Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011449161
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?	260 (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.

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State of New Mexico
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I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: Dale Woodall Title: Env Professional

Signature: Dale Woodall Date: 1/11/2023

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: Jocelyn Harimon Date: 1/11/2023

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011449161
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Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Dale Woodall Title: Env. Professional

Signature: Dale Woodall Date: 1/11/2023

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: Jocelyn Harimon Date: 1/11/2023

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

Closure Approved by: _____ Date: _____

Printed Name: _____ Title: _____

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

October 19, 2020

#5E29133 BG-18

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

SUBJECT: Remediation Closure Report for the Rattlesnake 13-12 Fed #001H Release (30-025-40912), Lea, New Mexico

To Whom it May Concern:

On behalf of Devon Energy Production Company (Devon), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the Rattlesnake 13-12 Fed #001H site. The site is in Unit P, Section 13, Township 26S Range 34E, Lea County, New Mexico, on federal land. Figure 1 illustrates the vicinity and site location on an USGS 7.5-minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria			
Name	Rattlesnake 13-12 Fed #001H	Company	Devon Energy Production Company
API Number	30-025-40912	Location	32.037028, -103.416114
Incident Number	NRM2011449161		
Estimated Date of Release	4/17/2020	Date Reported to NMOCD	4/17/2020
Land Owner	Federal	Reported To	NMOCD, BLM
Source of Release	2 phase separator swamped out causing fluid to release from the flare.		
Released Volume	24.1 BBLS	Released Material	Crude Oil
Recovered Volume	4 BBLS	Net Release	20.1 BBLS
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	5/7/2020, 6/11/2020, 7/22-23/2020, 7/28/2020, 9/9/2020		

1.0 Background

On April 17, 2020, a release was discovered at the Rattlesnake 13-12 Fed #001H site due to the 2-phase separator swamping out causing crude oil to release from the flare. Initial response activities were conducted by Devon personnel and included source elimination activities, which recovered approximately 4 barrels of crude oil. Figure 1 illustrates the vicinity and site location, Figure 2 illustrates the release location. The C-141 form is included in Appendix A.

2.0 Site Information and Closure Criteria

The Rattlesnake 13-12 Fed #001H is an active production facility located approximately 14 miles southwest from Jal, New Mexico on Federal (BLM) land at an elevation of approximately 3232 feet above mean sea level (amsl).

Depth to Groundwater
Based upon data from New Mexico Office of the State Engineer (NMOSE) (Appendix B), depth to groundwater in the area is estimated to be 240 feet below grade surface (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 water source, located approximately one mile southeast from the site.

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 as described in 19.15.29.12.C(4) NMAC.

Due to the lack of supportable groundwater data within ½ mile of the site, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs.

3.0 Release Characterization and Remediation Activities

On May 7, 2020 and June 11, 2020, SMA personnel performed site delineation activities at the Rattlesnake 13-12 Fed #001H site. SMA collected soil samples around the release site and throughout the visibly stained area. The areas of visual impact were located partially within the boundary of the developed production facility, and partially in the pasture. Soil samples were field-screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp.

A total of 6 sample locations (L1-L8, S1-S3, and SW1-SW4) were investigated using a hand-auger, to depths up to 5 feet bgs. At least one sample was collected at each sampling location and field-screened using the methods above. A total of 45 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.

As summarized in Table 3, results indicated that an area approximately 8700 square feet at depths varying from 0.5 to 7 feet deep had been impacted.

On July 22- 23, and July 28, 2020, SMA returned to the site to guide the excavation of contaminated soil. SMA guided the excavation activities by collecting soil samples for field screening. Samples were

screened for chloride using an electrical conductivity (EC) meter and for hydrocarbon impacts using a calibrated MiniRAE 3000 photoionization detector (PID) equipped with a 10.6 eV lamp. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. Due to the large area of the excavation, SMA submitted an alternate sampling plan, and between July 23, and September 4, 2020 clarifications and modifications to that plan were negotiated with NMOCD.

Upon approval from NMOCD of the alternate sampling plan (email dated September 4, 2020), and following proper notification requirements, SMA collected confirmation samples from the walls and base of the excavation on September 9, 2020. The area representing initial sample locations S1-S2 and L5-L8 was excavated to a depth of 0.5 feet bgs, the area representing sample location L4 was excavated to a depth of 3 feet bgs, the area representing sample location S3 was excavated to a depth of 1 foot bgs, the area representing sample location L3 was excavated to a depth of 2 feet bgs, the area representing sample location L1 was excavated to a depth of 6 feet bgs, the area representing sample location L2 was excavated to a depth of 4 feet bgs.

Confirmation samples were comprised of five-point composites of the base at each excavation depth (CS1-CS26) and walls (SW1-SW10). The confirmation samples were collected from within the excavated areas in accordance with the approved alternate systematic sampling approach, as defined by SW846 using Gilbert, 1987 equation 5.2.3 for Stratified Random Sampling (Appendix C). This systematic method meets the EPAs data quality assessment standards (DQA) for composite sampling. A photo log of the open excavation can be found in Appendix E.

A total of 36 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. Laboratory samples were collected in accordance with the sampling protocol included in Appendix C. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico (Appendix D).

Figure 3 shows the extent and depths of the final excavation, as well as initial and closure sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

4.0 Site Recommendations

As demonstrated in Table 3, all closure samples meet the Closure Criteria. The site has been remediated to meet the standards of Table I of 19.15.29.12 NMAC.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at Northern Delaware Basin Landfill, near Jal, NM, an NMOCD-permitted disposal facility.

SMA recommends no further action and requests closure of Incident Number NRM2011449161.

5.0 Scope and Limitations

The scope of our services included: assessment sampling; verifying release stabilization; regulatory liaison; remediation; and preparing this report. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin in New Mexico.

If there are any questions regarding this report, please contact either Ashely Maxwell at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

Ashley Maxwell
Project Manager

Shawna Chubbuck
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 10/7/2020

ATTACHMENTS:

Figures:

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

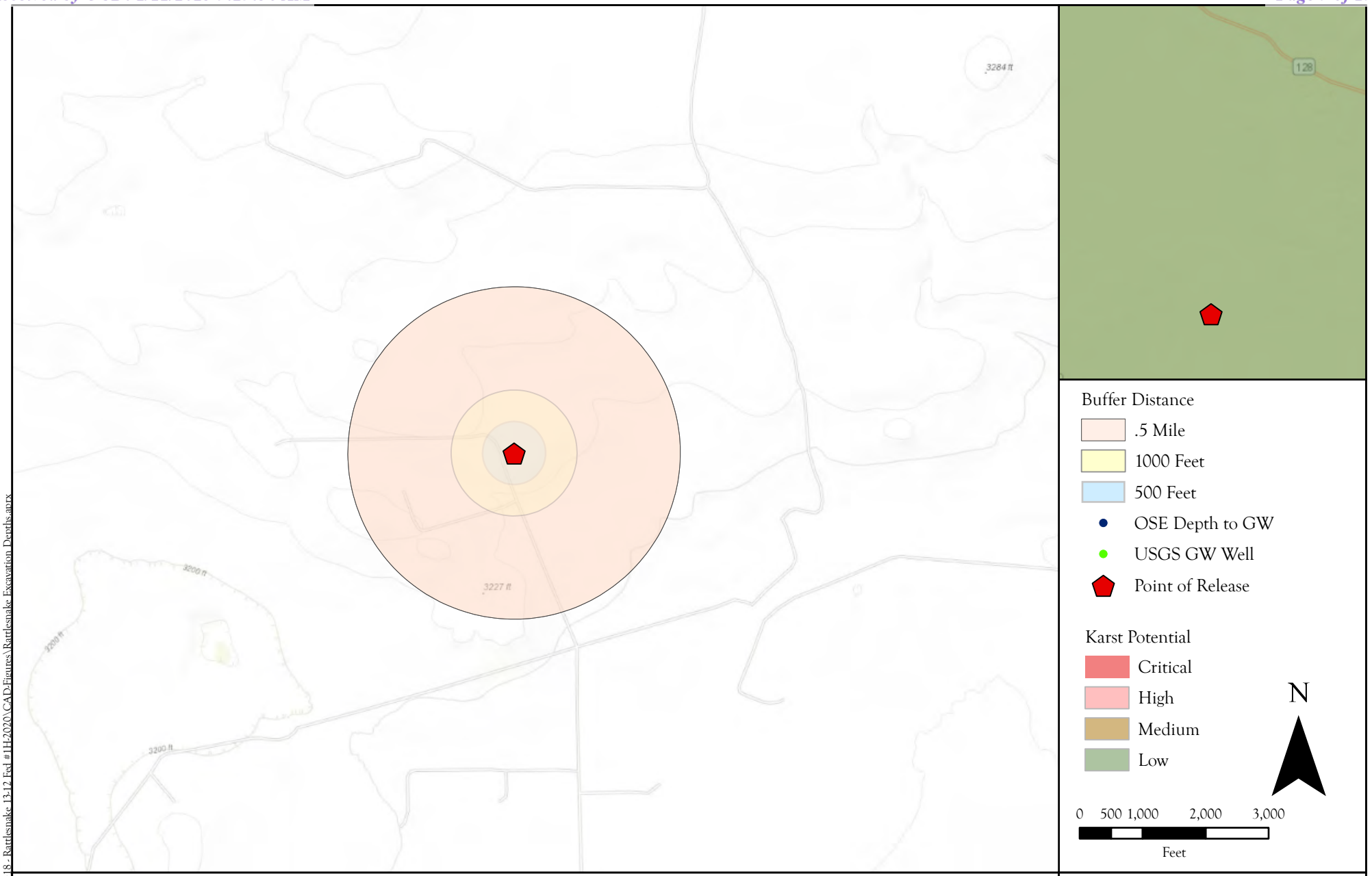
Tables:

