Antelope Sink #1 – API# 30-015-10041 (nAPP2205926232)

Calculation of salt water released based off of last known tank gauges showing approx. 21 bbls of salt water prior to the discovery of the leak.

Souder, Miller & Associates♦201 S. Halagueno St.♦Carlsbad, NM 88220

June 6, 2022

#5E31368

NMOCD District 2
811 S. First St
Aztec, New Mexico 88220

SUBJECT: Remediation Plan for the Antelope Sink #1 Release (nAPP2205926232), Eddy County, New Mexico

To Whom It May Concern

On behalf of FE-NM, LLC, Souder, Miller & Associates (SMA) has prepared this Remediation Plan that describes the delineation and proposed remediation for a release of liquids related to oil and gas production activities at the Antelope Sink Unit #001 site. The site is in Unit G, Section 18, Township 19S, Range 24E, Eddy County, New Mexico, on State 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	Antelope Sink Unit #001	Company	FE-NM
API Number	30-015-10041	Location	32.66316, -104.62593
Tracking Number	NAPP2205926232		
Estimated Date of Release	2/17/2022	Date Reported to NMOCD	2/18/2022
Land Owner	New Mexico State Land	Reported To	NMOCD
Source of Release	Valve froze which caused the incident		
Released Volume	21 BBL	Released Material	Produced Water
Recovered Volume	0 BBL	Net Release	21 BBL
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	March 30, 2022 and May 20, 2022		

1.0 Background

On February 17, 2022, a release was discovered at the Antelope sink #1 site due to a frozen valve. Initial response activities were conducted by operator, and included source elimination, containment, and site stabilization activities. Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The release notification form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Antelope Sink Unit #001 is an active production facility located approximately 18 miles southwest of Artesia, New Mexico on State land at an elevation of approximately 3823 feet above mean sea level (amsl).

Depth to Groundwater
Based upon New Mexico Office of the State Engineer (Appendix B), depth to groundwater in the area is estimated to be an average of 382 feet below grade surface (bgs). The minimum depth is 285 feet bgs and the maximum is 480 bgs.

Wellhead Protection Area
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.

Distance to Nearest Significant Watercourse
The nearest significant watercourse is an unnamed tributary of the Fourmile Draw, located approximately 2,554 feet.

Antelope Sink Unit #001 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. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area. The site is not considered an “exploration, development, production or storage site” and therefore the top four feet must be remediated to the most stringent standards. Additionally, the release area did not occur on land considered “in-use”, as outlined by 19.15.29.13.D NMAC. Therefore, the release area shall be reclaimed within the upper four feet to meet the standards of 19.15.29.13.D(1).

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs in addition to the requirements of reclamation for the upper four feet of impacted soil.

3.0 Release Characterization Activities and Findings

On March 30, 2022 and May 20, 2022, SMA personnel performed site delineation activities at the Antelope Sink Unit #001 site. SMA collected soil samples around the release site and throughout the visibly stained area. The area of visual impact was located entirely outside the boundary of any production or storage facilities.

Soil samples were field-screened for chloride using an electrical conductivity (EC) meter.

A total of six (6) borehole locations (BH1-BH6) were investigated using excavated test pits, to depths up to six (6) feet bgs. A minimum of two samples were collected at each sampling location and field-screened using the method above. A total of twenty-six (26) samples 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.

4.0 Proposed Soil Remediation Work Plan

SMA proposes excavation and removal of contaminated soil. The impacted area will be excavated to approximately two (2) to six (6) feet bgs. SMA will guide the excavation by collecting soil samples for field screening for chloride using an EC meter.

The release area will be excavated to the NMOCD Closure Criteria as demonstrated in the attached Table 2. Confirmation samples will be comprised of representative wall and base 5-point composite samples, each representing less than 200 ft^2 of exposed excavation (Figure 3A). The confirmation samples will be collected from within the excavation in accordance with the sampling protocol included in Appendix C.

Approximately 575 cubic yards of contaminated soil is projected to be removed and replaced with clean backfill material in order to return the surface to previous contours. The contaminated soil will be transported for disposal at R360 Environmental Solutions near Hobbs, NM, an NMOCD-permitted disposal facility. Upon approval by NMOCD, the projected timeline for completion of remediation activities is approximately 90 Days days following approval.

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 SMA Project Manager, Lynn A. Acosta, at 505516-7469.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Lynn A. Acosta

Lynn A. Acosta
Staff Scientist

Reviewed by:

Ashley Maxwell
Senior Scientist

REFERENCES:

New Mexico Office of the State Engineer (NMOSE) online water well database
https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 6/5/2022

ATTACHMENTS:

Figures:

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

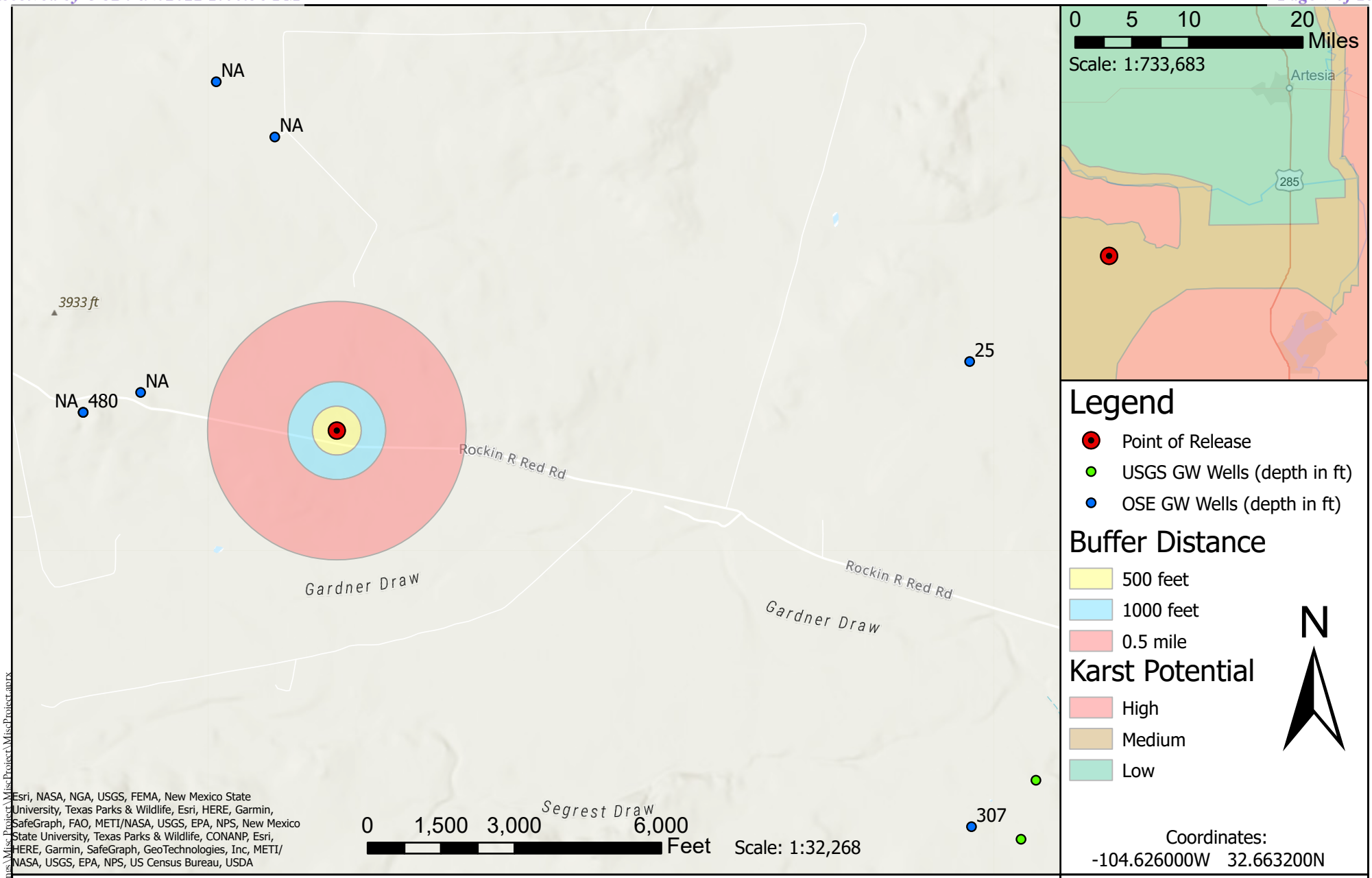
Tables:

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

Appendices:

Appendix A: Release Notification
Appendix B: NMOSE Wells Report
Appendix C: Sampling Protocol
Appendix D: Laboratory Analytical Reports

FIGURES



Site Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 1

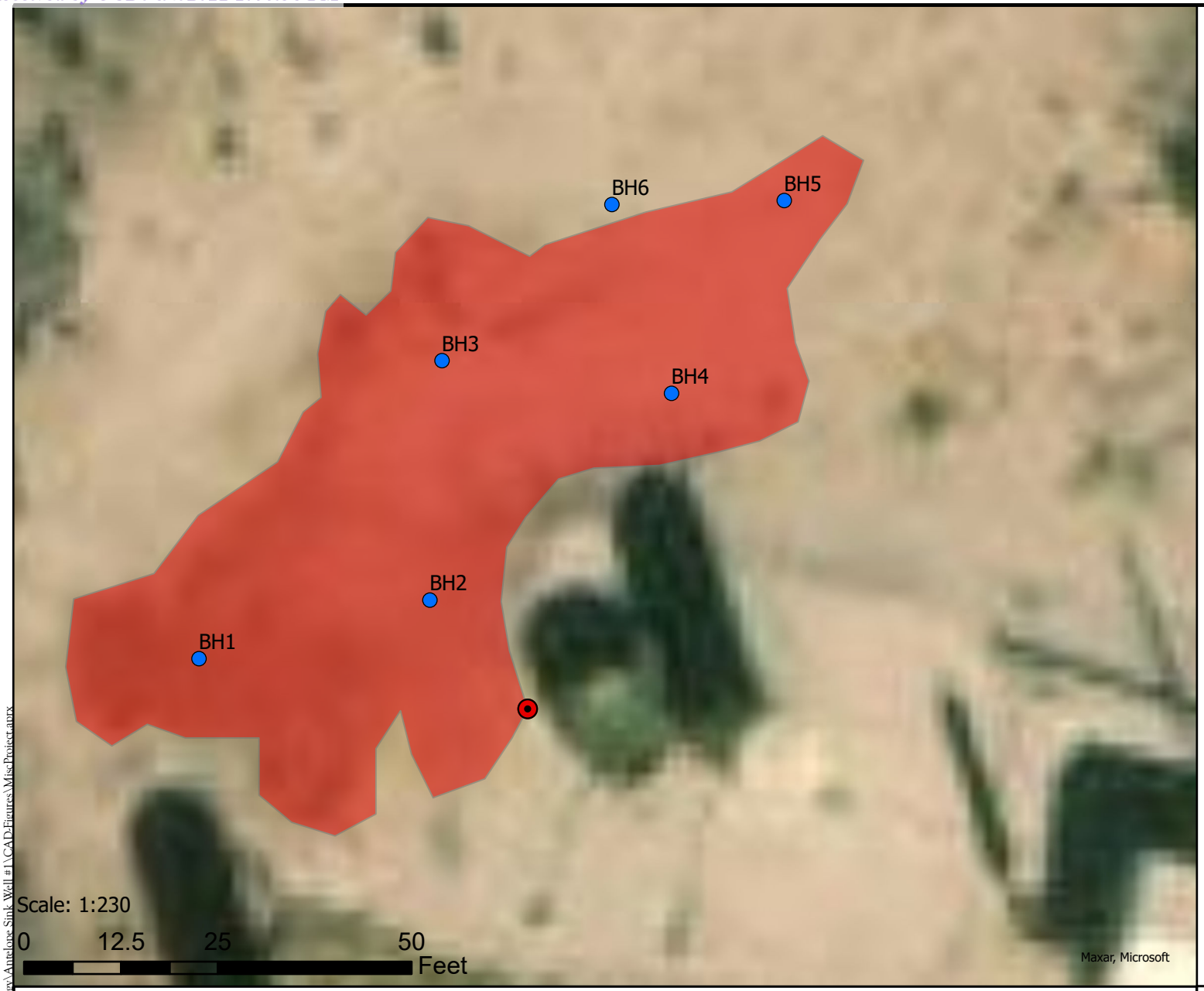
C:\Users\ss\Desktop\GIS\Lynn's things\Misc Project\Misc Project.aprx
Date Saved: 5/26/2022

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

Drawn Sarahmay Schlea
Date 5/26/2022
Checked _____
Approved _____

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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



