizontal Distance to Nearest Significant Watercourse (ft)	730	Figure 1

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		600	100		50	10
51' to 100'	X	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?	No	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

Mustang Resources LLC  
Serendipity 3R (NCS1926052330)

Sample ID	Sample Date	Depth (feet bgs)	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	Total TPH mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria			50	10	1000			2500	10,000
SC1	9/16/2019	0.5	<0.212	<0.024	<4.7	<8.7	<43	<56.4	210
SC2	9/16/2019	0.5	<0.217	<0.024	<4.8	<9.7	<49	<63.5	670
SC3	9/16/2019	0.5	<0.207	<0.023	<4.6	<9.4	<47	<61	520
SC4	9/16/2019	0.5	<0.219	<0.024	<4.9	<9.7	<48	<62.6	360
SC5	9/16/2019	0.5	<0.222	<0.025	<4.9	<9.5	<47	<61.4	450
SB1	10/2/2019	1	--	--	--	--	--	--	390
		2	--	--	--	--	--	--	360
		3	--	--	--	--	--	--	310
		4	--	--	--	--	--	--	290

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

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

Incident ID	NCS1926052330
District RP	
Facility ID	
Application ID	

## Release Notification

### Responsible Party

Responsible Party	Mustang Resources, LLC	OGRID	373495
Contact Name	Deb Lemon	Contact Telephone	720-550-7507 ext 105
Contact email	dlemon@mustangresourcesllc.com	Incident # (assigned by OCD)	
Contact mailing address	NCS1926052330		

### Location of Release Source

Latitude 36.35871 Longitude 108.193165  
(NAD 83 in decimal degrees to 5 decimal places)

Site Name	Serendipity #3R	Site Type	Gas Well
Date Release Discovered	September 3, 2019	API# (if applicable)	30-045-30811

Unit Letter	Section	Township	Range	County
M	26	26N	13W	San Juan

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 checked="" type="checkbox"/> Produced Water	Volume Released (bbls) 160	Volume Recovered (bbls) 0
	Is the concentration of dissolved chloride in the produced water >10,000 mg/l?	<input type="checkbox"/> Yes <input checked="" 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

Mustang was informed on September 3rd at 10:35am that the produced water tank at this location overflowed. This was the result of an oversight with a water hauling contractor and not the result of a mechanical failure. Mustang estimates that approximately 160 BBLS of produced water was released.

State of New Mexico  
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Was this a major release as defined by 19.15.29.7(A) NMAC?  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If YES, for what reason(s) does the responsible party consider this a major release? An unauthorized release of a volume greater than 25 barrels of produced water
If YES, was immediate notice given to the OCD? By whom? To whom? When and by what means (phone, email, etc)? Initial Response was given via email to: Mr. Cory Smith, OCD district office; Mr. Jim Griswold, OCD environmental bureau; Mr. Virgil Lucero, BLM district field office engineer.	

**Initial Response**

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

<input checked="" type="checkbox"/> The source of the release has been stopped. <input checked="" type="checkbox"/> The impacted area has been secured to protect human health and the environment. <input checked="" type="checkbox"/> Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices. <input checked="" 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: <u>Deborah Lemon</u>	Title: <u>Regulatory Manager</u>
Signature: <u>Deborah Lemon</u>	Date: <u>9/5/2019</u>
email: <u>dlemon@mustangresourcesllc.com</u>	Telephone: <u>720-550-7507 Ext 105</u>
<b><u>OCD Only</u></b> Received by: <u>Cory Smith</u> Date: <u>9/17/19</u>	

# APPENDIX B

## NMOSE WELLS REPORT



# New Mexico Office of the State Engineer

## Wells with Well Log Information

---

No wells found.

**PLSS Search:**

**Section(s):** 26

**Township:** 26N

**Range:** 13W

---

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

10/23/19 1:28 PM

Page 1 of 1

WELLS WITH WELL LOG INFORMATION



# APPENDIX C FIELD NOTES PHOTO LOG

## Field Screening Form

Location Name

Date

Serindipity 3R

Location Name	Description	Depth (Feet BGS)	Time Collected	PID Reading (ppm)	Time Screened	PetroFLAG Reading	Time Screened
SC1		6"	9:34				
SC2		6"	9:37				
SC3		6"	9:41				
SC4		6"	9:45				
SC5		6"	9:49				
SB1		1'	9:55				
SB1		2'	10:03				
SB1		3'	10:06				
SB1		4'	10:10				

Notes:

onsite 9:45 offsite 10:35



Cory Smith onsite to witness 9/24/19

## Serendipity 3R



Photo 1: Sample area SC2.



Photo 2: Location of SB1 in sample area SC2.

# 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 24, 2019

Ashley Maxwell  
Souder, Miller and Associates  
401 W. Broadway  
Farmington, NM 87401  
TEL: (505) 325-5667  
FAX: (505) 327-1496

RE: Serendipity 3R

OrderNo.: 1909866

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 5 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".