Table 2: NMOCD Closure Criteria Justification
Table 3a: Summary of Sample Results (Initial Samples)
Table 3b: Summary of Sample Results (Closure Samples)

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report
Appendix C: Sampling Protocol and Field Notes
Appendix D: Laboratory Analytical Reports
Appendix E: Photo Log

FIGURES



Site Map

Rattlesnake 13-12 Fed Com 1H - Devon Energy Production Company

UL: P S: 13 T: 26S R: 34E Lea County, New Mexico

Figure 1

P:\5-Devon MSA 2020 (5F29133)\FG18 - Rattlesnake 13-12 Fed #1H 2020\CAD Figures\Rattlesnake Excavation Depths.aprx

Date Saved: 10/6/2020

Revisions

By: _____ Date: _____ Descr: _____

By: _____ Date: _____ Descr: _____

Drawn Sebastian Orozco

Date 10/7/2020

Checked _____

Approved _____

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Carlsbad, New Mexico 88221
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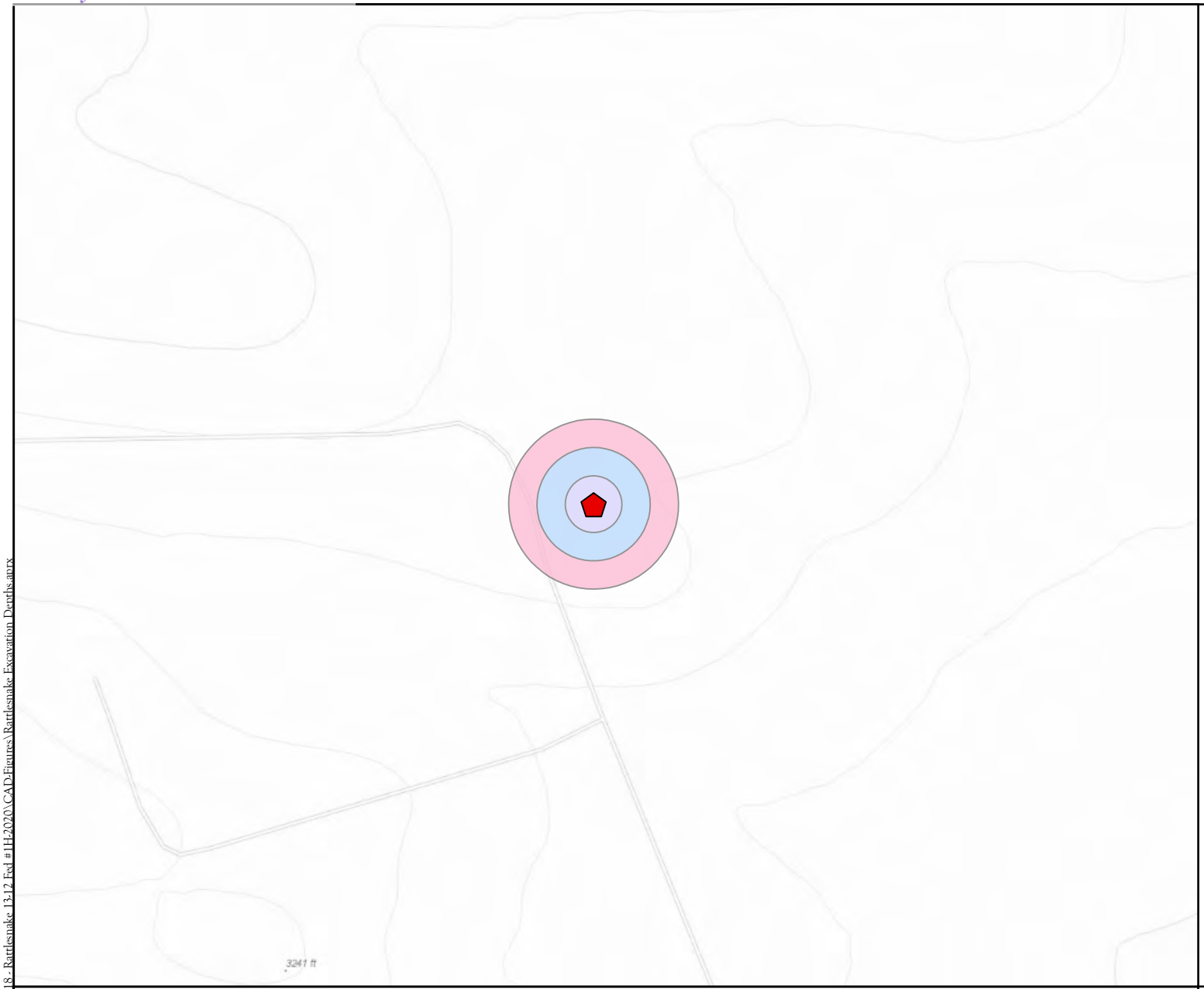
Serving the Southwest & Rocky Mountains



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

N

0 170 340 680 1,020

Feet

Surface Water Protection Map
Rattlesnake 13-12 Fed Com 1H - Devon Energy Production Company
UL: P S: 13 T: 26S R: 34E Lea County, New Mexico

Figure 2

P:\5-Devon MSA 2020 (5F29133)\FG18 - Rattlesnake 13-12 Fed #1H 2020\CAD Figures\Rattlesnake Excavation Depths.aprx
Date Saved: 10/6/2020

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By: Date: Descr:

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Date 10/7/2020
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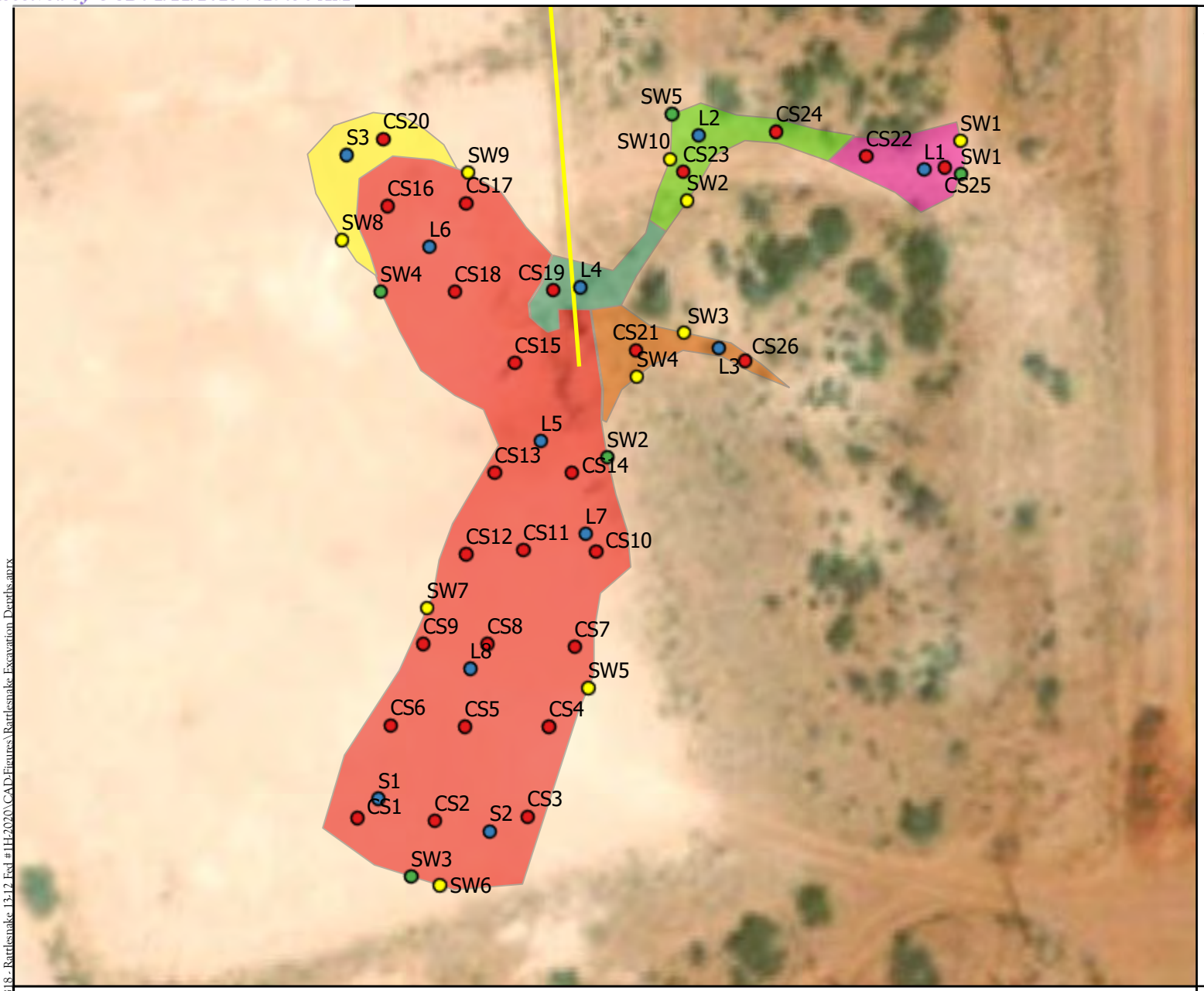