Legend

- Point of Release
- Boreholes

Boundaries

- Release Area

N

Coordinates:
-104.626000W 32.663200N

Site and Sample Location Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 3

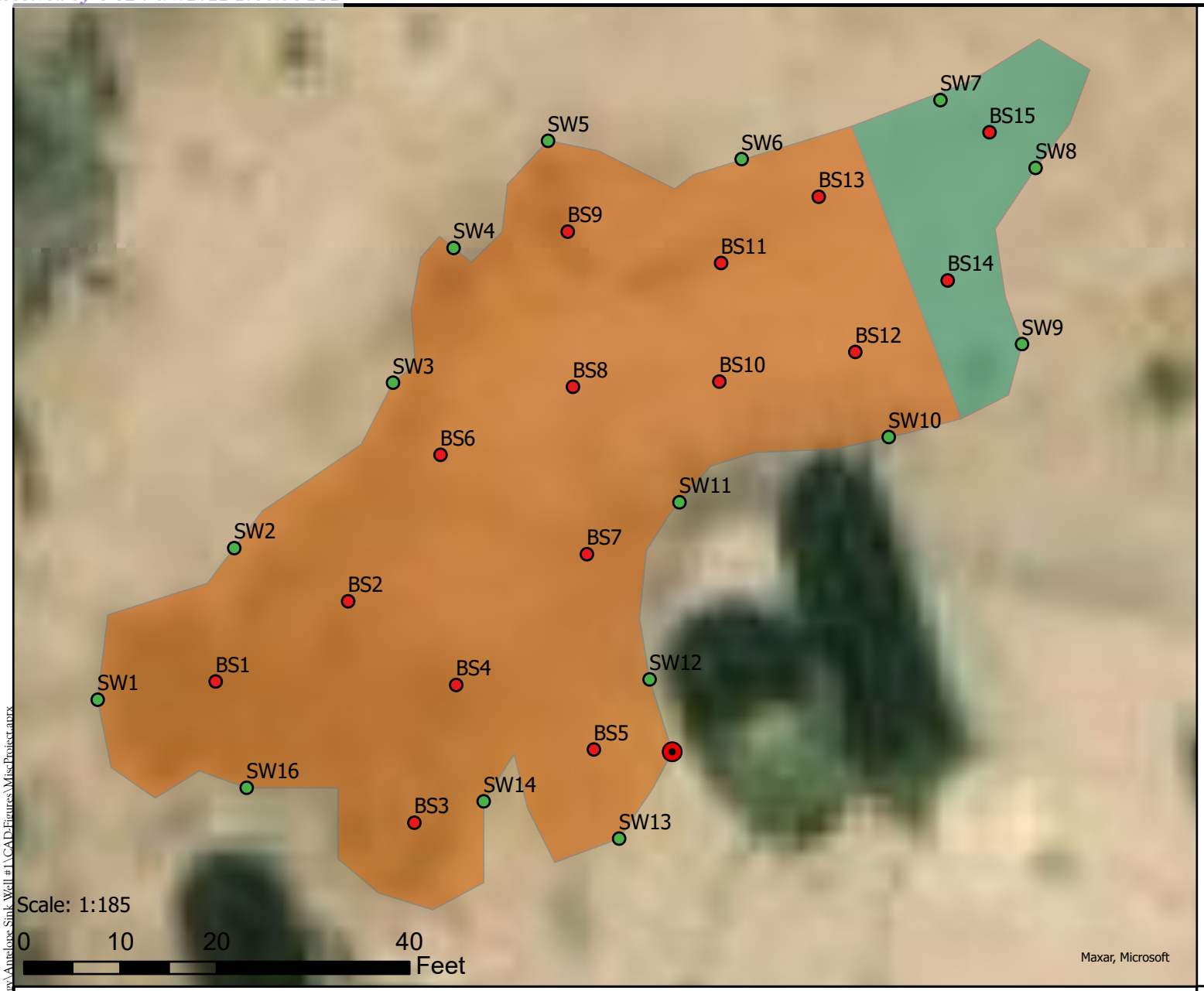
Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Sarahmay Schlea
Date 6/5/2022
Checked
Approved

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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

C:\Users\lara\Desktop\Falconer Energy\Antelope Sink Well #1\CAD Figures\Misc Project.aprx
Date Saved: 5/26/2022



Legend

Point of Release

Sample Locations

BS Proposed

SW Proposed

Boundary Type

2' Excavation

6' Excavation

N

Coordinates:
-104.626000W 32.663200N

Confirmation Sample Location Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 3A

C:\Users\klar\Desktop\Falconer Energy\Antelope Sink Well #1\CAD\Figures\MiscProject.aprx
Date Saved: 6/5/2022

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

Drawn Sarahmay Schlea
Date 6/5/2022
Checked
Approved

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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

TABLES

Table 2:
NMOCD Closure Criteria

FE-NM, LLC
Antelope Sink Unit #001

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	285	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	None	United States Geological Survey
Hortizontal Distance to Nearest Significant Watercourse (ft)	2554	Unnamed tributary of the Fourmile Draw

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	X	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?	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(Med.Risk)					
within a 100-year floodplain?	No					

SMA #

Table 3:
Summary of Sample Results

FE-NM, LLC
Antelope Sink Well #1

Sample ID	Sample Date	Depth of Sample (feet bgs)	Action Taken	Method 8021B		Method 8015D				Method 300.0
				BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl-
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria				50	10	-			100	600
BG1	3/30/2022	Surface	In-Situ	<0.213	<0.024	<4.7	<9.6	<48	<62.3	<60
	3/30/2022	1'	In-Situ	<0.224	<0.025	<5.0	<9.3	<47	<61.3	<60
BG2	3/30/2022	Surface	In-Situ	<0.216	<0.024	<4.8	<10	<50	<64.8	<60
	3/30/2022	1'	In-Situ	<0.213	<0.024	<4.7	<9.5	<47	<61.2	<60
BH1	3/30/2022	Surface	Excavate	<0.222	<0.025	<4.9	<9.5	<47	<61.4	19000
	3/30/2022	1		<0.221	<0.025	<4.9	<9.6	<48	<62.5	27000
	5/20/2022	3		-	-	-	-	-	-	6500
	5/20/2022	6	In-Situ	-	-	-	-	-	-	<60
BH2	3/30/2022	Surface	Excavate	<0.220	<0.024	<4.9	<8.5	<43	<56.4	15000
	3/30/2022	1		<0.225	<0.025	<5.0	<10	<50	<65	6100
	5/20/2022	3		-	-	-	-	-	-	4600
	5/20/2022	5	In-Situ	-	-	-	-	-	-	<60
BH3	3/30/2022	Surface	Excavate	<0.217	<0.024	<4.8	<9.3	<47	<61.1	4400
	3/30/2022	1		<0.219	<0.024	<4.9	<9.8	<49	<63.7	5700
	5/20/2022	3		-	-	-	-	-	-	2400
	5/20/2020	5	In-Situ	-	-	-	-	-	-	<60
BH4	3/30/2022	Surface	Excavate	<0.215	<0.024	<4.8	370	1000	1370	10000
	3/30/2022	1		<0.219	<0.024	<4.9	110	300	410	3900
	5/20/2022	3		-	-	<4.8	<9.3	<46	<60.1	2400
	5/20/2022	6	In-Situ	-	-	<4.8	<9.2	<46	<60.1	<60
BH5	3/30/2022	Surface	Excavate	<0.215	<0.024	<4.8	240	700	940	<60
	3/30/2022	1		<0.216	<0.024	<4.8	37	140	177	<60
	5/20/2022	2	In-Situ	-	-	<5.0	<9.7	<48	<62.7	-
	5/20/2022	3	In-Situ	-	-	<4.9	<9.7	<49	<63.6	-
BH6	3/30/2022	Surface	In-Situ	<0.222	<0.025	<4.9	<9.7	<48	<62.6	<60
	3/30/2022	1	In-Situ	<0.220	<0.024	<4.9	<9.5	<48	<62.4	<60

"-" = Not Analyzed
BG: Background sample

SMA #

APPENDIX A
RELEASE NOTIFICATION

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

QUESTIONS

Operator: FE-NM, LLC 1001 E SE Loop 323, STE. 160 Tyler, TX 75711	OGRID: 331102
	Action Number: 82668
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Location of Release Source *Please answer all of the questions in this group.*	
Site Name	Antelope Sink #1
Date Release Discovered	02/17/2022
Surface Owner	State

Incident Details *Please answer all of the questions in this group.*	
Incident Type	Produced Water Release
Did this release result in a fire or is the result of a fire	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release *Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.*	
Crude Oil Released (bbls) Details	*Not answered.*
Produced Water Released (bbls) Details	Cause: Freeze | Valve | Produced Water | Released: 21 BBL | Recovered: 0 BBL | Lost: 21 BBL]
Is the concentration of dissolved chloride in the produced water >10,000 mg/l	Yes
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	*Not answered.*

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

QUESTIONS (continued)

Operator: FE-NM, LLC 1001 E SE Loop 323, STE. 160 Tyler, TX 75711	OGRID: 331102
	Action Number: 82668
	Action Type: [NOTIFY] Notification Of Release (NOR)

QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by 19.15.29.7(A) NMAC	**No, minor release.**
Reasons why this would be considered a submission for a notification of a major release	
If YES, was immediate notice given to the OCD, by whom	*Not answered.*
If YES, was immediate notice given to the OCD, to whom	*Not answered.*
If YES, was immediate notice given to the OCD, when	*Not answered.*
If YES, was immediate notice given to the OCD, by what means (phone, email, etc.)	*Not answered.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

Initial Response	
The responsible party must undertake the following actions immediately unless they could create a safety hazard that would result in injury.	
The source of the release has been stopped	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	False
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	The site does not have containment source. Also, the water soaked into the ground before leaving the tank battery area.
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 prepare and attach a narrative of actions to date in the follow-up C-141 submission. 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 prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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

ACKNOWLEDGMENTS

Operator: FE-NM, LLC 1001 E SE Loop 323, STE. 160 Tyler, TX 75711	OGRID: 331102
	Action Number: 82668
	Action Type: [NOTIFY] Notification Of Release (NOR)

ACKNOWLEDGMENTS

☑	I acknowledge that I am authorized to submit notification of a releases on behalf of my operator.
☑	I acknowledge that upon submitting this application, I will be creating a new incident file (assigned to my operator) to track the notification(s) and corrective action(s) for a release, pursuant to NMAC 19.15.29.
☑	I acknowledge that creating a new incident file will require my operator to file subsequent submission(s) of form "C-141, Application for administrative approval of a release notification and corrective action", pursuant to NMAC 19.15.29.
☑	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.
☑	I acknowledge the fact that 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.
☑	I acknowledge the fact that, 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.

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 82668

CONDITIONS

Operator: FE-NM, LLC 1001 E SE Loop 323, STE. 160 Tyler, TX 75711	OGRID: 331102
	Action Number: 82668
	Action Type: [NOTIFY] Notification Of Release (NOR)

CONDITIONS

Created By	Condition	Condition Date
kcharles	When submitting future reports regarding this release, please submit the calculations used or specific justification for the volumes reported on the initial C-141.	2/28/2022

APPENDIX B
NMOSE WELLS REPORT

New Mexico Office of the State Engineer
Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 07942		RA	ED	4	2	2	13	19S	23E	533987	3614242*	1114	2900		
RA 07466		RA	ED			2	13	19S	23E	533686	3614137*	1396	627	480	147
RA 07466 CLW		RA	ED			2	13	19S	23E	533686	3614137*	1396	288		
RA 06777		RA	ED		4	1	07	19S	24E	534686	3615577*	1617	800		
RA 12972 POD1		RA	ED	3	2	1	13	19S	23E	532998	3614250	2092	321	285	36

Average Depth to Water: **382 feet**
Minimum Depth: **285 feet**
Maximum Depth: **480 feet**

Record Count: 5

UTMNAD83 Radius Search (in meters):

Easting (X): 535076.34 **Northing (Y):** 3614007.63 **Radius:** 2500

***UTM location was derived from PLSS - see Help**

5/25/22 5:42 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX C
SAMPLING PROTOCOL

Souder, Miller & Associates ♦ 201 S. Halagueno ♦ Carlsbad, NM 88220
(575) 689-8801

Sampling Protocol

The soil samples were collected in laboratory supplied containers in accordance with this sampling protocol, immediately placed on ice and sent under standard chain-of-custody protocols to Hall Environmental Analysis Laboratory (HEAL) in Albuquerque, New Mexico for analysis. A total of twenty-six (26) samples 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.

Sampling Analysis Field Quality Assurance Procedures

A unique sample numbering was used to identify each sample collected and designated for on-site and off-site laboratory analysis. The purpose of this numbering scheme was to provide a tracking system for the retrieval of analytical and field data on each sample. Sample identification numbers were recorded on sample labels or tags, field notes, chain-of-custody records (COC) and all other applicable documentation used during the project. Sample labels were affixed to all sample containers during sampling activities. Information was recorded on each sample container label at the time of sample collection. The information recorded on the labels were as follows: sample identification number; sample type (discrete or composite); site name and area/location number; analysis to be performed; type of chemical preservative present in container; date and time of sample collection; and sample collector's name and initials. All samples were packed in ice in an approved rigid body container, custody sealed signed and shipped to the appropriate laboratory via insured currier service.

COC procedures implemented for the project provided documentation of the handling of each sample from the time of collection until completion of laboratory analysis. A COC form serves as a legal record of possession of the sample. A sample is considered to be under custody if one or more of the following criteria are met: the sample is in the sampler's possession; the sample is in the sampler's view after being in possession; the sample was in the sampler's possession and then was placed into a locked area to prevent tampering; and/or the sample is in a designated secure area. Custody was documented throughout the project field sampling activities by a chain-of custody form initiated each day during which samples are collected. Container custody seals placed on either individual samples or on the rigid body container were used to ensure that no sample tampering occurs between the time the samples are placed into the containers and the time the containers are opened for analysis at the laboratory. Container custody seals were signed and dated by the individual responsible for completing the COC form contained within the container.