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order 1909866

Date Reported: 9/24/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC1

Project: Serendipity 3R

Collection Date: 9/16/2019 9:34:00 AM

Lab ID: 1909866-001

Matrix: SOIL

Received Date: 9/17/2019 8:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	210	60		mg/Kg	20	9/21/2019 11:25:29 PM	47637
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	9/19/2019 9:41:51 AM	47548
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/19/2019 9:41:51 AM	47548
Surr: DNOP	96.6	70-130		%Rec	1	9/19/2019 9:41:51 AM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/18/2019 2:03:58 PM	47534
Surr: BFB	103	77.4-118		%Rec	1	9/18/2019 2:03:58 PM	47534
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/18/2019 2:03:58 PM	47534
Toluene	ND	0.047		mg/Kg	1	9/18/2019 2:03:58 PM	47534
Ethylbenzene	ND	0.047		mg/Kg	1	9/18/2019 2:03:58 PM	47534
Xylenes, Total	ND	0.094		mg/Kg	1	9/18/2019 2:03:58 PM	47534
Surr: 4-Bromofluorobenzene	87.9	80-120		%Rec	1	9/18/2019 2:03:58 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		

## Analytical Report

Lab Order 1909866

Date Reported: 9/24/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC2

Project: Serendipity 3R

Collection Date: 9/16/2019 9:37:00 AM

Lab ID: 1909866-002

Matrix: SOIL

Received Date: 9/17/2019 8:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	670	59		mg/Kg	20	9/21/2019 11:37:54 PM	47637
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/19/2019 10:03:58 AM	47548
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/19/2019 10:03:58 AM	47548
Surr: DNOP	95.3	70-130		%Rec	1	9/19/2019 10:03:58 AM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/18/2019 3:12:22 PM	47534
Surr: BFB	100	77.4-118		%Rec	1	9/18/2019 3:12:22 PM	47534
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/18/2019 3:12:22 PM	47534
Toluene	ND	0.048		mg/Kg	1	9/18/2019 3:12:22 PM	47534
Ethylbenzene	ND	0.048		mg/Kg	1	9/18/2019 3:12:22 PM	47534
Xylenes, Total	ND	0.097		mg/Kg	1	9/18/2019 3:12:22 PM	47534
Surr: 4-Bromofluorobenzene	86.9	80-120		%Rec	1	9/18/2019 3:12:22 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		

Page 2 of 9



## Analytical Report

Lab Order 1909866

Date Reported: 9/24/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC3

Project: Serendipity 3R

Collection Date: 9/16/2019 9:41:00 AM

Lab ID: 1909866-003

Matrix: SOIL

Received Date: 9/17/2019 8:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	520	60		mg/Kg	20	9/21/2019 11:50:19 PM	47637
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/19/2019 10:26:12 AM	47548
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/19/2019 10:26:12 AM	47548
Surr: DNOP	102	70-130		%Rec	1	9/19/2019 10:26:12 AM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	9/18/2019 3:35:08 PM	47534
Surr: BFB	100	77.4-118		%Rec	1	9/18/2019 3:35:08 PM	47534
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.023		mg/Kg	1	9/18/2019 3:35:08 PM	47534
Toluene	ND	0.046		mg/Kg	1	9/18/2019 3:35:08 PM	47534
Ethylbenzene	ND	0.046		mg/Kg	1	9/18/2019 3:35:08 PM	47534
Xylenes, Total	ND	0.092		mg/Kg	1	9/18/2019 3:35:08 PM	47534
Surr: 4-Bromofluorobenzene	86.5	80-120		%Rec	1	9/18/2019 3:35:08 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		

## Analytical Report

Lab Order 1909866

Date Reported: 9/24/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC4

Project: Serendipity 3R

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

Lab ID: 1909866-004

Matrix: SOIL

Received Date: 9/17/2019 8:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	360	60		mg/Kg	20	9/22/2019 12:02:43 AM	47637
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/19/2019 8:08:41 PM	47548
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/19/2019 8:08:41 PM	47548
Surr: DNOP	98.8	70-130		%Rec	1	9/19/2019 8:08:41 PM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/18/2019 5:29:05 PM	47534
Surr: BFB	98.5	77.4-118		%Rec	1	9/18/2019 5:29:05 PM	47534
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.024		mg/Kg	1	9/18/2019 5:29:05 PM	47534
Toluene	ND	0.049		mg/Kg	1	9/18/2019 5:29:05 PM	47534
Ethylbenzene	ND	0.049		mg/Kg	1	9/18/2019 5:29:05 PM	47534
Xylenes, Total	ND	0.097		mg/Kg	1	9/18/2019 5:29:05 PM	47534
Surr: 4-Bromofluorobenzene	85.5	80-120		%Rec	1	9/18/2019 5:29:05 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		