Legend

- Petroleum Flowline
- Point of Release

Boundaries

- 0.5' Excavation
- 1' Excavation
- 2' Excavation
- 3' Excavation
- 4' Excavation
- 6' Excavation

Sample Points

- Initial Side Wall Samples
- Initial Soil Samples
- Side Wall Closure Samples
- Base Closure Samples

N

0 15 30 60 90

Feet

Sample Location and Excavation Depths Map
Rattlesnake 13-12 Fed 1H - Devon Energy Production Company
UL: P S: 13 T: 26S R: 34E Lea County, New Mexico

Figure 3

P:\5-Devon MSA 2020 (5E29133)\FG18 - Rattlesnake 13-12 Fed #1H\2020\CAD Figures\Rattlesnake Excavation Depths.mxd
Date Saved: 10/19/2020

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

Drawn Sebastian Orozco
Date 10/19/2020
Checked
Approved

SMA
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TABLES

Table 2:
NMOCD Closure Criteria

Devon Energy Production Company
Rattlesnake 13-12 #001H
NRM2011449161

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	240	NMOSE
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	-	-
Hortizontal Distance to Nearest Significant Watercourse (ft)	5,280	USGS

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					
within a 100-year floodplain?	No					

SMA #

Table 3:
Sample Results

Devon Energy
Rattlesnake 13- 12 FED 1H
NRM2011449161

Sample ID	Sample Date	Depth of Sample (feet bgs)	Proposed 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 (>4 ft)				50	10				100	600
Pasture										
L1	5/7/2020	Surface	Excavate	<1.08	<0.12	43	18,000	15,000	33,043	21,000
		1		<0.221	<0.025	<4.9	<9.8	<49	<63.7	5,300
		1.5		<0.215	<0.024	<4.8	<9.5	<48	<62.3	6,400
	6/11/2020	2		<0.220	<0.024	<4.9	15	<47	15	3,300
		3		<0.219	<0.024	<4.9	<45	<9.1	<59	8,700
		4		<0.224	<0.025	<5.0	<9.6	<48	<62.9	6,600
		5		<0.216	<0.024	<4.8	<9.9	<50	<64.7	3,400
L2	5/7/2020	Surface	Excavate	<0.222	<0.025	<4.9	8,500	7,200	15,700	7,600
		1		<0.222	<0.025	<4.9	<9.4	<47	<61.3	4,700
		1.5		<0.221	<0.025	<4.9	<10	<50	<64.9	4,900
	6/11/2020	2		<0.208	<0.023	<4.6	2400	1600	4000	10,000
		3		<0.220	<0.024	<4.9	39	<48	39	2,900
		4		<0.219	<0.024	<4.9	<9.9	<49	<63.8	150
L3	5/7/2020	Surface	Excavate	2.45	<0.12	78	15,000	9,900	24,978	21,000
		1		<0.222	<0.025	6	660	460	1,126	5,500
		2	In-situ	<0.219	<0.024	<4.9	<9.4	<47	<61.3	120
L4	5/7/2020	Surface	Excavate	13.6	<0.024	160	3,400	2,500	6,060	10,000
		1		<0.221	<0.025	5.4	620	500	1,125.40	7,300
		1.5		<0.220	<0.024	<4.9	16	<48	16	4,000
	6/11/2020	3	In-situ	<0.222	<0.025	<4.9	12	<46	12	440
		4		<0.224	<0.025	<5.0	13	<46	13	5,500
		5	In-situ	<0.222	<0.025	<4.9	<10	<50	<64.9	140
Well Pad										
L5	5/7/2020	Surface	Excavate	0.407	<0.025	9.1	8,900	6,900	15809.1	27,000
		1	In-situ	<0.216	<0.024	<4.8	22	<48	22	250
L6	5/7/2020	Surface	Excavate	<0.224	<0.025	<5.0	5,000	4,900	9,900	10,000
		0.5	In-situ	<0.225	<0.025	<5.0	11	<46	11	390
L7	5/7/2020	Surface	Excavate	<0.221	<0.025	<4.9	11,000	12,000	23,000	50,000
		0.5		<0.220	<0.024	<4.9	190	120	310	1,600
	6/11/2020	1	In-situ	<0.220	<0.024	<4.9	<9.5	<48	<62.4	<60
L8	5/7/2020	Surface	Excavate	0.461	<0.025	15	17,000	16,000	33,015	5,800
		0.5		<0.224	<0.025	<5.0	120	98	218	<60
		1	In-situ	<0.222	<0.025	<4.9	<9.8	<49	<63.7	<60
S1	5/7/2020	Surface	Excavate	<0.219	<0.024	<4.9	3,400	3,300	6,700	16,000
		0.5	In-situ	<0.219	<0.024	<4.9	<9.5	<48	<62.4	78
S2	5/7/2020	Surface	Excavate	<0.221	<0.025	<4.9	380	460	840	6,000
		0.5	In-situ	<0.225	<0.025	<5.0	<9.8	<49	<63.8	<60
S3	5/7/2020	Surface	Excavate	<0.224	<0.025	<5.0	570	890	1,460	17,000
		0.5		<0.222	<0.025	<4.9	<10	<50	<64.9	1,100
	6/11/2020	1'	In-situ	<0.220	<0.024	<4.9	<9.4	<47	<61.3	<60
SW1	5/7/2020	Surface	Excavate	<0.222	<0.025	<4.9	21	<47	21	1,300
	6/11/2020	Surface	In-situ	<0.220	<0.024	<4.9	<9.9	<50	<64.8	<59
SW2	5/7/2020	Surface	In-situ	<0.222	<0.025	<4.9	25	<49	25	120
SW3	5/7/2020	Surface	Excavate	<0.225	<0.025	<5.0	40	54	94	1,600
		Surface	In-situ	<0.220	<0.025	<4.9	<9.2	<46	<60.1	<60
SW4	5/7/2020	Surface	In-situ	<0.222	<0.025	<4.9	<9.9	49	49	230
SW5	5/7/2020	Surface	In-situ	<0.221	<0.025	<4.9	16	<49	16	570

"--" = Not Analyzed

SMA #

Table 3b:
Closure Sample Results

Devon Energy
Rattlesnake 13- 12 FED 1H
NRM2011449161

Sample ID	Sample Date	Depth of Sample (feet bgs)	Proposed 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 (>4 ft)				50	10				100	600
Confirmation Sampling Event										
CS1	9/9/2020	0.5	In-Situ	<0.224	<0.025	<5.0	<9.4	<47	<61	<60
CS2				<0.224	<0.025	<4.9	<9.3	<46	<60.2	<59
CS3				<0.220	<0.024	<4.9	<9.6	<48	<62.5	<59
CS4				<0.221	<0.025	<4.9	<9.3	<47	<61.2	<60
CS5				<0.222	<0.025	<4.9	<9.3	<46	<60.2	<60
CS6				<0.221	<0.025	<4.9	<9.8	<49	<63.7	<60
CS7				<0.225	<0.025	<5.0	<9.5	<47	<61.5	<59
CS8				<0.219	<0.024	<4.9	<9.6	<48	<63	<60
CS9				<0.224	<0.025	<5.0	<9.4	<47	<61.4	<60
CS10				<0.219	<0.024	<4.9	<9.8	<49	<63.7	<60
CS11				<0.219	<0.024	<4.9	<9.8	<49	<63.7	<60
CS12				<0.222	<0.025	<4.9	<9.4	<47	<61.3	<60
CS13				<0.224	<0.025	<5.0	<9.8	<49	<63.8	<60
CS14				<0.222	<0.025	<4.9	<9.7	<48	<63	<60
CS15				<0.221	<0.025	<4.9	<9.8	<49	<64	<60
CS16				<0.219	<0.024	<4.9	<9.8	<49	<63.7	<60
CS17				<0.222	<0.025	<4.9	<9.7	<48	<63	<60
CS18				<0.219	<0.024	<4.9	<9.6	<48	<62.5	<60
CS19		3		<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
CS20		1		<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60
CS21		2		<0.222	<0.025	<4.9	<9.2	<46	<60.1	<61
CS22		6		<0.2174	<0.024	<4.8	<9.8	<49	<63.6	<61
CS23		4		<0.222	<0.025	<4.9	<8.9	<45	<58.8	<59
CS24		4		<0.221	<0.025	<4.9	<9.3	<47	<61.2	<59
CS25		6		<0.224	<0.025	<5.0	<8.7	<43	<56.7	<60
CS26		2		<0.221	<0.025	<4.9	<9.8	<49	<64	<60
SW1		0-6		<0.225	<0.025	<5.0	<9.8	<49	<63.8	<60
SW2		0-4		<0.225	<0.025	<5.0	<9.5	<47	<62	<61
SW3		0-2		<0.221	<0.025	<4.9	<9.4	<47	<61.3	<61
SW4		0-0.5		<0.220	<0.024	<4.9	<9.0	<45	<58.9	<60
SW5		0-0.5		<0.221	<0.025	<4.9	<9.6	<48	<63	<60
SW6		0-0.5		<0.225	<0.025	<5.0	<9.6	<48	<62.6	<60
SW7		0-0.5		<0.217	<0.024	<4.8	<10	<50	<64.8	<60
SW8		0-1		<0.222	<0.025	<4.9	<9.9	<49	<64	<60
SW9		0-3		<0.224	<0.025	<5.0	<9.9	<50	<64.9	<60
SW10		0-4		<0.224	<0.025	<5.0	<9.6	<48	<62.6	<60