APPENDIX D

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 06, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: Antelope Well 1 OrderNo.: 2203F71

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 12 sample(s) on 3/30/2022 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued April 11, 2022.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

CLIENT: Souder, Miller & Associates
Project: Antelope Well 1
Lab ID: 2203F71-001 **Matrix:** SOIL

Client Sample ID: BH1-Surface
Collection Date: 3/29/2022 8:15:00 AM
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	19000	1500		mg/Kg	500	4/6/2022 6:23:51 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/1/2022 11:37:03 PM	66523
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/1/2022 11:37:03 PM	66523
Surr: DNOP	75.6	51.1-141		%Rec	1	4/1/2022 11:37:03 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Surr: BFB	101	37.7-212		%Rec	1	4/1/2022 10:49:00 PM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Toluene	ND	0.049		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Xylenes, Total	ND	0.099		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Surr: 4-Bromofluorobenzene	85.4	70-130		%Rec	1	4/1/2022 10:49:00 PM	66508

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:17:00 AM
Lab ID: 2203F71-002 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	27000	1500		mg/Kg	500	4/6/2022 6:36:16 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/2/2022 12:49:32 AM	66523
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/2/2022 12:49:32 AM	66523
Surr: DNOP	63.6	51.1-141		%Rec	1	4/2/2022 12:49:32 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Surr: BFB	104	37.7-212		%Rec	1	4/1/2022 11:48:00 PM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Toluene	ND	0.049		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Xylenes, Total	ND	0.098		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Surr: 4-Bromofluorobenzene	87.0	70-130		%Rec	1	4/1/2022 11:48:00 PM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:20:00 AM
Lab ID: 2203F71-003 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	15000	1500		mg/Kg	500	4/6/2022 12:36:21 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	4/2/2022 1:13:35 AM	66523
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	4/2/2022 1:13:35 AM	66523
Surr: DNOP	87.6	51.1-141		%Rec	1	4/2/2022 1:13:35 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Surr: BFB	106	37.7-212		%Rec	1	4/2/2022 12:48:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Xylenes, Total	ND	0.098		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	4/2/2022 12:48:00 AM	66508

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:22:00 AM
Lab ID: 2203F71-004 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	6100	300		mg/Kg	100	4/6/2022 1:13:35 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/2/2022 1:37:40 AM	66523
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/2/2022 1:37:40 AM	66523
Surr: DNOP	101	51.1-141		%Rec	1	4/2/2022 1:37:40 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Surr: BFB	100	37.7-212		%Rec	1	4/2/2022 1:07:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Toluene	ND	0.050		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	4/2/2022 1:07:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:24:00 AM
Lab ID: 2203F71-005 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	4400	300		mg/Kg	100	4/6/2022 1:50:48 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/4/2022 6:35:20 PM	66523
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/4/2022 6:35:20 PM	66523
Surr: DNOP	71.4	51.1-141		%Rec	1	4/4/2022 6:35:20 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Surr: BFB	100	37.7-212		%Rec	1	4/2/2022 1:27:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	4/2/2022 1:27:00 AM	66508

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:26:00 AM
Lab ID: 2203F71-006 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	5700	300		mg/Kg	100	4/6/2022 2:03:13 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/2/2022 2:25:55 AM	66523
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/2/2022 2:25:55 AM	66523
Surr: DNOP	54.9	51.1-141		%Rec	1	4/2/2022 2:25:55 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Surr: BFB	105	37.7-212		%Rec	1	4/2/2022 1:47:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	4/2/2022 1:47:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:30:00 AM
Lab ID: 2203F71-007 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	10000	600		mg/Kg	200	4/6/2022 2:40:28 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	370	90		mg/Kg	10	4/2/2022 2:49:50 AM	66523
Motor Oil Range Organics (MRO)	1000	450		mg/Kg	10	4/2/2022 2:49:50 AM	66523
Surr: DNOP	0	51.1-141	S	%Rec	10	4/2/2022 2:49:50 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Surr: BFB	105	37.7-212		%Rec	1	4/2/2022 2:07:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Xylenes, Total	ND	0.095		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	4/2/2022 2:07:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:32:00 AM
Lab ID: 2203F71-008 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	3900	150		mg/Kg	50	4/6/2022 2:52:52 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	110	9.8		mg/Kg	1	4/2/2022 3:13:58 AM	66523
Motor Oil Range Organics (MRO)	300	49		mg/Kg	1	4/2/2022 3:13:58 AM	66523
Surr: DNOP	80.0	51.1-141		%Rec	1	4/2/2022 3:13:58 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Surr: BFB	103	37.7-212		%Rec	1	4/2/2022 2:27:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	1	4/2/2022 2:27:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:35:00 AM
Lab ID: 2203F71-009 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:05:17 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	240	100		mg/Kg	10	4/6/2022 11:30:29 AM	66650
Motor Oil Range Organics (MRO)	700	500		mg/Kg	10	4/6/2022 11:30:29 AM	66650
Surr: DNOP	0	51.1-141	S	%Rec	10	4/6/2022 11:30:29 AM	66650
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Surr: BFB	109	37.7-212		%Rec	1	4/2/2022 2:46:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Xylenes, Total	ND	0.095		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Surr: 4-Bromofluorobenzene	86.9	70-130		%Rec	1	4/2/2022 2:46:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:37:00 AM
Lab ID: 2203F71-010 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:42:31 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	37	9.8		mg/Kg	1	4/4/2022 8:12:51 PM	66523
Motor Oil Range Organics (MRO)	140	49		mg/Kg	1	4/4/2022 8:12:51 PM	66523
Surr: DNOP	81.0	51.1-141		%Rec	1	4/4/2022 8:12:51 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Surr: BFB	102	37.7-212		%Rec	1	4/2/2022 3:06:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Xylenes, Total	ND	0.096		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Surr: 4-Bromofluorobenzene	85.7	70-130		%Rec	1	4/2/2022 3:06:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH6-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:40:00 AM
Lab ID: 2203F71-011 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:54:55 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/4/2022 8:37:07 PM	66523
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2022 8:37:07 PM	66523
Surr: DNOP	97.1	51.1-141		%Rec	1	4/4/2022 8:37:07 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Surr: BFB	106	37.7-212		%Rec	1	4/2/2022 4:25:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Xylenes, Total	ND	0.099		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	4/2/2022 4:25:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH6-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:42:00 AM
Lab ID: 2203F71-012 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 4:07:19 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/4/2022 9:01:24 PM	66523
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2022 9:01:24 PM	66523
Surr: DNOP	80.1	51.1-141		%Rec	1	4/4/2022 9:01:24 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Surr: BFB	101	37.7-212		%Rec	1	4/2/2022 4:45:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Xylenes, Total	ND	0.098		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Surr: 4-Bromofluorobenzene	83.3	70-130		%Rec	1	4/2/2022 4:45:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **MB-66638**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **66638**	RunNo: **87038**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3077760** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66638**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **66638**	RunNo: **87038**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3077761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.3	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **2203F71-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH1-Surface**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/2/2022**	SeqNo: **3072505** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.6	48.17	0	77.4	36.1	154			
Surr: DNOP	2.0		4.817		40.9	51.1	141			S

Sample ID: **2203F71-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH1-Surface**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/2/2022**	SeqNo: **3072506** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.7	48.64	0	90.3	36.1	154	16.3	33.9	
Surr: DNOP	1.9		4.864		39.7	51.1	141	0	0	S

Sample ID: **LCS-66523**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/1/2022**	SeqNo: **3072547** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.2	68.9	135			
Surr: DNOP	4.6		5.000		91.7	51.1	141			

Sample ID: **MB-66523**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/1/2022**	SeqNo: **3072549** Units: **mg/Kg**

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		104	51.1	141			

Sample ID: **MB-66650**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66650**	RunNo: **87033**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3075736** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.1	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **LCS-66650**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66650**	RunNo: **87033**
Prep Date: ***4/5/2022***	Analysis Date: ***4/6/2022***	SeqNo: **3075737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.4	68.9	135			
Surr: DNOP	4.2		5.000		84.5	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **lcs-66508**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071525** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	72.3	137			
Surr: BFB	2200		1000		225	37.7	212			S

Sample ID: **mb-66508**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071526** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	37.7	212			

Sample ID: **2203F71-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH1-Surface**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071528** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.49	0	120	70	130			
Surr: BFB	2300		979.4		238	37.7	212			S

Sample ID: **2203F71-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH1-Surface**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071529** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.51	0	119	70	130	0.203	20	
Surr: BFB	2300		980.4		239	37.7	212	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **lcs-66508**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071497** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.3	80	120			
Toluene	0.90	0.050	1.000	0	89.9	80	120			
Ethylbenzene	0.91	0.050	1.000	0	90.6	80	120			
Xylenes, Total	2.7	0.10	3.000	0	90.4	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.1	70	130			

Sample ID: **mb-66508**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071498** Units: **mg/Kg**

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	0.87		1.000		87.3	70	130			

Sample ID: **2203F71-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH1-1'**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/2/2022**	SeqNo: **3071501** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.024	0.9737	0	88.9	68.8	120			
Toluene	0.89	0.049	0.9737	0	91.1	73.6	124			
Ethylbenzene	0.90	0.049	0.9737	0	92.4	72.7	129			
Xylenes, Total	2.7	0.097	2.921	0	92.4	75.7	126			
Surr: 4-Bromofluorobenzene	0.85		0.9737		87.1	70	130			

Sample ID: **2203F71-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH1-1'**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/2/2022**	SeqNo: **3071502** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.024	0.9671	0	84.5	68.8	120	5.78	20	
Toluene	0.84	0.048	0.9671	0	86.8	73.6	124	5.51	20	
Ethylbenzene	0.85	0.048	0.9671	0	88.3	72.7	129	5.25	20	
Xylenes, Total	2.6	0.097	2.901	0	88.1	75.7	126	5.38	20	
Surr: 4-Bromofluorobenzene	0.84		0.9671		87.2	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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 & Associates

Work Order Number: 2203F71

RcptNo: 1

Received By: Juan Rojas 3/30/2022 9:15:00 AM

Completed By: Sean Livingston 3/30/2022 10:08:15 AM

Reviewed By: JN 3/30/22

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. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: TMC 3/30/22

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 ☐

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good				

Chain-of-Custody Record

Client: SMH- Calsbad

Mailing Address:

Phone #:

email or Fax#: Lynn.acosta@scudermiller.com

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☒ Rush 5 day TAT

Project Name: Antelope Well #~~2~~ 1

Project #: per Ashley Maxwell

Project Manager: Lynn Acosta

Sampler: LAH

On Ice: ~~☒ Yes~~ ☐ No

\# of Coolers: 1

Cooler Temp (including CF): 0.6-0.3=0.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2203E71	(BTEX) / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl) F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/24/22	8:15	Soil	BH1-Surface	4oz	ice	001	X	X					X			
	8:17		BH1-1'			002										
	8:20		BH2-Surface			003										
	8:22		BH2-1'			004										
	8:24		BH3-Surface			005										
	8:26		BH3-1'			006										
	8:30		BH4-Surface			007										
	8:32		BH4-1'			008										
	8:35		BH5-Surface			009										
	8:37		BH5-1'			010										
	8:40		BH6-Surface			011										
	8:42		BH6-1'			012										

Date	Time	Relinquished by	Received by	Via	Date	Time
3/29/22	1045	[signature]	[signature]		3/29/22	1049
3/29/22	1900	[signature]	[signature]	courier	3/30/22	9:15

Remarks: Email Results: Lynn.acosta@scudermiller.com

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 12, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Antelope Sink Well 1 OrderNo.: 2204029

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/1/2022 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204029**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG1-Surface
Project: Antelope Sink Well 1
Collection Date: 3/30/2022
Lab ID: 2204029-001 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 10:54:22 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Surr: BFB	98.2	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/5/2022 4:01:59 PM	66611
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2022 4:01:59 PM	66611
Surr: DNOP	82.4	51.1-141		%Rec	1	4/5/2022 4:01:59 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.024		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Toluene	ND	0.047		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Ethylbenzene	ND	0.047		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Xylenes, Total	ND	0.095		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
Surr: Dibromofluoromethane	105	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
Surr: Toluene-d8	95.7	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204029**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** BG1-1'
Project: Antelope Sink Well 1 **Collection Date:** 3/30/2022
Lab ID: 2204029-002 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 11:06:42 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Surr: BFB	105	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/5/2022 4:26:18 PM	66611
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2022 4:26:18 PM	66611
Surr: DNOP	82.1	51.1-141		%Rec	1	4/5/2022 4:26:18 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.025		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Toluene	ND	0.050		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Xylenes, Total	ND	0.099		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
Surr: Dibromofluoromethane	107	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
Surr: Toluene-d8	99.1	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**

12-Apr-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **MB-66705**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **66705**	RunNo: **87092**
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078859** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66705**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **66705**	RunNo: **87092**
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078860** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.0	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **LCS-66611** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **66611** RunNo: **87027**
Prep Date: **4/4/2022** Analysis Date: **4/5/2022** SeqNo: **3075308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	68.9	135			
Surr: DNOP	5.1		5.000		102	51.1	141			

Sample ID: **MB-66611** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **66611** RunNo: **87027**
Prep Date: **4/4/2022** Analysis Date: **4/5/2022** SeqNo: **3075310** Units: **mg/Kg**

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	9.4		10.00		93.7	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078655** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.7	70	130			
Toluene	0.97	0.050	1.000	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.5	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.0	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078657** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.48		0.5000		95.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.2	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.7	70	130			
Surr: Toluene-d8	0.51		0.5000		101	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Souder, Miller & Associates

Work Order Number: 2204029

RcptNo: 1

Received By: Tracy Casarrubias 4/1/2022 9:50:00 AM

Completed By: Cheyenne Cason 4/1/2022 10:26:46 AM

Reviewed By: JO 4/1/22

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. 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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	Checked by: KPL 4/1/22

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day TAT

Project Name: Antelope Sink well #1

Project #:

Project Manager: Lynn Acosta

Sampler: LAA

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.8 - 0.1 = 3.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204029	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/31/22		Soil	BG1 - Surface	4oz	Ice	001	X	X					X			
"		"	BG1 - 1'	"	"	002	X	X					X			

Analysis Request

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
3/31/22	830				3/31/22	830
3/31/22	1900				4/1/22	9:50

Remarks:
email: Lynn.acosta@cardermiller.com

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 12, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Antelope Sink Well 1 OrderNo.: 2204030

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/1/2022 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204030**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG2-Surface
Project: Antelope Sink Well 1
Collection Date: 3/30/2022
Lab ID: 2204030-001 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 11:19:02 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Surr: BFB	103	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/5/2022 4:51:03 PM	66611
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/5/2022 4:51:03 PM	66611
Surr: DNOP	73.8	51.1-141		%Rec	1	4/5/2022 4:51:03 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.024		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Toluene	ND	0.048		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Xylenes, Total	ND	0.096		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
Surr: Dibromofluoromethane	108	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
Surr: Toluene-d8	99.2	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204030**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG2-1'
Project: Antelope Sink Well 1
Collection Date: 3/30/2022
Lab ID: 2204030-002 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 11:56:05 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Surr: BFB	102	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/5/2022 5:15:19 PM	66611
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2022 5:15:19 PM	66611
Surr: DNOP	92.0	51.1-141		%Rec	1	4/5/2022 5:15:19 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.024		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Toluene	ND	0.047		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Ethylbenzene	ND	0.047		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Xylenes, Total	ND	0.095		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
Surr: 4-Bromofluorobenzene	98.2	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
Surr: Dibromofluoromethane	104	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
Surr: Toluene-d8	95.2	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**

12-Apr-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **MB-66705**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **66705**	RunNo: **87092**							
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078859**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66705**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **66705**	RunNo: **87092**							
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078860**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.0	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **LCS-66611** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **66611** RunNo: **87027**
Prep Date: **4/4/2022** Analysis Date: **4/5/2022** SeqNo: **3075308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	68.9	135			
Surr: DNOP	5.1		5.000		102	51.1	141			