## Analytical Report

Lab Order 1909866

Date Reported: 9/24/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Client Sample ID: SC5

Project: Serendipity 3R

Collection Date: 9/16/2019 9:49:00 AM

Lab ID: 1909866-005

Matrix: SOIL

Received Date: 9/17/2019 8:32:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
<b>EPA METHOD 300.0: ANIONS</b>							Analyst: CAS
Chloride	450	59		mg/Kg	20	9/22/2019 12:15:08 AM	47637
<b>EPA METHOD 8015M/D: DIESEL RANGE ORGANICS</b>							Analyst: BRM
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/19/2019 8:31:02 PM	47548
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/19/2019 8:31:02 PM	47548
Surr: DNOP	97.7	70-130		%Rec	1	9/19/2019 8:31:02 PM	47548
<b>EPA METHOD 8015D: GASOLINE RANGE</b>							Analyst: NSB
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/18/2019 5:51:50 PM	47534
Surr: BFB	99.1	77.4-118		%Rec	1	9/18/2019 5:51:50 PM	47534
<b>EPA METHOD 8021B: VOLATILES</b>							Analyst: NSB
Benzene	ND	0.025		mg/Kg	1	9/18/2019 5:51:50 PM	47534
Toluene	ND	0.049		mg/Kg	1	9/18/2019 5:51:50 PM	47534
Ethylbenzene	ND	0.049		mg/Kg	1	9/18/2019 5:51:50 PM	47534
Xylenes, Total	ND	0.099		mg/Kg	1	9/18/2019 5:51:50 PM	47534
Surr: 4-Bromofluorobenzene	85.6	80-120		%Rec	1	9/18/2019 5:51:50 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		

Page 5 of 9

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1909866

24-Sep-19

**Client:** Souder, Miller and Associates**Project:** Serendipity 3R

Sample ID: <b>MB-47637</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>47637</b>	RunNo: <b>63102</b>								
Prep Date: <b>9/21/2019</b>	Analysis Date: <b>9/21/2019</b>	SeqNo: <b>2152517</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-47637</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>47637</b>	RunNo: <b>63102</b>								
Prep Date: <b>9/21/2019</b>	Analysis Date: <b>9/21/2019</b>	SeqNo: <b>2152518</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	96.3	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  
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

Page 6 of 9

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1909866

24-Sep-19

**Client:** Souder, Miller and Associates**Project:** Serendipity 3R

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

Page 7 of 9

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1909866

24-Sep-19

**Client:** Souder, Miller and Associates**Project:** Serendipity 3R

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			

**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#: 1909866

24-Sep-19

**Client:** Souder, Miller and Associates**Project:** Serendipity 3R

Sample ID: <b>MB-47534</b>	SampType: <b>MBLK</b>	TestCode: <b>EPA Method 8021B: Volatiles</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>2148876</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.84		1.000		84.1	80	120			

Sample ID: <b>LCS-47534</b>	SampType: <b>LCS</b>	TestCode: <b>EPA Method 8021B: Volatiles</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>2148877</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	89.3	80	120			
Toluene	0.93	0.050	1.000	0	93.0	80	120			
Ethylbenzene	0.95	0.050	1.000	0	94.6	80	120			
Xylenes, Total	2.7	0.10	3.000	0	91.0	80	120			
Surr: 4-Bromofluorobenzene	0.92		1.000		92.2	80	120			

Sample ID: <b>1909866-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SC1</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>2148884</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9643	0	95.2	76	123			
Toluene	0.97	0.048	0.9643	0	100	80.3	127			
Ethylbenzene	1.0	0.048	0.9643	0	103	80.2	131			
Xylenes, Total	2.8	0.096	2.893	0	98.3	78	133			
Surr: 4-Bromofluorobenzene	0.89		0.9643		92.0	80	120			

Sample ID: <b>1909866-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>EPA Method 8021B: Volatiles</b>								
Client ID: <b>SC1</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>2148885</b> Units: <b>mg/Kg</b>								
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.024	0.9634	0	93.9	76	123	1.45	20	
Toluene	0.95	0.048	0.9634	0	99.1	80.3	127	1.25	20	
Ethylbenzene	0.98	0.048	0.9634	0	102	80.2	131	1.56	20	
Xylenes, Total	2.8	0.096	2.890	0	97.5	78	133	0.882	20	
Surr: 4-Bromofluorobenzene	0.89		0.9634		92.7	80	120	0	0	

**Qualifiers:**

\* Value exceeds Maximum Contaminant Level.  
D Sample Diluted Due to Matrix  
H Holding times for preparation or analysis exceeded  
ND Not Detected at the Reporting Limit  
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





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-FARM

Work Order Number: 1909866

RcptNo: 1

Received By: Leah Baca

9/17/2019 8:32:00 AM

Completed By: Anne Thorne

9/17/2019 10:26:40 AM

Reviewed By: YG 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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:

(&lt;2 or &gt;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: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: \_\_\_\_\_

Client Instructions: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	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)

October 10, 2019

Ashley Maxwell  
Souder, Miller and Associates  
401 W. Broadway  
Farmington, NM 87401  
TEL: (505) 325-5667  
FAX (505) 327-1496

RE: Serendipity 3R

OrderNo.: 1910275

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 4 sample(s) on 10/3/2019 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 horizontal line.