APPENDIX A
FORM C141

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	NRM2011449161
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☐ Private (*Name:* _____)

Nature and Volume of Release

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

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

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011449161
District RP	
Facility ID	
Application ID	

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

Initial Response

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

- ☐ The source of the release has been stopped.
- ☐ The impacted area has been secured to protect human health and the environment.
- ☐ Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices.
- ☐ All free liquids and recoverable materials have been removed and managed appropriately.

If all the actions described above have not been undertaken, explain why:

Per 19.15.29.8 B. (4) NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please attach a narrative of actions to date. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see 19.15.29.11(A)(5)(a) NMAC), please attach all information needed for closure evaluation.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Printed Name: _____ Title: _____

Signature: Kendra DeHoyos Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Ramona Marcus Date: 4/23/2020

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011449161
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?	260 (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	NRM2011449161
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: Dale Woodall Title: Env Professional

Signature: Dale Woodall Date: 1/11/2023

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NRM2011449161
District RP	
Facility ID	
Application ID	

Closure

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

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

☒ A scaled site and sampling diagram as described in 19.15.29.11 NMAC

☒ Photographs of the remediated site prior to backfill or photos of the liner integrity if applicable (Note: appropriate OCD District office must be notified 2 days prior to liner inspection)

☒ Laboratory analyses of final sampling (Note: appropriate ODC District office must be notified 2 days prior to final sampling)

☒ Description of remediation activities

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations. The responsible party acknowledges they must substantially restore, reclaim, and re-vegetate the impacted surface area to the conditions that existed prior to the release or their final land use in accordance with 19.15.29.13 NMAC including notification to the OCD when reclamation and re-vegetation are complete.

Printed Name: Dale Woodall Title: Env. Professional

Signature: Dale Woodall Date: 1/11/2023

email: Dale.Woodall@dvn.com Telephone: 575-748-1838

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Jennifer Nobui Date: 02/01/2023

Printed Name: Jennifer Nobui Title: Environmental Specialist A

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
CP 01305 POD1		CP	LE		1	4	31	25S	37E	655628	3551065	8145	420	230	190
C 02299		CUB	LE	4	2	4	24	25S	34E	649517	3554125	8488	350	300	50
C 03795 POD1		C	LE	4	4	3	24	26S	35E	658419	3544221	8976	496	250	246
C 03442 POD1		C	LE	4	1	2	06	26S	34E	641056	3550028	9566	251		

Average Depth to Water: **260 feet**
Minimum Depth: **230 feet**
Maximum Depth: **300 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 649554.74 **Northing (Y):** 3545636.71 **Radius:** 9600

10/7/20 1:07 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

APPENDIX C
SAMPLING PROTOCOL & FIELD NOTES

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 EPA's Final Sampling Guidance for SW-846, 2002 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 thirty-six (36) 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.

From: Eads, Cristina, EMNRD
To: Ashley Maxwell; Enviro, OCD, EMNRD
Cc: Lynn Acosta; Bynum, Tom (Contract); Carrasco, Lupe
Subject: RE: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request
Date: Friday, September 4, 2020 12:04:18 PM
Attachments: image001.png
image005.png
image008.png
image030.png
image032.png

Ashley,

Thank you for your following up on this email. And thank you for taking the time to answer all of my questions. This sampling plan is approved.

Please let me know if you have any questions.

Thanks,

Cristina Eads | 505-670-5601

From: Ashley Maxwell <ashley.maxwell@soudermiller.com>
Sent: Friday, September 4, 2020 11:28 AM
To: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: Lynn Acosta <lynn.acosta@soudermiller.com>; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>
Subject: [EXT] RE: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request

Good Morning Ms. Eads,

I was wanting to touch base and see if you have been able to review our response back to your questions. The excavation is currently open, and I believe we are already working under an extension to complete the closure. Please feel free to contact me if you need additional information or have other questions.

Thanks,
Ashley

Ashley Maxwell
Project Scientist

Corporate Registrations: AZ Engineering/Geology/Surveying Firm (14070), ID Engineering/Surveying Firm (C-3564), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)

Souder, Miller & Associates
Engineering ♦ Environmental ♦ Geomatics
401 W Broadway
Farmington, New Mexico 87401
www.soudermiller.com

(505) 320-8975 (mobile)
(505) 325-7535 (office)
(505) 326-0045 (fax)

From: Ashley Maxwell
Sent: Friday, August 14, 2020 2:38 PM
To: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: Lynn Acosta <lynn.acosta@soudermiller.com>; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>
Subject: RE: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request

Good Afternoon Ms. Eads,

Thank you for your response. I apologize for the delay in replying. Upon reviewing your questions, we realized that the ARCGIS collector app we use to collect data and create shapefiles from the field had significantly increased the square footage of the shapefile we used to input into the VSP Sampling Program. As a result, SMA returned to site on July 28, 2020 to collect actual site measurements. During this time, we collected excavation photos and created a photo log for your review. The photo log and the excavation measurements have been attached for your review. Your questions prompted us to reevaluate our approach using the VSP SDR and we conducted further research on inputting data regarding the analytes of concern (TPH, BTEX, and chlorides). Below I will address your questions with updated information.

- A site characterization should be completed and findings of site characterization should be sent to the division for review, prior to evaluating this sample plan. I see that this sample plan includes the area, but what about the depth? How will sidewalls be addressed? **The attached document named Excavated Area, contains the updated excavation measurements. The excavation ranges in depths of 0.5 to 7 feet below grade surface. Utilizing the VSP system, we entered a corrected shapefile for the excavation. Instead of entering a general standard deviation (Ph), we entered the regulatory limits for TPH (100 mg/kg), BTEX (50 mg/kg), and chlorides (600 mg/kg). For each of these analytes, the program projects the number of samples required for each analyte in order to meet the regulatory limits entered. These numbers vary by analyte. SMA is choosing to utilize the most stringent number of samples required and applying it to the analytical suite. This**

well be further described in the bullet points below. In the attached document VSP Confirmation Sidewalls, ten (10) sidewall samples identified. Each sidewall sample is represented by an alternating set of five (5) points of triangles, circles, or squares.

- According to the SDR, the entire area to be sampled measures out to 12,366 m2. That is equivalent to 133,103 ft2. I'm not sure if that was a typo, but that leaves one composite sample to represent over 11,000 square feet, which will not be approved. **There was an error in our original shapefile measurements. The app we use in the field relies on satellite data and can be distorted anywhere from 3 to 32 feet. Our field application data grossly misrepresented the actual excavation measurements. On July 28, 2020, we returned to site to collect actual field measurements. Using the corrected data, we were able to correct the shapefile used by the VSP SDR. The corrected data entered is approximately 8,706 square feet. Once again, we used the regulatory limits for TPH (100 mg/kg), BTEX (50 mg/kg), and chlorides (600 mg/kg) to determine the number of samples. The VSP SDR identifies that in order to meet closure criteria, twenty-six (26) base samples will need to be collected for total TPH of less than 100 mg/kg, where, BTEX and chloride sample numbers are determined to be 10 base samples. As mentioned in the above bullet point, SMA is choosing to be conservative and for consistency, will collect at twenty-six (26) base samples for total TPH, BTEX, and chlorides.**
- What is the difference between the two symbol types on the figure in the SDR? **Since we are proposing a different plan, this is no longer relevant.**
- How will subsequent confirmation sampling be completed in the event an area of contamination is discovered through lab data? **In the event contamination is found to be present through lab data, continued excavation of the area will occur, and follow a follow up notification of a sampling event will be made to OCD.**
- I am curious to see the sample models for all five methods provided in VSP, not just the simple random sampling method. **We can provide you additional sampling models for this site using the different stratifications. We select the plan provides the greatest amount of representation of the site based on geographical features and the release area. We can make arrangements to do a Microsoft Team conference so that you can see how these items impact the modeling in real time.**
- What was the reasoning for selecting 0.2 for parameter Ph ? **This no longer applies as SMA has chosen to go with regulatory limits for each analyte.**
- What was the reasoning for selecting the calculation equation in this SDR? **The equation used is standard for the SDR.**

Ms. Eads, I would like to note that new calculations using the VSP program supports a request of a variance from 200 square feet to approximately 331 square feet along the base. SMA is requesting that 26 composite base samples be collected in addition to 10 composite sidewall samples for a total of 36 samples.