Sample ID: **MB-66611** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **66611** RunNo: **87027**
Prep Date: **4/4/2022** Analysis Date: **4/5/2022** SeqNo: **3075310** Units: **mg/Kg**

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	9.4		10.00		93.7	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078655** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.7	70	130			
Toluene	0.97	0.050	1.000	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.5	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.0	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078657** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.48		0.5000		95.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.2	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.7	70	130			
Surr: Toluene-d8	0.51		0.5000		101	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**

12-Apr-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Souder, Miller & Associates

Work Order Number: 2204030

RcptNo: 1

Received By: Tracy Casarrubias 4/1/2022 9:50:00 AM

Completed By: Cheyenne Cason 4/1/2022 10:30:33 AM

Reviewed By: IO 4/1/22

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. 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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	Checked by: KPG 4/1/22

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#: Lynn.acosta@swdenmiller.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day TAT

Project Name: Antelope Sink well #1

Project #:

Project Manager: Lynn Acosta

Sampler: LHA

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.8 - 0.1 = 3.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204030	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl, F, Br, NO_3, NO_2, PO_4, SO_4)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/31/22		Soil	BG2-Surface	4oz	Cool	001	X	X					X			
			BG2-1'			002	X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
3/31/22	830				3/31/22	830
3/31/22	1900				4/1/22	9:50

Remarks:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 02, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX

RE: Antelope Sink Well 1 OrderNo.: 2205A33

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 10 sample(s) on 5/24/2022 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-001 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	6500	300		mg/Kg	100	5/27/2022 8:34:07 PM	67733

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-6'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-002 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	59		mg/Kg	20	5/26/2022 11:22:17 PM	67733

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-003 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	4600	150		mg/Kg	50	5/27/2022 8:46:31 PM	67733

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-5'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-004 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	5/27/2022 8:58:56 PM	67759

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-005 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2400	150		mg/Kg	50	5/31/2022 9:50:38 AM	67759

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-5'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-006 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	5/27/2022 9:23:45 PM	67759

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-007 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2400	150		mg/Kg	50	5/31/2022 10:03:03 AM	67759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/25/2022 12:06:40 PM	67670
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/25/2022 12:06:40 PM	67670
Surr: DNOP	103	51.1-141		%Rec	1	5/25/2022 12:06:40 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/26/2022 9:51:13 AM	67661
Surr: BFB	92.6	37.7-212		%Rec	1	5/26/2022 9:51:13 AM	67661

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-6'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-008 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	5/27/2022 9:48:35 PM	67759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/25/2022 12:17:25 PM	67670
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/25/2022 12:17:25 PM	67670
Surr: DNOP	72.6	51.1-141		%Rec	1	5/25/2022 12:17:25 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/26/2022 10:14:54 AM	67661
Surr: BFB	94.1	37.7-212		%Rec	1	5/26/2022 10:14:54 AM	67661

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-2'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-009 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/25/2022 12:28:14 PM	67670
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/25/2022 12:28:14 PM	67670
Surr: DNOP	78.9	51.1-141		%Rec	1	5/25/2022 12:28:14 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/26/2022 10:38:23 AM	67661
Surr: BFB	91.9	37.7-212		%Rec	1	5/26/2022 10:38:23 AM	67661

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** BH5-3'
Project: Antelope Sink Well 1 **Collection Date:** 5/20/2022
Lab ID: 2205A33-010 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/25/2022 12:39:00 PM	67670
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/25/2022 12:39:00 PM	67670
Surr: DNOP	99.3	51.1-141		%Rec	1	5/25/2022 12:39:00 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/26/2022 11:01:56 AM	67661
Surr: BFB	90.7	37.7-212		%Rec	1	5/26/2022 11:01:56 AM	67661

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205A33**

02-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **LCS-67733**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **67733**	RunNo: **88302**							
Prep Date: **5/26/2022**	Analysis Date: **5/26/2022**	SeqNo: **3132780**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.7	90	110			

Sample ID: **MB-67759**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **67759**	RunNo: **88373**							
Prep Date: **5/27/2022**	Analysis Date: **5/27/2022**	SeqNo: **3134723**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67759**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **67759**	RunNo: **88373**							
Prep Date: **5/27/2022**	Analysis Date: **5/27/2022**	SeqNo: **3134724**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205A33**

02-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **LCS-67667**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67667**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129962** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.2		5.000		124	51.1	141			

Sample ID: **LCS-67670**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67670**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129963** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	115	64.4	127			
Surr: DNOP	6.5		5.000		129	51.1	141			

Sample ID: **MB-67667**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67667**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129964** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.3		10.00		93.2	51.1	141			

Sample ID: **MB-67670**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67670**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129965** Units: **mg/Kg**

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	9.7		10.00		96.8	51.1	141			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205A33**

02-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **mb-67661**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **67661**	RunNo: **88270**
Prep Date: **5/24/2022**	Analysis Date: **5/26/2022**	SeqNo: **3130075** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.3	37.7	212			

Sample ID: **lcs-67661**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **67661**	RunNo: **88270**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130076** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	72.3	137			
Surr: BFB	2100		1000		205	37.7	212			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Souder, Miller & Associates | Work Order Number: 2205A33 | RcptNo: 1

Received By: Juan Rojas 5/24/2022 7:00:00 AM

Completed By: Tracy Casarrubias 5/24/2022 7:59:26 AM

Reviewed By: KPG 5.24.22

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. 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: JN 5/24/22

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Not Present			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush 5 day TAT

Project Name: Antelope Sink Well #1

Project #:

Project Manager: Lynn Acosta

Sampler: LAA

On Ice: ☐ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.4-0=0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2205A83	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl), F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/24/22		soil	BH1 - 3'	4oz	ICE	001							X			
			BH1 - 6'			002							X			
			BH2 - 3'			003							X			
			BH2 - 5'			004							X			
			BH3 - 3'			005							X			
			BH3 - 5'			006							X			
			BH4 - 3'			007		X					X			
			BH4 - 6'			008		X					X			
			BH5 - 2'			009		X								
			BH5 - 3'			010		X								

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
5/24/22	1100				5/25/22	1100
5/24/22	1900			courier	5/24/22	7:50

Remarks:

Direct Bill: Falconer Energy

KCharles@Faulenergy.com

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.

State of New Mexico
Oil Conservation Division

Incident ID	
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?	285 bgs (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ 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)?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ 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?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☐ Yes ☒ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☐ Yes ☒ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ 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	
District RP	
Facility ID	
Application ID	

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: Karen Charles Title: Production Analyst

Signature: Karen Charles Date: 6/7/2022

email: kcharles@faulenergy.com Telephone: 903-581-4382 ext. 233

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- [X] Detailed description of proposed remediation technique
- [X] Scaled sitemap with GPS coordinates showing delineation points
- [X] Estimated volume of material to be remediated
- [X] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [X] 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: Karen Charles Title: Production Analyst

Signature: Karen Charles Date: 6/7/2022

email: kcharles@faulenergy.com Telephone: 903-581-4382, ext. 233

OCD Only

Received by: _____ Date: _____

- [ ] Approved
- [ ] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAPP2205926232
District RP	
Facility ID	
Application ID	

Remediation Plan

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

- [X] Detailed description of proposed remediation technique
- [X] Scaled sitemap with GPS coordinates showing delineation points
- [X] Estimated volume of material to be remediated
- [X] Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC
- [X] 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: Karen Charles Title: Production Analyst

Signature: Karen Charles Date: 6/7/2022

email: kcharles@faulenergy.com Telephone: 903-581-4382, ext. 233

OCD Only

Received by: Robert Hamlet Date: 10/13/2022

- [ ] Approved
- [X] Approved with Attached Conditions of Approval
- [ ] Denied
- [ ] Deferral Approved

Signature: Robert Hamlet Date: 10/13/2022

APPENDIX B
NMOSE WELLS REPORT

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the POD suffix indicates the POD has been replaced & no longer serves a water right file.)

(R=POD has been replaced, O=orphaned, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)
(quarters are smallest to largest) (NAD83 UTM in meters) (In feet)

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
RA 07942		RA	ED	4	2	2	13	19S	23E	533987	3614242*	1114	2900		
RA 07466		RA	ED			2	13	19S	23E	533686	3614137*	1396	627	480	147
RA 07466 CLW		RA	ED			2	13	19S	23E	533686	3614137*	1396	288		
RA 06777		RA	ED		4	1	07	19S	24E	534686	3615577*	1617	800		
RA 12972 POD1		RA	ED	3	2	1	13	19S	23E	532998	3614250	2092	321	285	36

Average Depth to Water: **382 feet**

Minimum Depth: **285 feet**

Maximum Depth: **480 feet**

Record Count: 5

UTMNAD83 Radius Search (in meters):

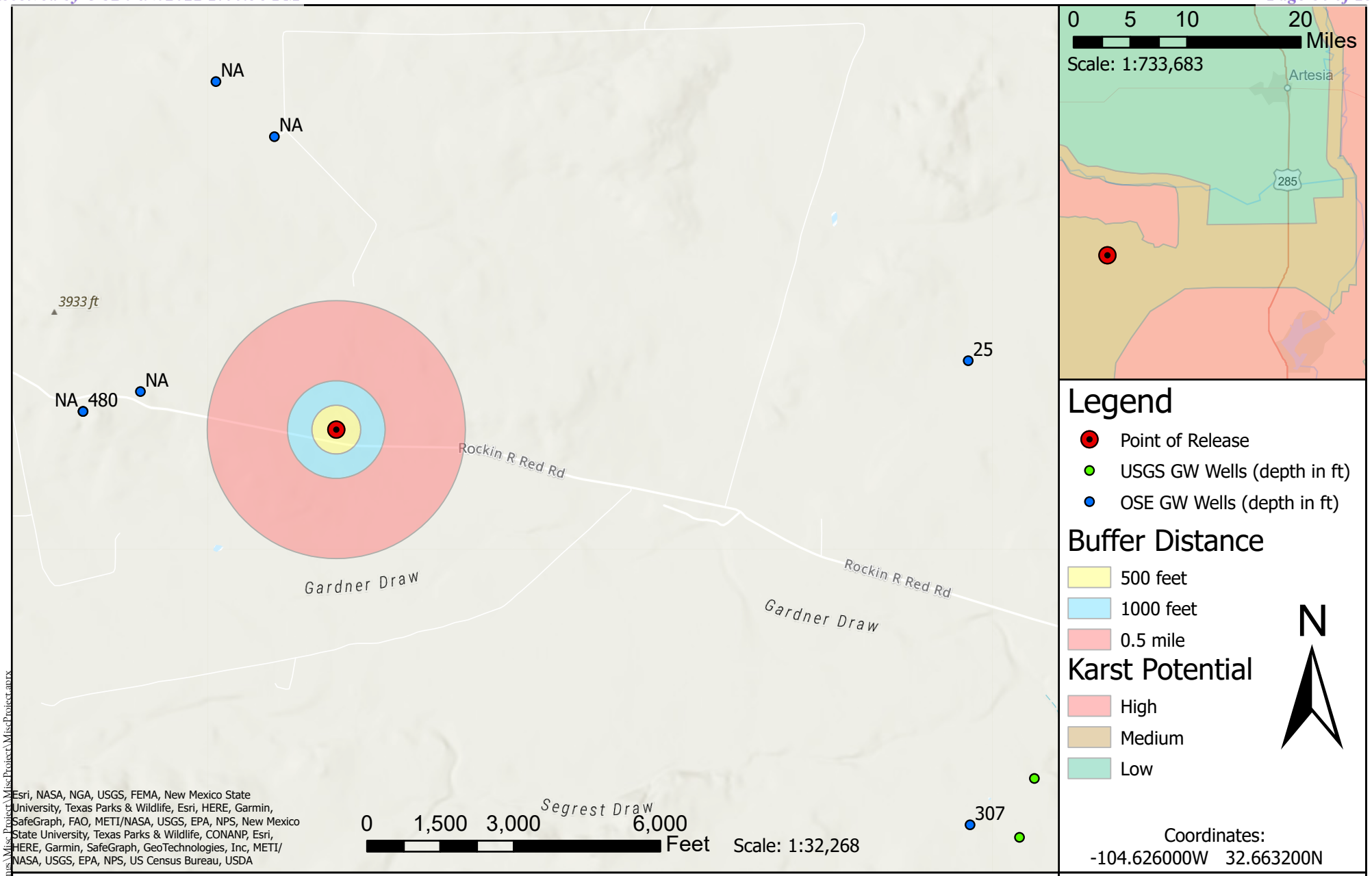
Easting (X): 535076.34 **Northing (Y):** 3614007.63 **Radius:** 2500