Andy Freeman  
Laboratory Manager  
4901 Hawkins NE  
Albuquerque, NM 87109

## Analytical Report

Lab Order: 1910275

Date Reported: 10/10/2019

## Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller and Associates

Lab Order: 1910275

Project: Serendipity 3R

Lab ID: 1910275-001

Collection Date: 10/2/2019 9:55:00 AM

Client Sample ID: SB1-1'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	390	60		mg/Kg	20	10/8/2019 2:35:46 PM	48002

Lab ID: 1910275-002

Collection Date: 10/2/2019 10:03:00 AM

Client Sample ID: SB1-2'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	360	60		mg/Kg	20	10/8/2019 2:48:10 PM	48002

Lab ID: 1910275-003

Collection Date: 10/2/2019 10:06:00 AM

Client Sample ID: SB1-3'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	310	60		mg/Kg	20	10/8/2019 3:00:35 PM	48002

Lab ID: 1910275-004

Collection Date: 10/2/2019 10:10:00 AM

Client Sample ID: SB1-4'

Matrix: SOIL

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch ID
EPA METHOD 300.0: ANIONS							Analyst: CJS
Chloride	290	60		mg/Kg	20	10/8/2019 3:13:00 PM	48002

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		

**QC SUMMARY REPORT****Hall Environmental Analysis Laboratory, Inc.**

WO#: 1910275

10-Oct-19

**Client:** Souder, Miller and Associates**Project:** Serendipity 3R

Sample ID: <b>MB-48002</b>	SampType: <b>mblk</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>PBS</b>	Batch ID: <b>48002</b>	RunNo: <b>63489</b>								
Prep Date: <b>10/8/2019</b>	Analysis Date: <b>10/8/2019</b>	SeqNo: <b>2170451</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-48002</b>	SampType: <b>lcs</b>	TestCode: <b>EPA Method 300.0: Anions</b>								
Client ID: <b>LCSS</b>	Batch ID: <b>48002</b>	RunNo: <b>63489</b>								
Prep Date: <b>10/8/2019</b>	Analysis Date: <b>10/8/2019</b>	SeqNo: <b>2170452</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	94.8	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  
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

Page 2 of 2





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-FARM**Work Order Number: **1910275**

RcptNo: 1

Received By: **Erin Melendrez**

10/3/2019 8:20:00 AM

Completed By: **Erin Melendrez**

10/3/2019 5:57:24 PM

Reviewed By: **JO 10-4-19**

### 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  $>0^{\circ}\text{C}$  to  $6.0^{\circ}\text{C}$ ? 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?  
(Note discrepancies on chain of custody) Yes ☒ No ☐
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?  
(If no, notify customer for authorization.) Yes ☒ No ☐

# of preserved  
bottles checked  
for pH:

( $<2$  or  $>12$  unless noted)

Adjusted? \_\_\_\_\_

Checked by: **DAD 10/4/19**

### Special Handling (if applicable)

15. 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: \_\_\_\_\_

16. Additional remarks:

### 17. Cooler Information

Cooler No	Temp $^{\circ}\text{C}$	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.4	Good	Yes			





**District I**

1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**

811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**

1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**

1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

COMMENTS

Action 10349

**COMMENTS**

Operator:		OGRID:	Action Number:	Action Type:
MUSTANG RESOURCES LLC	1660 Lincoln Street	373495	10349	C-141
Suite 1450	Denver, CO80264			

Created By	Comment	Comment Date
csmith	Application was difficult to review, C-141 was out of order and Operator submitted duplicates from previous approvals.	03/16/2021

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
Phone:(575) 393-6161 Fax:(575) 393-0720  
**District II**  
811 S. First St., Artesia, NM 88210  
Phone:(575) 748-1283 Fax:(575) 748-9720  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
Phone:(505) 334-6178 Fax:(505) 334-6170  
**District IV**  
1220 S. St Francis Dr., Santa Fe, NM 87505  
Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
  
Action 10349

CONDITIONS OF APPROVAL

Operator: MUSTANG RESOURCES LLC Suite 1450 Denver, CO80264	1660 Lincoln Street	OGRID: 373495	Action Number: 10349	Action Type: C-141
OCD Reviewer csmith	Condition None			