I understand that this information can be difficult to communicate via email, and we are open to conduct a Microsoft Teams demonstration.

Please feel free to contact me with additional questions or concerns.

Thanks,
Ashley

Ashley Maxwell
Project Scientist

Corporate Registrations: AZ Engineering/Geology/Surveying Firm (14070), ID Engineering/Surveying Firm (C-3564), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)

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(505) 320-8975 (mobile)
(505) 325-7535 (office)
(505) 326-0045 (fax)

From: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Sent: Friday, July 24, 2020 3:48 PM
To: Ashley Maxwell <ashley.maxwell@soudermiller.com>; Enviro, OCD, EMNRD <OCD.Enviro@state.nm.us>
Cc: Lynn Acosta <lynn.acosta@soudermiller.com>; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>
Subject: RE: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request

Ashley,

It is much appreciated by the Oil Conservation Division (OCD), that consultants and/or operators look at innovative techniques for investigation and remediation. We welcome the assessment of new approaches to these circumstances. The OCD also realizes the need to get as much information and result as possible for each dollar spent. We have and can certainly look deeper at the offered VSP method submitted for our review, which is also a kindness that does not go unnoticed. As OCD has done with previous "new" or "alternative" methods for remediation and investigation we prefer to run trial studies and not be in a position to just "accept" claims made for outcome, regardless of the source. Therefore, if this method were to be approved it would not be a standalone effort. Meaning, the more regular pattern and procedure for sample and therefore data collection would need to be accommodated at the same time and circumstance to the evaluate the validity of the model. This would occur in more than one location and circumstance and possibly with more than

one operator. We understand this is additional expense and effort, but it avails a much greater sense of comfort for us as environmental stewards. For all the above being said, we would very much like to assist in evaluating this mechanism/approach, but it would need to be under an experimental evaluation.

If SMA and Devon would like to proceed as outlined above, there are several questions and concerns regarding this Sample Design Report (SDR) that would need to be addressed in order to move forward:

- A site characterization should be completed and findings of site characterization should be sent to the division for review, prior to evaluating this sample plan. I see that this sample plan includes the area, but what about the depth? How will sidewalls be addressed?
- According to the SDR, the entire area to be sampled measures out to 12,366 m2. That is equivalent to 133,103 ft2. I'm not sure if that was a typo, but that leaves one composite sample to represent over 11,000 square feet, which will not be approved.
- What is the difference between the two symbol types on the figure in the SDR?
- How will subsequent confirmation sampling be completed in the event an area of contamination is discovered through lab data?
- I am curious to see the sample models for all five methods provided in VSP, not just the simple random sampling method.
- What was the reasoning for selecting 0.2 for parameter Ph ?
- What was the reasoning for selecting the calculation equation in this SDR? I

Please let me know if you have any questions or comments. I am happy to discuss further if you would like.

I would also like to add, please send all sampling notifications to OCD.Enviro@state.nm.us in the future.

Thank you,

Cristina Eads | 505-670-5601

From: Ashley Maxwell <ashley.maxwell@soudermiller.com>
Sent: Thursday, July 23, 2020 11:53 AM
To: EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>; Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Cc: Lynn Acosta <lynn.acosta@soudermiller.com>; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>
Subject: [EXT] Re: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request

Ms. Eads,

We will wait for a determination from OCD before sampling.

Thank you,
Ashley

Sent via the Samsung Galaxy S10, an AT&T 5G Evolution capable smartphone
Get Outlook for Android

From: Eads, Cristina, EMNRD <Cristina.Eads@state.nm.us>
Sent: Thursday, July 23, 2020 11:30:49 AM
To: Ashley Maxwell <ashley.maxwell@soudermiller.com>; EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>
Cc: Lynn Acosta <lynn.acosta@soudermiller.com>; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>
Subject: RE: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request

Ashley,

The OCD is currently reviewing the proposed sampling plan for NRM2011449161 RATTLESNAKE 13-12 FED COM 1H @ 30-025-40912. If the proposed sampling plan is not approved prior to the confirmation sampling event, the responsible party will need to follow 19.15.29.12 NMAC.

Thanks,

Cristina Eads | 505-670-5601

From: Ashley Maxwell <ashley.maxwell@soudermiller.com>
Sent: Thursday, July 23, 2020 10:32 AM
To: EMNRD-OCD-District1spills <EMNRD-OCD-District1spills@state.nm.us>
Cc: Lynn Acosta <lynn.acosta@soudermiller.com>; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>; Carrasco, Lupe <Lupe.Carrasco@dvn.com>
Subject: [EXT] Rattlesnake 13-12 Fed Com 1H (NRM2011449161) Sampling Variance Request
Importance: High

Dear District I Representatives,

SMA and Devon are requesting a variance of 19.15.29.12(D)(1)(c) NMAC for conducting closure sampling for the base of the excavation as described in the attached VSP Sample Design Report. As written, to sample every 200ft^2 would require Devon to collect in excess of 61 samples, which would create an undue burden on the operator. As a viable alternative, SMA and Devon propose using the Visual Sample Plan (VSP) software tool, which was created by the Department of Energy. The VSP is a defensible method that provides equal protection of fresh water, public health, and the environment without the burden of excess samples that statistically yield the same data. The VSP software generates a site-specific Sample Design Report, which is attached for the Rattlesnake 13-12 Fed Com 1H release site. SMA and Devon propose the following as a variance:

- Using the Department of Energy's VSP Sample Design Report utilizing a systematic sampling approach as defined by SW846 using Gilbert (1987)

equation 5.2.3 for stratified random sampling. As stated in the attached document, “The underlying methodology employs statistically defensible approaches with support the Data Quality Objectives (DQO) Process. The objective is to ensure that the right type, quality and quantity of data are gathered…”

- SMA has adjusted the deviation of the VSP program to support the request of the OCD for additional samples and proposes the following:
    - SMA will collect twelve (12) five-point composite samples in the area identified on the attached VSP Sample Design Report.

A 48-hour notification was submitted for confirmation sampling to occur on July 23, 2020. However, SMA will submit a second notification of confirmation sampling upon response from OCD.

Thanks!
Ashley

Ashley Maxwell
Project Scientist

Corporate Registrations: AZ Engineering/Geology/Surveying Firm (14070), ID Engineering/Surveying Firm (C-3564), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)

Souder, Miller & Associates
Engineering ♦ Environmental ♦ Geomatics
401 W Broadway
Farmington, New Mexico 87401
www.soudermiller.com
(505) 320-8975 (mobile)
(505) 325-7535 (office)
(505) 326-0045 (fax)

From: Lynn Acosta <lynn.acosta@soudermiller.com>
Sent: Tuesday, July 21, 2020 12:06 PM
To: emnrd-ocd-district1spills@state.nm.us
Cc: Ashley Maxwell <ashley.maxwell@soudermiller.com>; lupe.carrasco@dvn.com; Bynum, Tom (Contract) <Tom.Bynum@dvn.com>
Subject: Rattlesnake 13-12 Fed Com 1H (NRM2011449161) 48-Hour Notification

Good Afternoon,

Souder Miller & Associates is conducting an excavation at the Rattlesnake 13-12 Fed Com 1H (NRM2011449161). SMA is anticipating to collect confirmation samples on Thursday, July 23, 2020. Please acknowledge this as our 48-Hour notice to NMOCD.

Please let me if you have any questions or concerns.