***UTM location was derived from PLSS - see Help**

5/25/22 5:42 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

FIGURES



Site Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 1

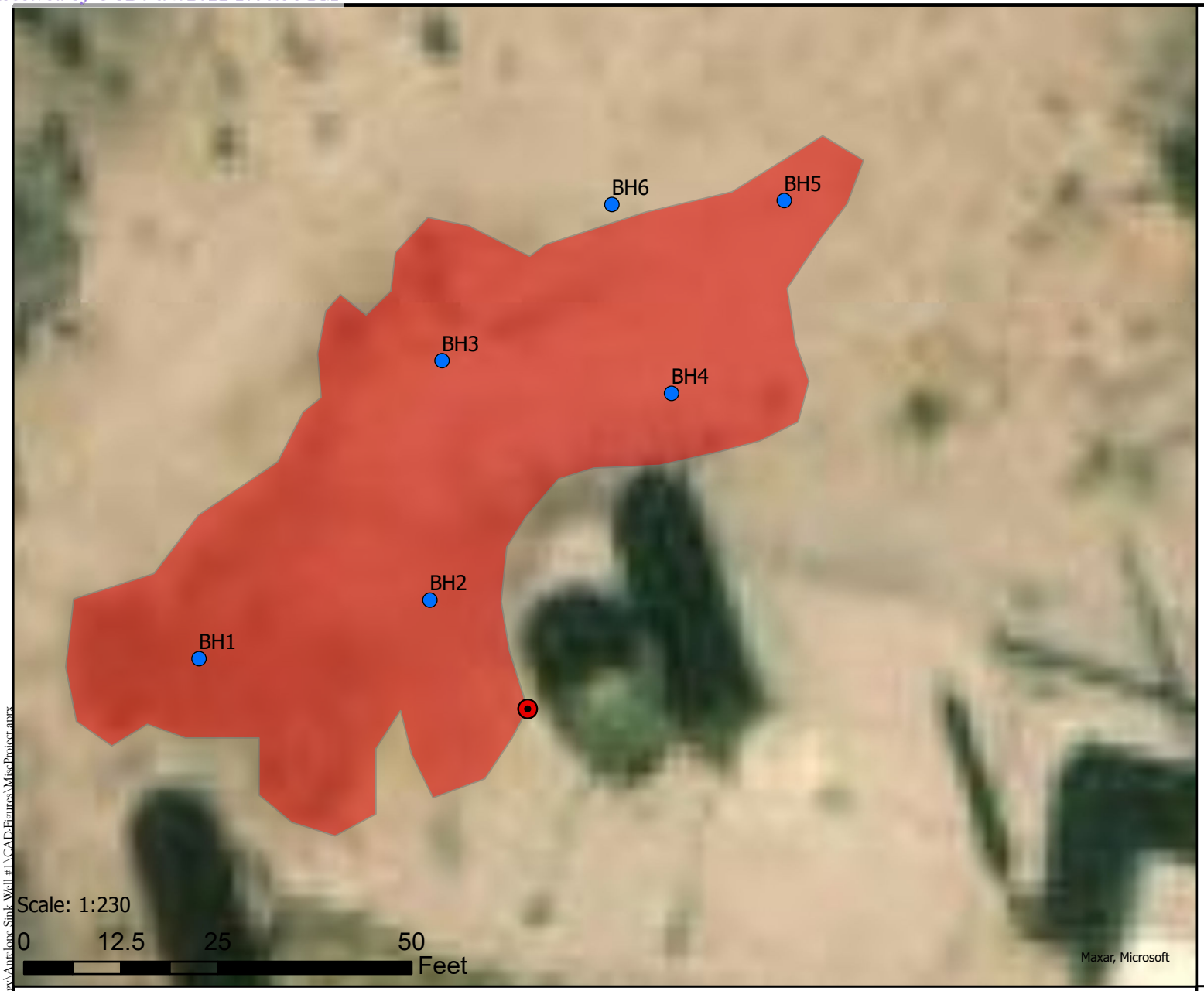
C:\Users\ss\Desktop\GIS\Lynn's things\Misc Project\Misc Project.aprx
Date Saved: 5/26/2022

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

Drawn Sarahmay Schlea
Date 5/26/2022
Checked _____
Approved _____

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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



Legend

- Point of Release
- Boreholes

Boundaries

- Release Area

N

Coordinates:
-104.626000W 32.663200N

Site and Sample Location Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 3

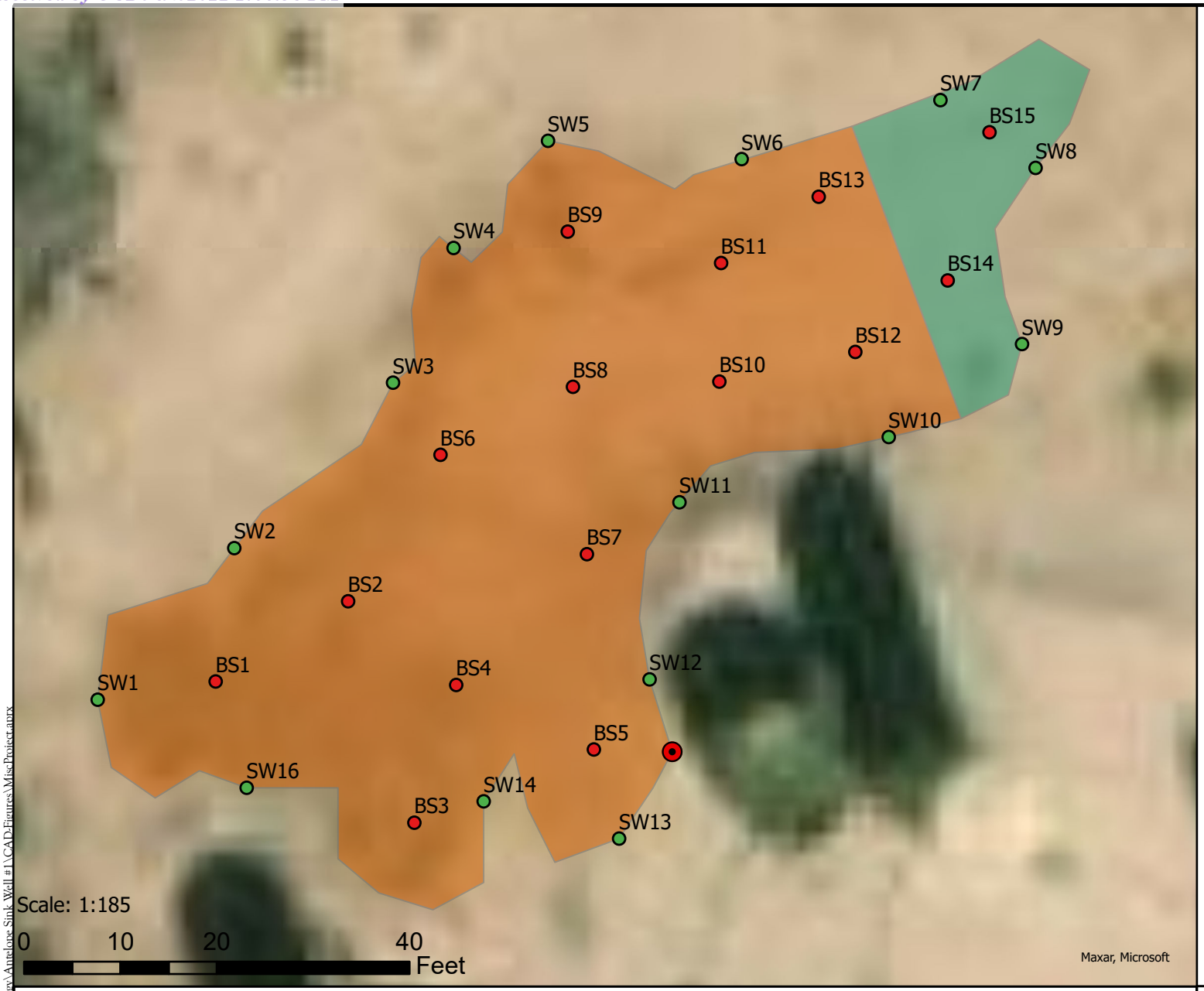
Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Sarahmay Schlea
Date 6/5/2022
Checked
Approved

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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

C:\Users\lara\Desktop\Falconer Energy\Antelope Sink Well #1\CAD Figures\Misc Project.aprx
Date Saved: 5/26/2022



Legend

Point of Release

Sample Locations

BS Proposed

SW Proposed

Boundary Type

2' Excavation

6' Excavation

N

Coordinates:
-104.626000W 32.663200N

Confirmation Sample Location Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 3A

C:\Users\lara\Desktop\Falconer Energy\Antelope Sink Well #1\CAD\Figures\MiscProject.aprx
Date Saved: 6/5/2022

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

Drawn Sarahmay Schlea
Date 6/5/2022
Checked
Approved

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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

APPENDIX D

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 06, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: Antelope Well 1 OrderNo.: 2203F71

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 12 sample(s) on 3/30/2022 for the analyses presented in the following report.

This report is a revised report and it replaces the original report issued April 11, 2022.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. 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. All samples are reported as received unless otherwise indicated.

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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

CLIENT: Souder, Miller & Associates
Project: Antelope Well 1
Lab ID: 2203F71-001 **Matrix:** SOIL

Client Sample ID: BH1-Surface
Collection Date: 3/29/2022 8:15:00 AM
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	19000	1500		mg/Kg	500	4/6/2022 6:23:51 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/1/2022 11:37:03 PM	66523
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/1/2022 11:37:03 PM	66523
Surr: DNOP	75.6	51.1-141		%Rec	1	4/1/2022 11:37:03 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Surr: BFB	101	37.7-212		%Rec	1	4/1/2022 10:49:00 PM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Toluene	ND	0.049		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Xylenes, Total	ND	0.099		mg/Kg	1	4/1/2022 10:49:00 PM	66508
Surr: 4-Bromofluorobenzene	85.4	70-130		%Rec	1	4/1/2022 10:49:00 PM	66508

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:17:00 AM
Lab ID: 2203F71-002 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	27000	1500		mg/Kg	500	4/6/2022 6:36:16 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/2/2022 12:49:32 AM	66523
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/2/2022 12:49:32 AM	66523
Surr: DNOP	63.6	51.1-141		%Rec	1	4/2/2022 12:49:32 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Surr: BFB	104	37.7-212		%Rec	1	4/1/2022 11:48:00 PM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Toluene	ND	0.049		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Xylenes, Total	ND	0.098		mg/Kg	1	4/1/2022 11:48:00 PM	66508
Surr: 4-Bromofluorobenzene	87.0	70-130		%Rec	1	4/1/2022 11:48:00 PM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:20:00 AM
Lab ID: 2203F71-003 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	15000	1500		mg/Kg	500	4/6/2022 12:36:21 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	4/2/2022 1:13:35 AM	66523
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	4/2/2022 1:13:35 AM	66523
Surr: DNOP	87.6	51.1-141		%Rec	1	4/2/2022 1:13:35 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Surr: BFB	106	37.7-212		%Rec	1	4/2/2022 12:48:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Xylenes, Total	ND	0.098		mg/Kg	1	4/2/2022 12:48:00 AM	66508
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	4/2/2022 12:48:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:22:00 AM
Lab ID: 2203F71-004 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	6100	300		mg/Kg	100	4/6/2022 1:13:35 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/2/2022 1:37:40 AM	66523
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/2/2022 1:37:40 AM	66523
Surr: DNOP	101	51.1-141		%Rec	1	4/2/2022 1:37:40 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Surr: BFB	100	37.7-212		%Rec	1	4/2/2022 1:07:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Toluene	ND	0.050		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Ethylbenzene	ND	0.050		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Xylenes, Total	ND	0.10		mg/Kg	1	4/2/2022 1:07:00 AM	66508
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	4/2/2022 1:07:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:24:00 AM
Lab ID: 2203F71-005 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	4400	300		mg/Kg	100	4/6/2022 1:50:48 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/4/2022 6:35:20 PM	66523
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/4/2022 6:35:20 PM	66523
Surr: DNOP	71.4	51.1-141		%Rec	1	4/4/2022 6:35:20 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Surr: BFB	100	37.7-212		%Rec	1	4/2/2022 1:27:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2022 1:27:00 AM	66508
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	4/2/2022 1:27:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:26:00 AM
Lab ID: 2203F71-006 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	5700	300		mg/Kg	100	4/6/2022 2:03:13 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/2/2022 2:25:55 AM	66523
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/2/2022 2:25:55 AM	66523
Surr: DNOP	54.9	51.1-141		%Rec	1	4/2/2022 2:25:55 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Surr: BFB	105	37.7-212		%Rec	1	4/2/2022 1:47:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2022 1:47:00 AM	66508
Surr: 4-Bromofluorobenzene	87.1	70-130		%Rec	1	4/2/2022 1:47:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:30:00 AM
Lab ID: 2203F71-007 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	10000	600		mg/Kg	200	4/6/2022 2:40:28 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	370	90		mg/Kg	10	4/2/2022 2:49:50 AM	66523
Motor Oil Range Organics (MRO)	1000	450		mg/Kg	10	4/2/2022 2:49:50 AM	66523
Surr: DNOP	0	51.1-141	S	%Rec	10	4/2/2022 2:49:50 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Surr: BFB	105	37.7-212		%Rec	1	4/2/2022 2:07:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Xylenes, Total	ND	0.095		mg/Kg	1	4/2/2022 2:07:00 AM	66508
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	4/2/2022 2:07:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:32:00 AM
Lab ID: 2203F71-008 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	3900	150		mg/Kg	50	4/6/2022 2:52:52 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	110	9.8		mg/Kg	1	4/2/2022 3:13:58 AM	66523
Motor Oil Range Organics (MRO)	300	49		mg/Kg	1	4/2/2022 3:13:58 AM	66523
Surr: DNOP	80.0	51.1-141		%Rec	1	4/2/2022 3:13:58 AM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Surr: BFB	103	37.7-212		%Rec	1	4/2/2022 2:27:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Xylenes, Total	ND	0.097		mg/Kg	1	4/2/2022 2:27:00 AM	66508
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	1	4/2/2022 2:27:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:35:00 AM
Lab ID: 2203F71-009 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:05:17 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	240	100		mg/Kg	10	4/6/2022 11:30:29 AM	66650
Motor Oil Range Organics (MRO)	700	500		mg/Kg	10	4/6/2022 11:30:29 AM	66650
Surr: DNOP	0	51.1-141	S	%Rec	10	4/6/2022 11:30:29 AM	66650
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Surr: BFB	109	37.7-212		%Rec	1	4/2/2022 2:46:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Xylenes, Total	ND	0.095		mg/Kg	1	4/2/2022 2:46:00 AM	66508
Surr: 4-Bromofluorobenzene	86.9	70-130		%Rec	1	4/2/2022 2:46:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:37:00 AM
Lab ID: 2203F71-010 **Matrix:** SOIL
Received Date: 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:42:31 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	37	9.8		mg/Kg	1	4/4/2022 8:12:51 PM	66523
Motor Oil Range Organics (MRO)	140	49		mg/Kg	1	4/4/2022 8:12:51 PM	66523
Surr: DNOP	81.0	51.1-141		%Rec	1	4/4/2022 8:12:51 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Surr: BFB	102	37.7-212		%Rec	1	4/2/2022 3:06:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Toluene	ND	0.048		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Ethylbenzene	ND	0.048		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Xylenes, Total	ND	0.096		mg/Kg	1	4/2/2022 3:06:00 AM	66508
Surr: 4-Bromofluorobenzene	85.7	70-130		%Rec	1	4/2/2022 3:06:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH6-Surface
Project: Antelope Well 1
Collection Date: 3/29/2022 8:40:00 AM
Lab ID: 2203F71-011 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 3:54:55 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/4/2022 8:37:07 PM	66523
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2022 8:37:07 PM	66523
Surr: DNOP	97.1	51.1-141		%Rec	1	4/4/2022 8:37:07 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Surr: BFB	106	37.7-212		%Rec	1	4/2/2022 4:25:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.025		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Xylenes, Total	ND	0.099		mg/Kg	1	4/2/2022 4:25:00 AM	66508
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	4/2/2022 4:25:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2203F71**
Date Reported: **6/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH6-1'
Project: Antelope Well 1
Collection Date: 3/29/2022 8:42:00 AM
Lab ID: 2203F71-012 **Matrix:** SOIL **Received Date:** 3/30/2022 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2022 4:07:19 PM	66638
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/4/2022 9:01:24 PM	66523
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/4/2022 9:01:24 PM	66523
Surr: DNOP	80.1	51.1-141		%Rec	1	4/4/2022 9:01:24 PM	66523
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **CCM**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Surr: BFB	101	37.7-212		%Rec	1	4/2/2022 4:45:00 AM	66508
EPA METHOD 8021B: VOLATILES						Analyst: **CCM**	
Benzene	ND	0.024		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Toluene	ND	0.049		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Ethylbenzene	ND	0.049		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Xylenes, Total	ND	0.098		mg/Kg	1	4/2/2022 4:45:00 AM	66508
Surr: 4-Bromofluorobenzene	83.3	70-130		%Rec	1	4/2/2022 4:45:00 AM	66508