Respectfully,

Lynn A. Acosta
Staff Geoscientist

Corporate Registrations: AZ Engineering/Geology/Surveying Firm (14070), SD Surveying Firm (C-7436), TX Engineering Firm (8877), TX Geology Firm (50254), TX PST CAPM (CS-0000051), TX Surveying Firm (10162200), WY Engineering/Surveying Firm (S-1704)

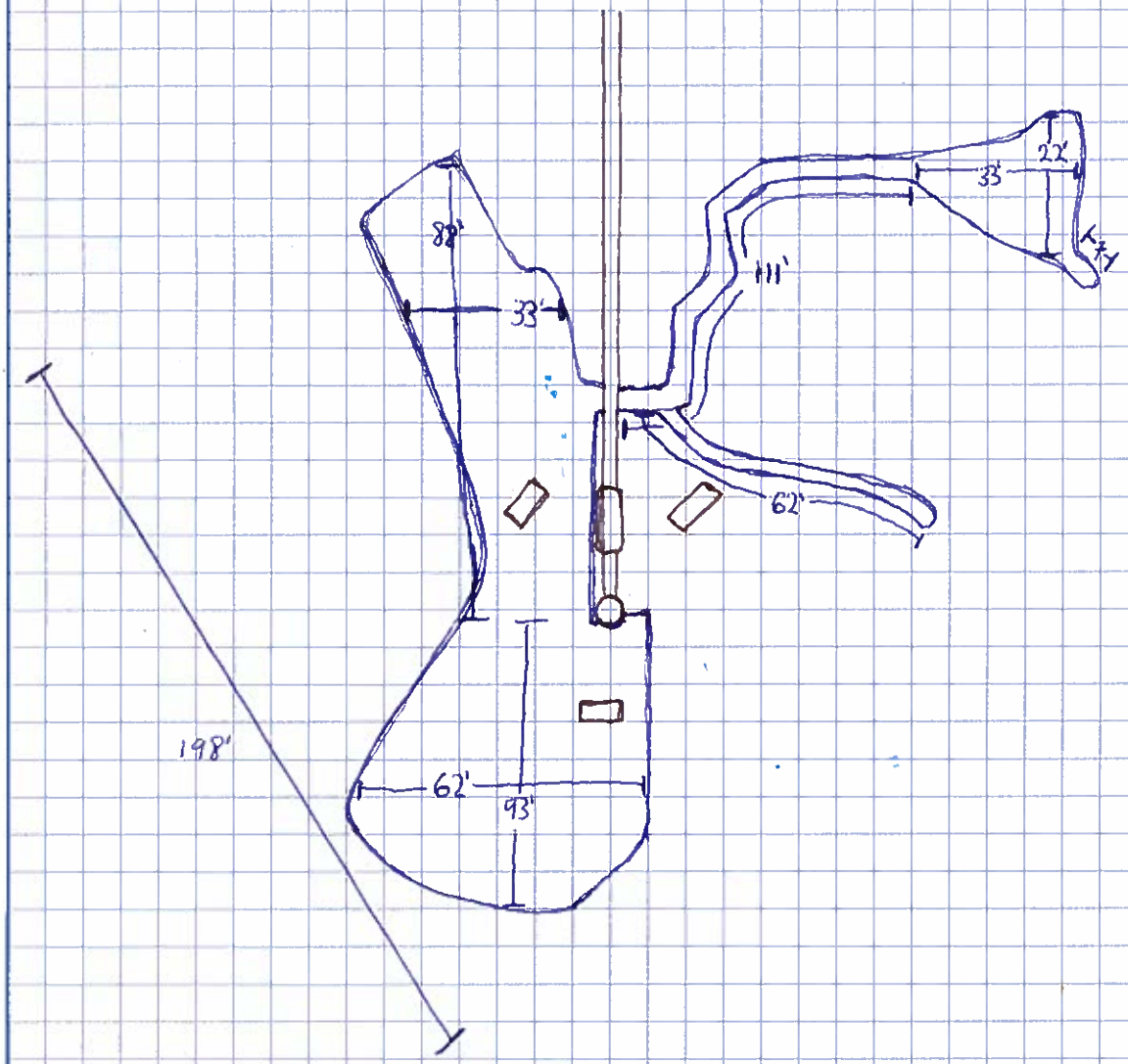
Souder, Miller & Associates
Engineering ♦ Environmental ♦ Surveying
3500 Sedona Hills Parkway
Las Cruces, NM 88011
www.soudermiller.com
(575) 647-0799 Ext. 1329 (office)
(505) 516-7469 (mobile)
(575) 647-0680 (fax)

SUBJECT | PROJECT | PAGE

CLIENT | DATE | BY

CHECKED | BY

- Diameter of excavation on pad = 467'
- Diameter of Northern vain excavation = 322'
- Diameter of Southern vain excavation = 133'
- Width of Vains = 2'



2/11/2020 Rattlesnake 13-12" DVN Acosta L.

- Arrived on site (8:30a)
- Goal: delineate Sample locations that did not pass NMOCD Closure Criteria

- Sample locations that need to be delineated are SL1, L2, L4, L7 S3.
  - Also need to extend SW1 and SW3.

- Will Began at L1
  - L1 Sample at 2' smells like HC
  - Sample at 3' Smells like fresh dirt
  - Sample at 4' has no odor
  - Sample at 5' also has no odor
- Sample Location at L2
  - Sample at 2' has minor HC odor
  - Sample at 3' has no odor
  - Sample at 4' nos no odor
- Sample location L4
  - Sample at 2' has HC odor
  - Sample at 3' has minor HC odor
  - Sample at 4' has no HC odor
  - Sample at 5' has no HC odor
- Sample location L7
  - Sample at 1' has no HC odor
- Sample location S3
  - Sample at 1' has no HC odor
- Collected SW1 a foot extended
- Collected SW3 a foot extended.
- Packed all samples and filled out at COC
- Met Skip to deliver Samples.

- Arrived at office

Field Screening

Location Name: Rattlesnake 12-13 Fed 1

Date: 7/22/2020

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
BS1	Sand	0.5'	9:50	0.12	29.8	2.1	
BS2	"	3'	2:50	0.05	31.3	20.3	
BS3	"	1'	9:59	0.10	29.5	12.6	
SW3	"	0'	10:00	0.09	29.9	24.8	
SW4	"	0'	10:00	0.11	29.3	33.1	

Field Screening

Location Name: Rattlesnake 12-13 Fed 1

Date: 7/23/2020

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
BS 4	Sand	7'	9:52	0.09	29.9	1.4	
SW 1		0-7	1:04	0.07	28.9	1.3	
BS 5		4	12:55	0.03	31.4	1.4	
BS 6		2.5	2:30	0.13	31.7	3.9	
SW 2		0-2'	3:00	0.09	31.5	3.3	
BS 7		2.5'	3:45	0.07	31.7		
BS 8		2.5'	3:55	0.08	32.3		
SW 5		1'	4:00	0.11	32.9		

Field Screening

Location Name: Rattlesnake 13-12

Date: 6/11/20

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
L1	red sand	2'	910	3.42	26.4	—	—
		3'	912	5.00	26.5	—	—
		4'	951	4.13	26.7	—	—
		5'	952	2.46	26.8	—	—
L2		2'	1000	10.06	27.5	—	—
		3'	1002	2.71	26.7	—	—
		4'	1004	6.17	26.7	—	—
L4		3'	1026	0.49	27.4	—	—
		4'	1029	4.43	27.2	—	—
		5'	1033	0.17	26.8	—	—
L7	red sand	1'	948	0.03	26.7	—	—
S3		1'	1050	0.10	27.8	—	—
SW1		surface	1053	0.03	27.8	—	—
SW2		surface	1058	0.03	27.8	—	—

Field Screening

Location Name: Rattlesnake 13-12 Fed 1H

Date: 5/7/20

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
L1	Sand	S	9:33	*		57.1	
		1'	9:35	*		11.2	
		1.5'	9:39	*		8.6	
		2'	9:46			15.6	
L2		S	9:50	*		18.3	
		1'	9:53	*		3.5	
		1.5'	9:55	*		2.3	
		2'	9:56			2.4	
L3		S	9:58	*		212	
		1'	10:01	*		128	
		1.5'	10:03			34.3	
		2'	10:05	*		10.9	
L4		S	10:09	*		207	
		1'	10:11	*		173	
		1.5'	10:13	*		27.1	
		2'	10:16			334	
L5		S	10:20	*		19.8	
		1'	10:27	*		3.0	
L6		S	11:09	*		3.7	
		6"	11:18	*		0.8	
L7		S	11:21	*		42.4	
		6"	11:27	*		7.7	
L8		S	11:30	*		60.8	
		0.5'	11:36	*		25.5	
		1'	11:41	*		3.8	

Field Screening

Location Name: Rattlesnake 13-12 Fed 1H.

Date: 5/7/20

Sample Name:	Soil Type:	Depth (BGS)	Collection Time:	EC (ppm)	Temp (°C)	PID Reading	PF
S1		S	11:46	*		2.7	
		6"	11:52	*		1.2	
S2		S	11:54	*		1.9	
		6"	11:59	*		1.1	
S3		S	12:02	*		2.0	
		6"	12:08	*		1.1	
SW1		S	2:12	*		2.3	
SW2		↓	2:17	*		2.1	
SW3		↓	2:23	*		2.5	
SW4		↓	2:27	*		1.7	
SW5		↓	2:30	*		1.7	

NOTES

Rattlesnake 13-12 Fed 1H

5/7/20

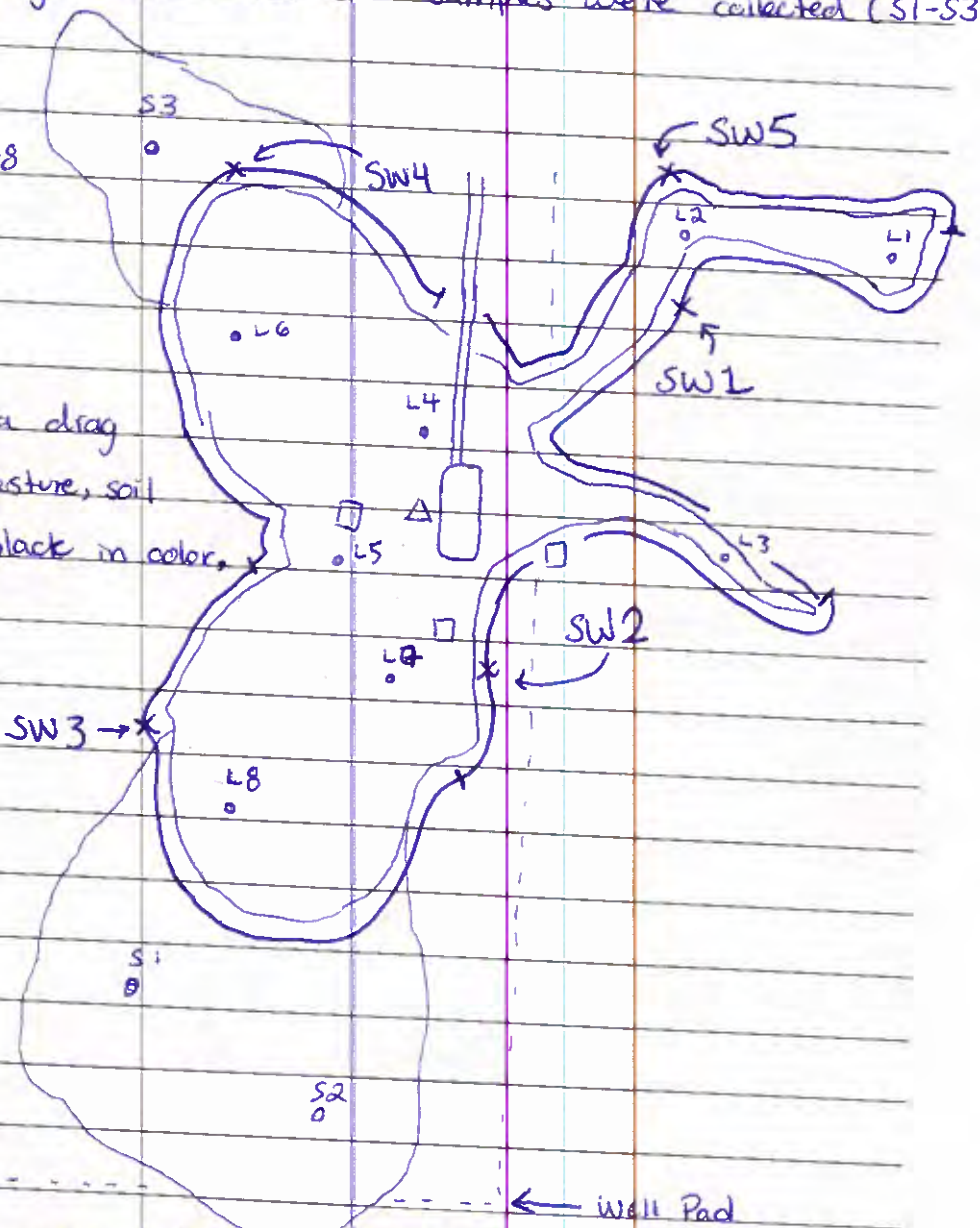
9:30 Arrived on location, filled out JHA and began sampling. Three soil samples were collected in the pasture (L1-L3), additionally five soil samples were collected on pad in spill area (L4-L8)

- Along the overspray area three soil samples were collected (S1-S3)

Pasture: L1, L2, L3

On Pad: L4, L5, L6, L7, L8

Overspray: S1, S2, S3



- L4 was taken along a drag that flowed into the pasture, soil on surface was really black in color.

- Five Side Wall samples were taken (SW1 - SW5), all composite 5 point samples.
- All samples were field screened for hydrocarbons using PID.

3:00 Finished sampling, left location.

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

May 14, 2020

Ashley Maxwell
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: Rattlesnake 13 12 FED 1H OrderNo.: 2005393