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **MB-66638**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **66638**	RunNo: **87038**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3077760** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66638**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **66638**	RunNo: **87038**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3077761** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.3	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **2203F71-001AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH1-Surface**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/2/2022**	SeqNo: **3072505** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	9.6	48.17	0	77.4	36.1	154			
Surr: DNOP	2.0		4.817		40.9	51.1	141			S

Sample ID: **2203F71-001AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH1-Surface**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/2/2022**	SeqNo: **3072506** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	44	9.7	48.64	0	90.3	36.1	154	16.3	33.9	
Surr: DNOP	1.9		4.864		39.7	51.1	141	0	0	S

Sample ID: **LCS-66523**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/1/2022**	SeqNo: **3072547** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	43	10	50.00	0	86.2	68.9	135			
Surr: DNOP	4.6		5.000		91.7	51.1	141			

Sample ID: **MB-66523**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66523**	RunNo: **86957**
Prep Date: **3/31/2022**	Analysis Date: **4/1/2022**	SeqNo: **3072549** Units: **mg/Kg**

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		104	51.1	141			

Sample ID: **MB-66650**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66650**	RunNo: **87033**
Prep Date: **4/5/2022**	Analysis Date: **4/6/2022**	SeqNo: **3075736** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.1	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **LCS-66650**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66650**	RunNo: **87033**
Prep Date: ***4/5/2022***	Analysis Date: ***4/6/2022***	SeqNo: **3075737** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	50.00	0	96.4	68.9	135			
Surr: DNOP	4.2		5.000		84.5	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **lcs-66508**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071525** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	112	72.3	137			
Surr: BFB	2200		1000		225	37.7	212			S

Sample ID: **mb-66508**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071526** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	37.7	212			

Sample ID: **2203F71-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH1-Surface**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071528** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.49	0	120	70	130			
Surr: BFB	2300		979.4		238	37.7	212			S

Sample ID: **2203F71-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH1-Surface**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071529** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	29	4.9	24.51	0	119	70	130	0.203	20	
Surr: BFB	2300		980.4		239	37.7	212	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2203F71**

06-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Well 1

Sample ID: **lcs-66508**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071497** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.3	80	120			
Toluene	0.90	0.050	1.000	0	89.9	80	120			
Ethylbenzene	0.91	0.050	1.000	0	90.6	80	120			
Xylenes, Total	2.7	0.10	3.000	0	90.4	80	120			
Surr: 4-Bromofluorobenzene	0.89		1.000		89.1	70	130			

Sample ID: **mb-66508**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/1/2022**	SeqNo: **3071498** Units: **mg/Kg**

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	0.87		1.000		87.3	70	130			

Sample ID: **2203F71-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH1-1'**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/2/2022**	SeqNo: **3071501** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.024	0.9737	0	88.9	68.8	120			
Toluene	0.89	0.049	0.9737	0	91.1	73.6	124			
Ethylbenzene	0.90	0.049	0.9737	0	92.4	72.7	129			
Xylenes, Total	2.7	0.097	2.921	0	92.4	75.7	126			
Surr: 4-Bromofluorobenzene	0.85		0.9737		87.1	70	130			

Sample ID: **2203F71-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH1-1'**	Batch ID: **66508**	RunNo: **86911**
Prep Date: **3/30/2022**	Analysis Date: **4/2/2022**	SeqNo: **3071502** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.024	0.9671	0	84.5	68.8	120	5.78	20	
Toluene	0.84	0.048	0.9671	0	86.8	73.6	124	5.51	20	
Ethylbenzene	0.85	0.048	0.9671	0	88.3	72.7	129	5.25	20	
Xylenes, Total	2.6	0.097	2.901	0	88.1	75.7	126	5.38	20	
Surr: 4-Bromofluorobenzene	0.84		0.9671		87.2	70	130	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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 & Associates

Work Order Number: 2203F71

RcptNo: 1

Received By: Juan Rojas 3/30/2022 9:15:00 AM

Completed By: Sean Livingston 3/30/2022 10:08:15 AM

Reviewed By: JN 3/30/22

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. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑

    # of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
    Adjusted? _____
    Checked by: TMC 3/30/22
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 ☐

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good				

Chain-of-Custody Record

Client: SMH - Carlsbad

Mailing Address:

Phone #:

email or Fax#: Lynn.Accola@Sawdermiller.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush 5 day TAT

Project Name: Antelope Well #2 1

Project #: per Ashley Maxwell

Project Manager: Lynn Accola (for 6/6/22)

Sampler: CAH

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.6-0.3=0.3 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2203171	(BTEX) / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/24/22	8:15	Soil	BH1 - Surface	4oz	ice	001	X	X					X			
	8:17		BH1 - 1'			002										
	8:20		BH2 - Surface			003										
	8:22		BH2 - 1'			004										
	8:24		BH3 - Surface			005										
	8:26		BH3 - 1'			006										
	8:30		BH4 - Surface			007										
	8:32		BH4 - 1'			008										
	8:35		BH5 - Surface			009										
	8:37		BH5 - 1'			010										
	8:40		BH6 - Surface			011										
	8:42		BH6 - 1'			012										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
3/24/22	1045				3/29/22	1045
3/29/22	1900				3/30/22	9:15

Remarks: Email Results: Lynn.Accola@Sawdermiller.com

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 12, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Antelope Sink Well 1 OrderNo.: 2204029

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/1/2022 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204029**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG1-Surface
Project: Antelope Sink Well 1
Collection Date: 3/30/2022
Lab ID: 2204029-001 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 10:54:22 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Surr: BFB	98.2	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/5/2022 4:01:59 PM	66611
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/5/2022 4:01:59 PM	66611
Surr: DNOP	82.4	51.1-141		%Rec	1	4/5/2022 4:01:59 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.024		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Toluene	ND	0.047		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Ethylbenzene	ND	0.047		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Xylenes, Total	ND	0.095		mg/Kg	1	4/5/2022 9:40:47 PM	66586
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
Surr: Dibromofluoromethane	105	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586
Surr: Toluene-d8	95.7	70-130		%Rec	1	4/5/2022 9:40:47 PM	66586

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204029**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** BG1-1'
Project: Antelope Sink Well 1 **Collection Date:** 3/30/2022
Lab ID: 2204029-002 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 11:06:42 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Surr: BFB	105	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/5/2022 4:26:18 PM	66611
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2022 4:26:18 PM	66611
Surr: DNOP	82.1	51.1-141		%Rec	1	4/5/2022 4:26:18 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.025		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Toluene	ND	0.050		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Ethylbenzene	ND	0.050		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Xylenes, Total	ND	0.099		mg/Kg	1	4/5/2022 10:09:24 PM	66586
Surr: 1,2-Dichloroethane-d4	105	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
Surr: 4-Bromofluorobenzene	94.2	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
Surr: Dibromofluoromethane	107	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586
Surr: Toluene-d8	99.1	70-130		%Rec	1	4/5/2022 10:09:24 PM	66586

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**

12-Apr-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **MB-66705**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **66705**	RunNo: **87092**							
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078859**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66705**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **66705**	RunNo: **87092**							
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078860**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.0	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **LCS-66611**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **66611**	RunNo: **87027**
Prep Date: **4/4/2022**	Analysis Date: **4/5/2022**	SeqNo: **3075308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	68.9	135			
Surr: DNOP	5.1		5.000		102	51.1	141			

Sample ID: **MB-66611**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **66611**	RunNo: **87027**
Prep Date: **4/4/2022**	Analysis Date: **4/5/2022**	SeqNo: **3075310** Units: **mg/Kg**

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	9.4		10.00		93.7	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078655** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.7	70	130			
Toluene	0.97	0.050	1.000	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.5	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.0	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078657** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.48		0.5000		95.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.2	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.7	70	130			
Surr: Toluene-d8	0.51		0.5000		101	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204029**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Souder, Miller & Associates

Work Order Number: 2204029

RcptNo: 1

Received By: Tracy Casarrubias 4/1/2022 9:50:00 AM

Completed By: Cheyenne Cason 4/1/2022 10:26:46 AM

Reviewed By: IO 4/1/22

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. 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 ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
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 ☐	Checked by: KPL 4/1/22

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day TAT

Project Name: Antelope Sink well #1

Project #:

Project Manager: Lynn Acosta

Sampler: LAA

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.8 - 0.1 = 3.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204029	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/31/22		Soil	BG1 - Surface	4oz	Ice	001	X	X					X			
"		"	BG1 - 1'	"	"	002	X	X					X			

Date	Time	Relinquished by	Received by	Via	Date	Time
3/31/22	830				3/31/22	830
3/31/22	1900				4/1/22	9:50

Remarks:
email: Lynn.acosta@cardermiller.com

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 12, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-8801
FAX

RE: Antelope Sink Well 1 OrderNo.: 2204030

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 2 sample(s) on 4/1/2022 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2204030**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG2-Surface
Project: Antelope Sink Well 1
Collection Date: 3/30/2022
Lab ID: 2204030-001 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 11:19:02 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Surr: BFB	103	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/5/2022 4:51:03 PM	66611
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/5/2022 4:51:03 PM	66611
Surr: DNOP	73.8	51.1-141		%Rec	1	4/5/2022 4:51:03 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.024		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Toluene	ND	0.048		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Ethylbenzene	ND	0.048		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Xylenes, Total	ND	0.096		mg/Kg	1	4/6/2022 12:32:47 AM	66586
Surr: 1,2-Dichloroethane-d4	106	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
Surr: 4-Bromofluorobenzene	96.0	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
Surr: Dibromofluoromethane	108	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586
Surr: Toluene-d8	99.2	70-130		%Rec	1	4/6/2022 12:32:47 AM	66586

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2204030**
Date Reported: **4/12/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BG2-1'
Project: Antelope Sink Well 1
Collection Date: 3/30/2022
Lab ID: 2204030-002 **Matrix:** SOIL **Received Date:** 4/1/2022 9:50:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	4/7/2022 11:56:05 PM	66705
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JR**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Surr: BFB	102	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/5/2022 5:15:19 PM	66611
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/5/2022 5:15:19 PM	66611
Surr: DNOP	92.0	51.1-141		%Rec	1	4/5/2022 5:15:19 PM	66611
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JR**	
Benzene	ND	0.024		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Toluene	ND	0.047		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Ethylbenzene	ND	0.047		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Xylenes, Total	ND	0.095		mg/Kg	1	4/6/2022 1:01:30 AM	66586
Surr: 1,2-Dichloroethane-d4	103	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
Surr: 4-Bromofluorobenzene	98.2	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
Surr: Dibromofluoromethane	104	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586
Surr: Toluene-d8	95.2	70-130		%Rec	1	4/6/2022 1:01:30 AM	66586

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **MB-66705**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **66705**	RunNo: **87092**							
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078859**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-66705**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **66705**	RunNo: **87092**							
Prep Date: **4/7/2022**	Analysis Date: **4/7/2022**	SeqNo: **3078860**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.0	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **LCS-66611** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **66611** RunNo: **87027**
Prep Date: **4/4/2022** Analysis Date: **4/5/2022** SeqNo: **3075308** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	10	50.00	0	99.3	68.9	135			
Surr: DNOP	5.1		5.000		102	51.1	141			

Sample ID: **MB-66611** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **66611** RunNo: **87027**
Prep Date: **4/4/2022** Analysis Date: **4/5/2022** SeqNo: **3075310** Units: **mg/Kg**

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	9.4		10.00		93.7	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**
12-Apr-22

Client: Souder, Miller & Associates
Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078655** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.89	0.025	1.000	0	88.7	70	130			
Toluene	0.97	0.050	1.000	0	96.6	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.5	70	130			
Surr: Dibromofluoromethane	0.46		0.5000		92.0	70	130			
Surr: Toluene-d8	0.51		0.5000		103	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3078657** Units: **mg/Kg**

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: 1,2-Dichloroethane-d4	0.48		0.5000		95.5	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.2	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		95.7	70	130			
Surr: Toluene-d8	0.51		0.5000		101	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2204030**

12-Apr-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **lcs-66586**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073267** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	110	70	130			
Surr: BFB	510		500.0		102	70	130			

Sample ID: **mb-66586**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS**	Batch ID: **66586**	RunNo: **86972**
Prep Date: **4/1/2022**	Analysis Date: **4/4/2022**	SeqNo: **3073268** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	510		500.0		102	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Souder, Miller & Associates

Work Order Number: 2204030

RcptNo: 1

Received By: Tracy Casarrubias 4/1/2022 9:50:00 AM

Completed By: Cheyenne Cason 4/1/2022 10:30:33 AM

Reviewed By: IO 4/1/22

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. 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: KPG 4/1/22

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	3.7	Good	Not Present			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#: Lynn.acosta@swdenmiller.com

QA/QC Package:
☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5 day TAT

Project Name: Antelope Sink well #1

Project #:

Project Manager: Lynn Acosta

Sampler: LHA

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 3.8 - 0.1 = 3.7 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87109
Tel. 505-345-3975 Fax 505-345-4107

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2204030	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl, F, Br, NO_3, NO_2, PO_4, SO_4)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
3/31/22		Soil	BG2-Surface	4oz	Ice	001	X	X					X			
			BG2-1'			002	X	X					X			

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time	Remarks:
3/31/22	830				3/31/22	830	
3/31/22	1900				4/1/22	9:50	

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

June 02, 2022

Lynn A. Acosta
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX

RE: Antelope Sink Well 1 OrderNo.: 2205A33

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 10 sample(s) on 5/24/2022 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 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,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-001 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	6500	300		mg/Kg	100	5/27/2022 8:34:07 PM	67733

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-6'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-002 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	59		mg/Kg	20	5/26/2022 11:22:17 PM	67733

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-003 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	4600	150		mg/Kg	50	5/27/2022 8:46:31 PM	67733

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-5'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-004 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	5/27/2022 8:58:56 PM	67759

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-005 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2400	150		mg/Kg	50	5/31/2022 9:50:38 AM	67759

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-5'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-006 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	5/27/2022 9:23:45 PM	67759

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-007 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2400	150		mg/Kg	50	5/31/2022 10:03:03 AM	67759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	5/25/2022 12:06:40 PM	67670
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/25/2022 12:06:40 PM	67670
Surr: DNOP	103	51.1-141		%Rec	1	5/25/2022 12:06:40 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/26/2022 9:51:13 AM	67661
Surr: BFB	92.6	37.7-212		%Rec	1	5/26/2022 9:51:13 AM	67661

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

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH4-6'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-008 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **NAI**	
Chloride	ND	60		mg/Kg	20	5/27/2022 9:48:35 PM	67759
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	5/25/2022 12:17:25 PM	67670
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/25/2022 12:17:25 PM	67670
Surr: DNOP	72.6	51.1-141		%Rec	1	5/25/2022 12:17:25 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/26/2022 10:14:54 AM	67661
Surr: BFB	94.1	37.7-212		%Rec	1	5/26/2022 10:14:54 AM	67661

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-2'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-009 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/25/2022 12:28:14 PM	67670
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/25/2022 12:28:14 PM	67670
Surr: DNOP	78.9	51.1-141		%Rec	1	5/25/2022 12:28:14 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/26/2022 10:38:23 AM	67661
Surr: BFB	91.9	37.7-212		%Rec	1	5/26/2022 10:38:23 AM	67661

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

Analytical Report
Lab Order **2205A33**
Date Reported: **6/2/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH5-3'
Project: Antelope Sink Well 1
Collection Date: 5/20/2022
Lab ID: 2205A33-010 **Matrix:** SOIL **Received Date:** 5/24/2022 7:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **SB**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	5/25/2022 12:39:00 PM	67670
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/25/2022 12:39:00 PM	67670
Surr: DNOP	99.3	51.1-141		%Rec	1	5/25/2022 12:39:00 PM	67670
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/26/2022 11:01:56 AM	67661
Surr: BFB	90.7	37.7-212		%Rec	1	5/26/2022 11:01:56 AM	67661

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	Estimated value
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 Quanitative Limit	RL	Reporting Limit
S	% Recovery outside of range due to dilution or matrix interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205A33**

02-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **LCS-67733**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **67733**	RunNo: **88302**
Prep Date: **5/26/2022**	Analysis Date: **5/26/2022**	SeqNo: **3132780** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.7	90	110			

Sample ID: **MB-67759**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **67759**	RunNo: **88373**
Prep Date: **5/27/2022**	Analysis Date: **5/27/2022**	SeqNo: **3134723** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-67759**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **67759**	RunNo: **88373**
Prep Date: **5/27/2022**	Analysis Date: **5/27/2022**	SeqNo: **3134724** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.7	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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205A33**

02-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **LCS-67667**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67667**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129962** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	6.2		5.000		124	51.1	141			

Sample ID: **LCS-67670**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **67670**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129963** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	10	50.00	0	115	64.4	127			
Surr: DNOP	6.5		5.000		129	51.1	141			

Sample ID: **MB-67667**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67667**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129964** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.3		10.00		93.2	51.1	141			

Sample ID: **MB-67670**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **67670**	RunNo: **88262**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3129965** Units: **mg/Kg**

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	9.7		10.00		96.8	51.1	141			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2205A33**

02-Jun-22

Client: Souder, Miller & Associates

Project: Antelope Sink Well 1

Sample ID: **mb-67661**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **67661**	RunNo: **88270**
Prep Date: **5/24/2022**	Analysis Date: **5/26/2022**	SeqNo: **3130075** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	900		1000		90.3	37.7	212			

Sample ID: **lcs-67661**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **67661**	RunNo: **88270**
Prep Date: **5/24/2022**	Analysis Date: **5/25/2022**	SeqNo: **3130076** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	111	72.3	137			
Surr: BFB	2100		1000		205	37.7	212			

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 Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: Souder, Miller & Associates | Work Order Number: 2205A33 | RcptNo: 1

Received By: Juan Rojas 5/24/2022 7:00:00 AM

Completed By: Tracy Casarrubias 5/24/2022 7:59:26 AM

Reviewed By: KPG 5.24.22

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. 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: JM 5/24/22

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 °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.4	Good	Not Present			

Chain-of-Custody Record

Client: SMA - Carlsbad

Mailing Address:

Phone #:

email or Fax#:

QA/QC Package:

☐ Standard ☐ Level 4 (Full Validation)

Accreditation: ☐ Az Compliance

☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:

☐ Standard ☑ Rush 5 day TAT

Project Name: Antelope Sink Well #1

Project #:

Project Manager: Lynn Acosta

Sampler: LAA1

On Ice: ☐ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 0.4-0=0.4 (°C)

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2205A83	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	(Cl, F, Br, NO_3, NO_2, PO_4, SO_4)	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
5/24/22		soil	BH1 - 3'	4oz	ICE	001							X			
			BH1 - 6'			002							X			
			BH2 - 3'			003							X			
			BH2 - 5'			004							X			
			BH3 - 3'			005							X			
			BH3 - 5'			006							X			
			BH4 - 3'			007		X					X			
			BH4 - 6'			008		X					X			
			BH5 - 2'			009		X								
			BH5 - 3'			010		X								

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/24/22	1100				5/25/22	1100
5/24/22	1900			courier	5/24/22	7:50

Remarks:

Direct Bill: Falconer Energy

KCharles@Faulenergy.com

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.

Souder, Miller & Associates♦201 S. Halagueno St.♦Carlsbad, NM 88220

June 6, 2022

#5E31368

NMOCD District 2
811 S. First St
Aztec, New Mexico 88220

SUBJECT: Remediation Plan for the Antelope Sink #1 Release (nAPP2205926232), Eddy County, New Mexico

To Whom It May Concern

On behalf of FE-NM, LLC, Souder, Miller & Associates (SMA) has prepared this Remediation Plan that describes the delineation and proposed remediation for a release of liquids related to oil and gas production activities at the Antelope Sink Unit #001 site. The site is in Unit G, Section 18, Township 19S, Range 24E, Eddy County, New Mexico, on State 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	Antelope Sink Unit #001	Company	FE-NM
API Number	30-015-10041	Location	32.66316, -104.62593
Tracking Number	NAPP2205926232		
Estimated Date of Release	2/17/2022	Date Reported to NMOCD	2/18/2022
Land Owner	New Mexico State Land	Reported To	NMOCD
Source of Release	Valve froze which caused the incident		
Released Volume	21 BBL	Released Material	Produced Water
Recovered Volume	0 BBL	Net Release	21 BBL
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	March 30, 2022 and May 20, 2022		

1.0 Background

On February 17, 2022, a release was discovered at the Antelope sink #1 site due to a frozen valve. Initial response activities were conducted by operator, and included source elimination, containment, and site stabilization activities. Figure 1 illustrates the vicinity and site location, Figures 2 and 3 illustrate the release location. The release notification form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Antelope Sink Unit #001 is an active production facility located approximately 18 miles southwest of Artesia, New Mexico on State land at an elevation of approximately 3823 feet above mean sea level (amsl).

Depth to Groundwater
Based upon New Mexico Office of the State Engineer (Appendix B), depth to groundwater in the area is estimated to be an average of 382 feet below grade surface (bgs). The minimum depth is 285 feet bgs and the maximum is 480 bgs.

Wellhead Protection Area
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.

Distance to Nearest Significant Watercourse
The nearest significant watercourse is an unnamed tributary of the Fourmile Draw, located approximately 2,554 feet.

Antelope Sink Unit #001 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. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area. The site is not considered an “exploration, development, production or storage site” and therefore the top four feet must be remediated to the most stringent standards. Additionally, the release area did not occur on land considered “in-use”, as outlined by 19.15.29.13.D NMAC. Therefore, the release area shall be reclaimed within the upper four feet to meet the standards of 19.15.29.13.D(1).

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs in addition to the requirements of reclamation for the upper four feet of impacted soil.

3.0 Release Characterization Activities and Findings

On March 30, 2022 and May 20, 2022, SMA personnel performed site delineation activities at the Antelope Sink Unit #001 site. SMA collected soil samples around the release site and throughout the visibly stained area. The area of visual impact was located entirely outside the boundary of any production or storage facilities.

Soil samples were field-screened for chloride using an electrical conductivity (EC) meter.

A total of six (6) borehole locations (BH1-BH6) were investigated using excavated test pits, to depths up to six (6) feet bgs. A minimum of two samples were collected at each sampling location and field-screened using the method above. A total of twenty-six (26) samples 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.

4.0 Proposed Soil Remediation Work Plan

SMA proposes excavation and removal of contaminated soil. The impacted area will be excavated to approximately two (2) to six (6) feet bgs. SMA will guide the excavation by collecting soil samples for field screening for chloride using an EC meter.

The release area will be excavated to the NMOCD Closure Criteria as demonstrated in the attached Table 2. Confirmation samples will be comprised of representative wall and base 5-point composite samples, each representing less than 200 ft^2 of exposed excavation (Figure 3A). The confirmation samples will be collected from within the excavation in accordance with the sampling protocol included in Appendix C.

Approximately 575 cubic yards of contaminated soil is projected to be removed and replaced with clean backfill material in order to return the surface to previous contours. The contaminated soil will be transported for disposal at R360 Environmental Solutions near Hobbs, NM, an NMOCD-permitted disposal facility. Upon approval by NMOCD, the projected timeline for completion of remediation activities is approximately 90 Days days following approval.

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 SMA Project Manager, Lynn A. Acosta, at 505516-7469.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Lynn A. Acosta

Lynn A. Acosta
Staff Scientist

Reviewed by:

Ashley Maxwell
Senior Scientist

REFERENCES:

New Mexico Office of the State Engineer (NMOSE) online water well database
https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 6/5/2022

ATTACHMENTS:

Figures:

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

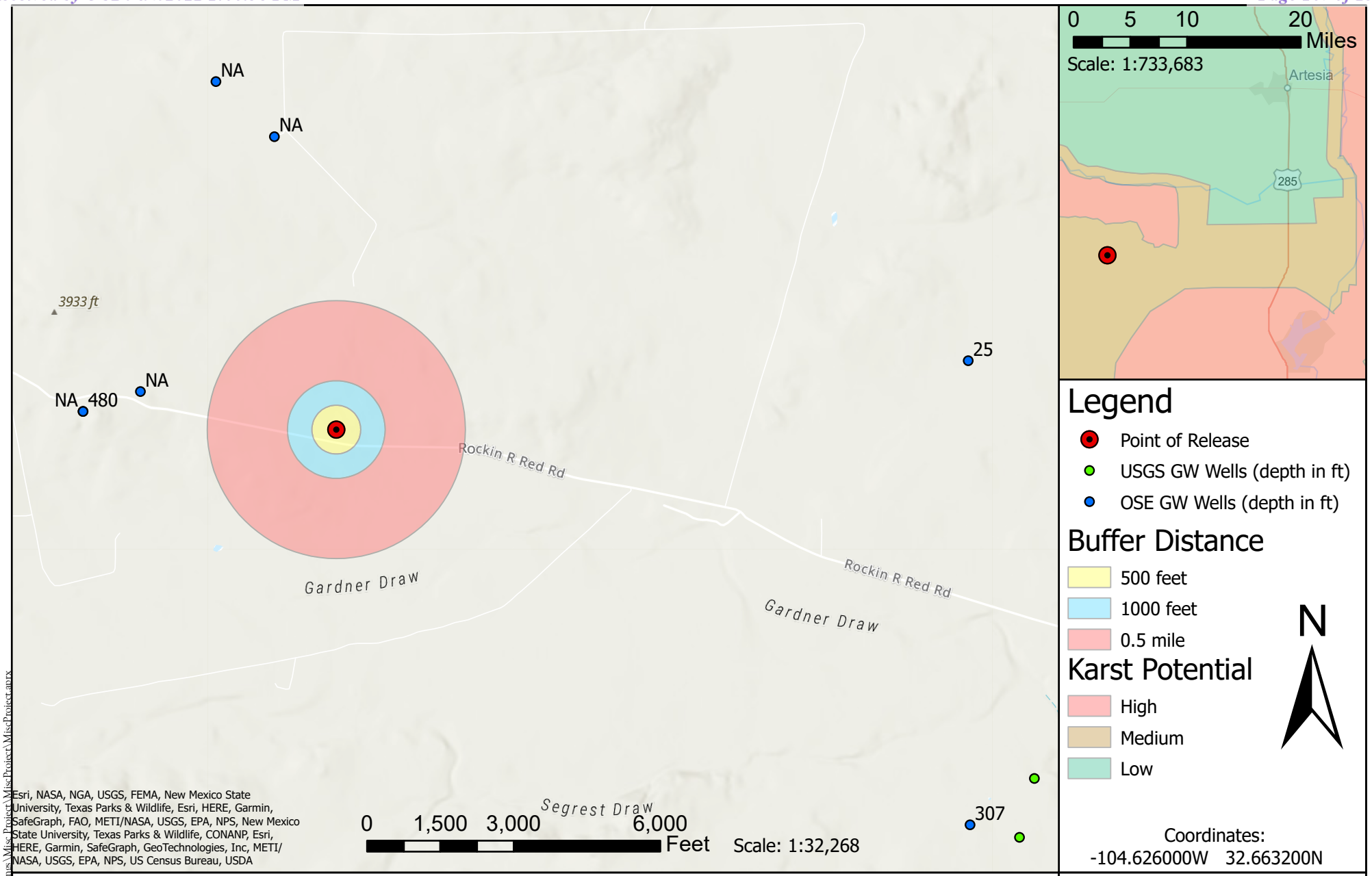
Tables:

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

Appendices:

Appendix A: Release Notification
Appendix B: NMOSE Wells Report
Appendix C: Sampling Protocol
Appendix D: Laboratory Analytical Reports

FIGURES



Site Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 1

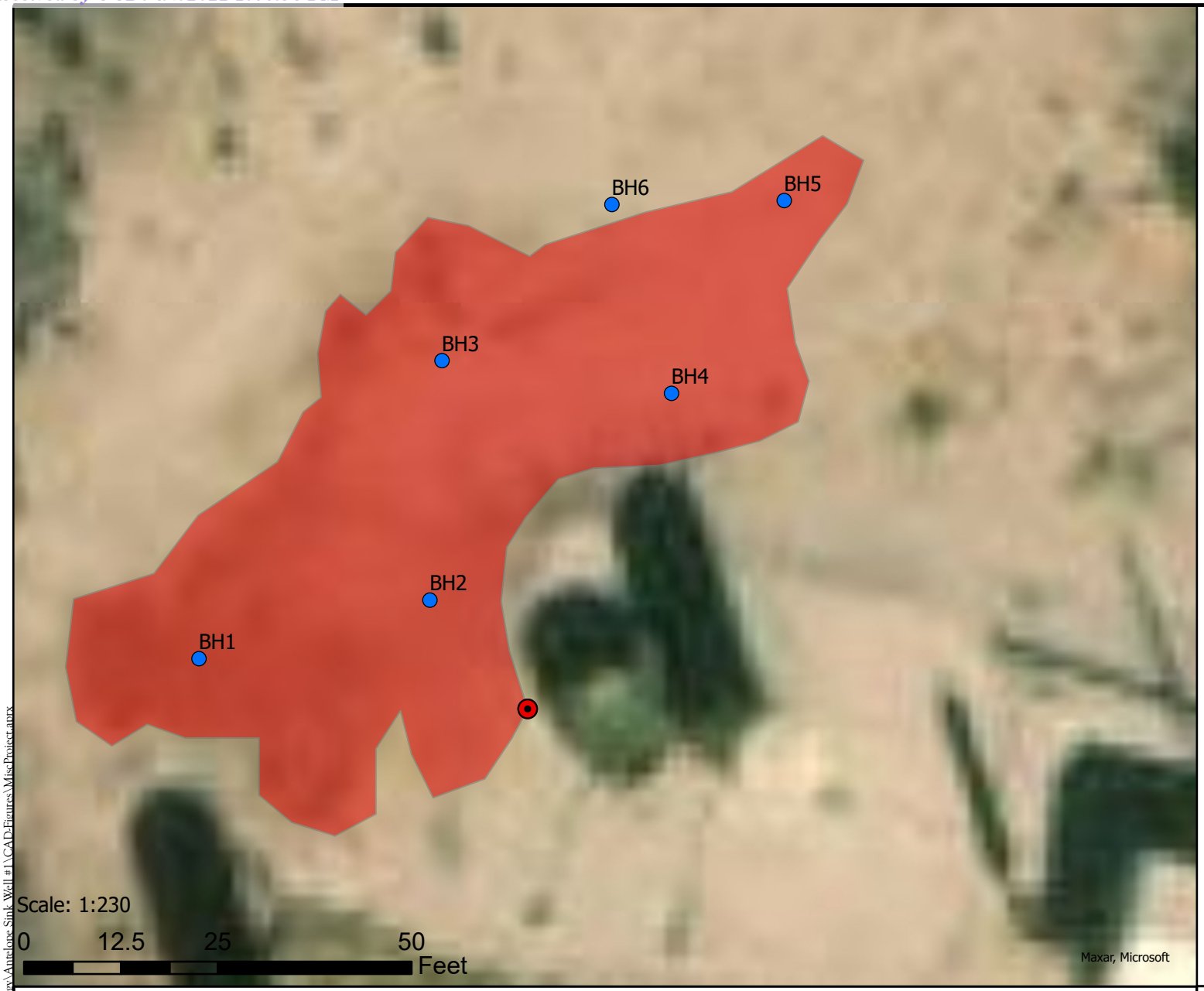
C:\Users\ss\Desktop\GIS\Lynn's things\Misc Project\Misc Project.aprx
Date Saved: 5/26/2022

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

Drawn Sarahmay Schlea
Date 5/26/2022
Checked _____
Approved _____

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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



Legend

- Point of Release
- Boreholes

Boundaries

- Release Area

N

Coordinates:
-104.626000W 32.663200N

Site and Sample Location Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 3

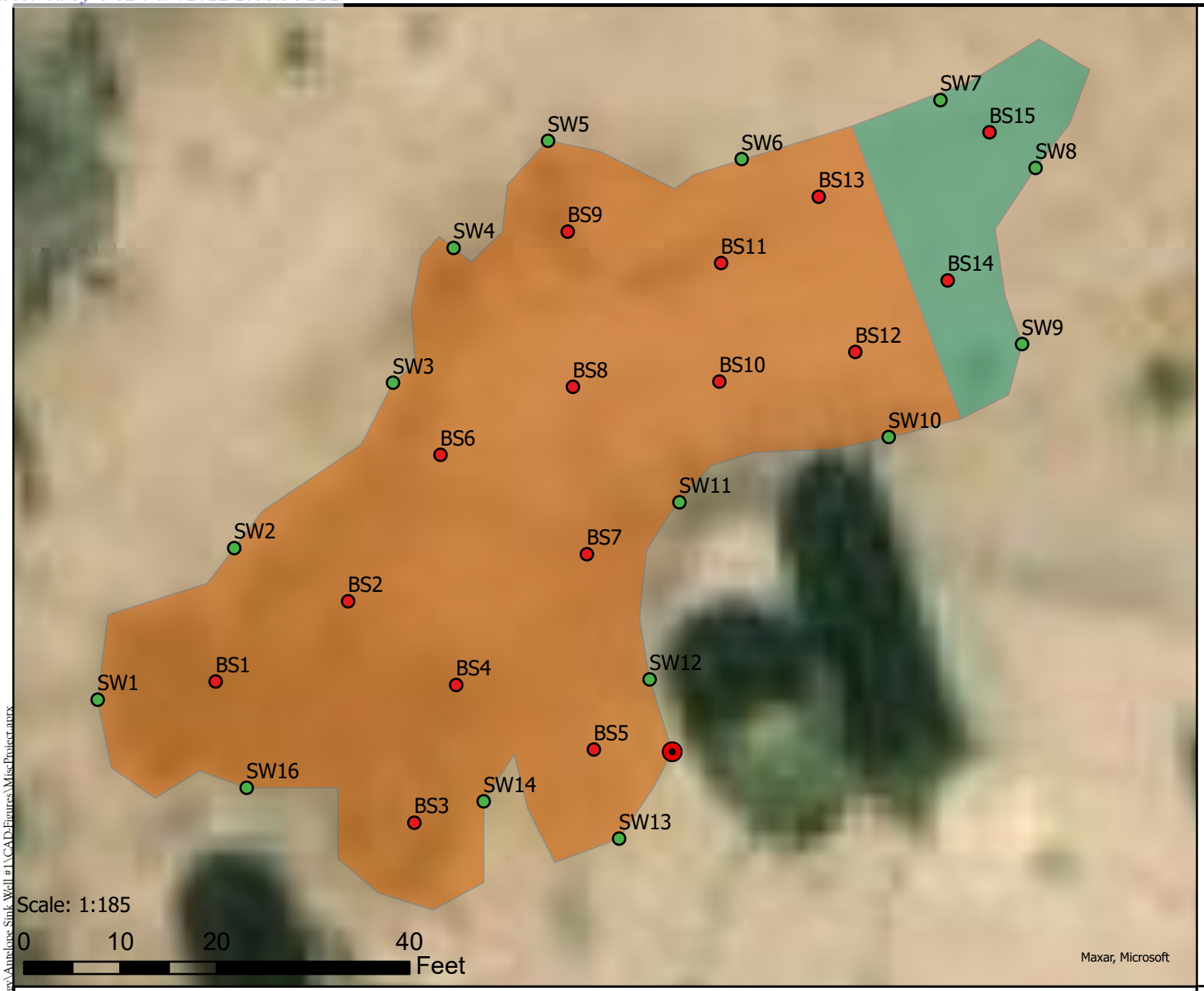
Revisions
By: Date: Descr:
By: Date: Descr:

Drawn Sarahmay Schlea
Date 6/5/2022
Checked
Approved

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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

C:\Users\lara\Desktop\Falconer Energy\Antelope Sink Well #1\CAD Figures\Misc Project.aprx
Date Saved: 5/26/2022



Legend

Point of Release

Sample Locations

BS Proposed

SW Proposed

Boundary Type

2' Excavation

6' Excavation

N

Coordinates:
-104.626000W 32.663200N

Confirmation Sample Location Map
Antelope Sink #1 - FE-NM, LLC
S: 18 T: 19S R: 24E, Eddy County, New Mexico

Figure 3A

C:\Users\klar\Desktop\Falconer Energy\Antelope Sink Well #1\CAD\Figures\MiscProject.aprx
Date Saved: 6/5/2022

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

Drawn Sarahmay Schlea
Date 6/5/2022
Checked
Approved

SMA
Souder, Miller & Associates
Engineering • Environmental
Geomatics

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

TABLES

Table 2:
NMOCD Closure Criteria

FE-NM, LLC
Antelope Sink Unit #001

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	285	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	None	United States Geological Survey
Hortizontal Distance to Nearest Significant Watercourse (ft)	2554	Unnamed tributary of the Fourmile Draw

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	X	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?	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(Med.Risk)					
within a 100-year floodplain?	No					

SMA #

Table 3:
Summary of Sample Results

FE-NM, LLC
Antelope Sink Well #1

Sample ID	Sample Date	Depth of Sample (feet bgs)	Action Taken	Method 8021B		Method 8015D				Method 300.0
				BTEX	Benzene	GRO	DRO	MRO	Total TPH	Cl-
				mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
NMOCD Closure Criteria				50	10	-			100	600
BG1	3/30/2022	Surface	In-Situ	<0.213	<0.024	<4.7	<9.6	<48	<62.3	<60
	3/30/2022	1'	In-Situ	<0.224	<0.025	<5.0	<9.3	<47	<61.3	<60
BG2	3/30/2022	Surface	In-Situ	<0.216	<0.024	<4.8	<10	<50	<64.8	<60
	3/30/2022	1'	In-Situ	<0.213	<0.024	<4.7	<9.5	<47	<61.2	<60
BH1	3/30/2022	Surface	Excavate	<0.222	<0.025	<4.9	<9.5	<47	<61.4	19000
	3/30/2022	1		<0.221	<0.025	<4.9	<9.6	<48	<62.5	27000
	5/20/2022	3		-	-	-	-	-	-	6500
	5/20/2022	6	In-Situ	-	-	-	-	-	-	<60
BH2	3/30/2022	Surface	Excavate	<0.220	<0.024	<4.9	<8.5	<43	<56.4	15000
	3/30/2022	1		<0.225	<0.025	<5.0	<10	<50	<65	6100
	5/20/2022	3		-	-	-	-	-	-	4600
	5/20/2022	5	In-Situ	-	-	-	-	-	-	<60
BH3	3/30/2022	Surface	Excavate	<0.217	<0.024	<4.8	<9.3	<47	<61.1	4400
	3/30/2022	1		<0.219	<0.024	<4.9	<9.8	<49	<63.7	5700
	5/20/2022	3		-	-	-	-	-	-	2400
	5/20/2020	5	In-Situ	-	-	-	-	-	-	<60
BH4	3/30/2022	Surface	Excavate	<0.215	<0.024	<4.8	370	1000	1370	10000
	3/30/2022	1		<0.219	<0.024	<4.9	110	300	410	3900
	5/20/2022	3		-	-	<4.8	<9.3	<46	<60.1	2400
	5/20/2022	6	In-Situ	-	-	<4.8	<9.2	<46	<60.1	<60
BH5	3/30/2022	Surface	Excavate	<0.215	<0.024	<4.8	240	700	940	<60
	3/30/2022	1		<0.216	<0.024	<4.8	37	140	177	<60
	5/20/2022	2	In-Situ	-	-	<5.0	<9.7	<48	<62.7	-
	5/20/2022	3	In-Situ	-	-	<4.9	<9.7	<49	<63.6	-
BH6	3/30/2022	Surface	In-Situ	<0.222	<0.025	<4.9	<9.7	<48	<62.6	<60
	3/30/2022	1	In-Situ	<0.220	<0.024	<4.9	<9.5	<48	<62.4	<60

"-" = Not Analyzed
BG: Background sample

SMA #

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 114510

COMMENTS

Operator: FE-NM, LLC 1001 E SE Loop 323, STE. 160 Tyler, TX 75711	OGRID: 331102
	Action Number: 114510
	Action Type: [C-141] Release Corrective Action (C-141)

COMMENTS

Created By	Comment	Comment Date
jharimon	Missing initial C-141	6/7/2022

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

Operator: FE-NM, LLC 1001 E SE Loop 323, STE. 160 Tyler, TX 75711	OGRID: 331102
	Action Number: 114510
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	The release will need to be remediated to the strictest closure criteria standards due to no known water sources within ½-mile of the location. All off pad areas or land considered “no longer in use” must contain a minimum of 4 feet non-waste containing uncontaminated, earthen material with chloride concentrations less than 600 mg/kg and less than 100 mg/kg for TPH. Floor samples must be excavated to the strictest closure criteria. Sidewall samples should be delineated/excavated to 600 mg/kg for chlorides and 100 mg/kg for TPH to define the edge of the release. Please collect confirmation samples (floor/sidewall), representing no more than 200 ft2. All samples must be analyzed for all constituents listed in Table I of 19.15.29.12 NMAC. A closure report will need to be completed and uploaded within 90 days.	10/13/2022