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 32 sample(s) on 5/9/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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 **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1- Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:33:00 AM
Lab ID: 2005393-001 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	21000	1500		mg/Kg	500	5/11/2020 3:08:58 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	43	24		mg/Kg	5	5/12/2020 1:48:50 PM	52366
Surr: BFB	95.0	70-130		%Rec	5	5/12/2020 1:48:50 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	18000	970		mg/Kg	100	5/12/2020 12:48:12 PM	52381
Motor Oil Range Organics (MRO)	15000	4800		mg/Kg	100	5/12/2020 12:48:12 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	100	5/12/2020 12:48:12 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.12		mg/Kg	5	5/11/2020 6:09:33 PM	52366
Toluene	ND	0.24		mg/Kg	5	5/11/2020 6:09:33 PM	52366
Ethylbenzene	ND	0.24		mg/Kg	5	5/11/2020 6:09:33 PM	52366
Xylenes, Total	1.1	0.48		mg/Kg	5	5/11/2020 6:09:33 PM	52366
Surr: 1,2-Dichloroethane-d4	87.6	70-130		%Rec	5	5/11/2020 6:09:33 PM	52366
Surr: 4-Bromofluorobenzene	84.9	70-130		%Rec	5	5/11/2020 6:09:33 PM	52366
Surr: Dibromofluoromethane	101	70-130		%Rec	5	5/11/2020 6:09:33 PM	52366
Surr: Toluene-d8	101	70-130		%Rec	5	5/11/2020 6:09:33 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:35:00 AM
Lab ID: 2005393-002 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	5300	300		mg/Kg	100	5/11/2020 3:21:22 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 2:46:11 PM	52366
Surr: BFB	96.1	70-130		%Rec	1	5/12/2020 2:46:11 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/12/2020 8:07:06 PM	52381
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/12/2020 8:07:06 PM	52381
Surr: DNOP	102	55.1-146		%Rec	1	5/12/2020 8:07:06 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 7:35:04 PM	52366
Toluene	ND	0.049		mg/Kg	1	5/11/2020 7:35:04 PM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 7:35:04 PM	52366
Xylenes, Total	ND	0.098		mg/Kg	1	5/11/2020 7:35:04 PM	52366
Surr: 1,2-Dichloroethane-d4	89.5	70-130		%Rec	1	5/11/2020 7:35:04 PM	52366
Surr: 4-Bromofluorobenzene	90.5	70-130		%Rec	1	5/11/2020 7:35:04 PM	52366
Surr: Dibromofluoromethane	107	70-130		%Rec	1	5/11/2020 7:35:04 PM	52366
Surr: Toluene-d8	99.4	70-130		%Rec	1	5/11/2020 7:35:04 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-1.5'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:39:00 AM
Lab ID: 2005393-003 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	6400	300		mg/Kg	100	5/11/2020 3:33:47 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/11/2020 9:00:49 PM	52366
Surr: BFB	87.9	70-130		%Rec	1	5/11/2020 9:00:49 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/12/2020 8:31:32 PM	52381
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2020 8:31:32 PM	52381
Surr: DNOP	97.6	55.1-146		%Rec	1	5/12/2020 8:31:32 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	5/11/2020 9:00:49 PM	52366
Toluene	ND	0.048		mg/Kg	1	5/11/2020 9:00:49 PM	52366
Ethylbenzene	ND	0.048		mg/Kg	1	5/11/2020 9:00:49 PM	52366
Xylenes, Total	ND	0.095		mg/Kg	1	5/11/2020 9:00:49 PM	52366
Surr: 1,2-Dichloroethane-d4	88.7	70-130		%Rec	1	5/11/2020 9:00:49 PM	52366
Surr: 4-Bromofluorobenzene	92.3	70-130		%Rec	1	5/11/2020 9:00:49 PM	52366
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/11/2020 9:00:49 PM	52366
Surr: Toluene-d8	95.9	70-130		%Rec	1	5/11/2020 9:00:49 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:50:00 AM
Lab ID: 2005393-004 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	7600	300		mg/Kg	100	5/11/2020 3:46:11 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 9:29:38 PM	52366
Surr: BFB	94.3	70-130		%Rec	1	5/11/2020 9:29:38 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	8500	970		mg/Kg	100	5/12/2020 1:12:24 PM	52381
Motor Oil Range Organics (MRO)	7200	4900		mg/Kg	100	5/12/2020 1:12:24 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	100	5/12/2020 1:12:24 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 9:29:38 PM	52366
Toluene	ND	0.049		mg/Kg	1	5/11/2020 9:29:38 PM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 9:29:38 PM	52366
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 9:29:38 PM	52366
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%Rec	1	5/11/2020 9:29:38 PM	52366
Surr: 4-Bromofluorobenzene	73.9	70-130		%Rec	1	5/11/2020 9:29:38 PM	52366
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/11/2020 9:29:38 PM	52366
Surr: Toluene-d8	101	70-130		%Rec	1	5/11/2020 9:29:38 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:53:00 AM
Lab ID: 2005393-005 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	4700	300		mg/Kg	100	5/11/2020 3:58:35 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 9:58:19 PM	52366
Surr: BFB	92.4	70-130		%Rec	1	5/11/2020 9:58:19 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/12/2020 8:55:49 PM	52381
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/12/2020 8:55:49 PM	52381
Surr: DNOP	105	55.1-146		%Rec	1	5/12/2020 8:55:49 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 9:58:19 PM	52366
Toluene	ND	0.049		mg/Kg	1	5/11/2020 9:58:19 PM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 9:58:19 PM	52366
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 9:58:19 PM	52366
Surr: 1,2-Dichloroethane-d4	86.8	70-130		%Rec	1	5/11/2020 9:58:19 PM	52366
Surr: 4-Bromofluorobenzene	92.9	70-130		%Rec	1	5/11/2020 9:58:19 PM	52366
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/11/2020 9:58:19 PM	52366
Surr: Toluene-d8	98.3	70-130		%Rec	1	5/11/2020 9:58:19 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-1.5'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:55:00 AM
Lab ID: 2005393-006 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	4900	300		mg/Kg	100	5/11/2020 4:11:00 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 10:27:05 PM	52366
Surr: BFB	92.6	70-130		%Rec	1	5/11/2020 10:27:05 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/12/2020 9:20:23 PM	52381
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/12/2020 9:20:23 PM	52381
Surr: DNOP	104	55.1-146		%Rec	1	5/12/2020 9:20:23 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 10:27:05 PM	52366
Toluene	ND	0.049		mg/Kg	1	5/11/2020 10:27:05 PM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 10:27:05 PM	52366
Xylenes, Total	ND	0.098		mg/Kg	1	5/11/2020 10:27:05 PM	52366
Surr: 1,2-Dichloroethane-d4	87.7	70-130		%Rec	1	5/11/2020 10:27:05 PM	52366
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	5/11/2020 10:27:05 PM	52366
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/11/2020 10:27:05 PM	52366
Surr: Toluene-d8	101	70-130		%Rec	1	5/11/2020 10:27:05 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 9:58:00 AM
Lab ID: 2005393-007 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	21000	1500		mg/Kg	500	5/11/2020 4:23:25 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	78	25		mg/Kg	5	5/11/2020 5:41:02 PM	52366
Surr: BFB	99.6	70-130		%Rec	5	5/11/2020 5:41:02 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	15000	990		mg/Kg	100	5/12/2020 1:36:41 PM	52381
Motor Oil Range Organics (MRO)	9900	4900		mg/Kg	100	5/12/2020 1:36:41 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	100	5/12/2020 1:36:41 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.12		mg/Kg	5	5/11/2020 5:41:02 PM	52366
Toluene	ND	0.25		mg/Kg	5	5/11/2020 5:41:02 PM	52366
Ethylbenzene	0.35	0.25		mg/Kg	5	5/11/2020 5:41:02 PM	52366
Xylenes, Total	2.1	0.49		mg/Kg	5	5/11/2020 5:41:02 PM	52366
Surr: 1,2-Dichloroethane-d4	86.6	70-130		%Rec	5	5/11/2020 5:41:02 PM	52366
Surr: 4-Bromofluorobenzene	74.6	70-130		%Rec	5	5/11/2020 5:41:02 PM	52366
Surr: Dibromofluoromethane	102	70-130		%Rec	5	5/11/2020 5:41:02 PM	52366
Surr: Toluene-d8	97.7	70-130		%Rec	5	5/11/2020 5:41:02 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-1'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:01:00 AM
Lab ID: 2005393-008 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	5500	300		mg/Kg	100	5/11/2020 9:20:58 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	6.0	4.9		mg/Kg	1	5/11/2020 10:55:54 PM	52366
Surr: BFB	99.6	70-130		%Rec	1	5/11/2020 10:55:54 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	660	48		mg/Kg	5	5/13/2020 2:59:51 AM	52381
Motor Oil Range Organics (MRO)	460	240		mg/Kg	5	5/13/2020 2:59:51 AM	52381
Surr: DNOP	123	55.1-146		%Rec	5	5/13/2020 2:59:51 AM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 10:55:54 PM	52366
Toluene	ND	0.049		mg/Kg	1	5/11/2020 10:55:54 PM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 10:55:54 PM	52366
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 10:55:54 PM	52366
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%Rec	1	5/11/2020 10:55:54 PM	52366
Surr: 4-Bromofluorobenzene	77.5	70-130		%Rec	1	5/11/2020 10:55:54 PM	52366
Surr: Dibromofluoromethane	107	70-130		%Rec	1	5/11/2020 10:55:54 PM	52366
Surr: Toluene-d8	99.1	70-130		%Rec	1	5/11/2020 10:55:54 PM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3-2'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:05:00 AM
Lab ID: 2005393-009 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	120	60		mg/Kg	20	5/10/2020 3:48:20 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 1:48:49 AM	52366
Surr: BFB	94.1	70-130		%Rec	1	5/12/2020 1:48:49 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	5/12/2020 9:44:33 PM	52381
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/12/2020 9:44:33 PM	52381
Surr: DNOP	103	55.1-146		%Rec	1	5/12/2020 9:44:33 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	5/12/2020 1:48:49 AM	52366
Toluene	ND	0.049		mg/Kg	1	5/12/2020 1:48:49 AM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 1:48:49 AM	52366
Xylenes, Total	ND	0.097		mg/Kg	1	5/12/2020 1:48:49 AM	52366
Surr: 1,2-Dichloroethane-d4	90.0	70-130		%Rec	1	5/12/2020 1:48:49 AM	52366
Surr: 4-Bromofluorobenzene	92.1	70-130		%Rec	1	5/12/2020 1:48:49 AM	52366
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/12/2020 1:48:49 AM	52366
Surr: Toluene-d8	100	70-130		%Rec	1	5/12/2020 1:48:49 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:09:00 AM
Lab ID: 2005393-010 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	10000	600		mg/Kg	200	5/12/2020 7:51:30 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	160	4.9		mg/Kg	1	5/12/2020 2:17:40 AM	52366
Surr: BFB	104	70-130		%Rec	1	5/12/2020 2:17:40 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	3400	99		mg/Kg	10	5/12/2020 2:24:55 PM	52381
Motor Oil Range Organics (MRO)	2500	490		mg/Kg	10	5/12/2020 2:24:55 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	10	5/12/2020 2:24:55 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	5/12/2020 2:17:40 AM	52366
Toluene	1.0	0.049		mg/Kg	1	5/12/2020 2:17:40 AM	52366
Ethylbenzene	2.6	0.049		mg/Kg	1	5/12/2020 2:17:40 AM	52366
Xylenes, Total	10	0.097		mg/Kg	1	5/12/2020 2:17:40 AM	52366
Surr: 1,2-Dichloroethane-d4	94.4	70-130		%Rec	1	5/12/2020 2:17:40 AM	52366
Surr: 4-Bromofluorobenzene	65.7	70-130	S	%Rec	1	5/12/2020 2:17:40 AM	52366
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/12/2020 2:17:40 AM	52366
Surr: Toluene-d8	99.2	70-130		%Rec	1	5/12/2020 2:17:40 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-1'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:11:00 AM
Lab ID: 2005393-011 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	7300	300		mg/Kg	100	5/11/2020 10:10:35 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	5.4	4.9		mg/Kg	1	5/12/2020 3:14:43 PM	52366
Surr: BFB	97.6	70-130		%Rec	1	5/12/2020 3:14:43 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	620	93		mg/Kg	10	5/12/2020 2:49:13 PM	52381
Motor Oil Range Organics (MRO)	500	460		mg/Kg	10	5/12/2020 2:49:13 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	10	5/12/2020 2:49:13 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 2:46:29 AM	52366
Toluene	ND	0.049		mg/Kg	1	5/12/2020 2:46:29 AM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 2:46:29 AM	52366
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2020 2:46:29 AM	52366
Surr: 1,2-Dichloroethane-d4	90.2	70-130		%Rec	1	5/12/2020 2:46:29 AM	52366
Surr: 4-Bromofluorobenzene	76.6	70-130		%Rec	1	5/12/2020 2:46:29 AM	52366
Surr: Dibromofluoromethane	108	70-130		%Rec	1	5/12/2020 2:46:29 AM	52366
Surr: Toluene-d8	100	70-130		%Rec	1	5/12/2020 2:46:29 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-1.5'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:13:00 AM
Lab ID: 2005393-012 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	4000	300		mg/Kg	100	5/11/2020 10:23:00 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 3:15:15 AM	52366
Surr: BFB	93.4	70-130		%Rec	1	5/12/2020 3:15:15 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	16	9.7		mg/Kg	1	5/12/2020 10:08:54 PM	52381
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2020 10:08:54 PM	52381
Surr: DNOP	99.0	55.1-146		%Rec	1	5/12/2020 10:08:54 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	5/12/2020 3:15:15 AM	52366
Toluene	ND	0.049		mg/Kg	1	5/12/2020 3:15:15 AM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 3:15:15 AM	52366
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2020 3:15:15 AM	52366
Surr: 1,2-Dichloroethane-d4	86.8	70-130		%Rec	1	5/12/2020 3:15:15 AM	52366
Surr: 4-Bromofluorobenzene	93.3	70-130		%Rec	1	5/12/2020 3:15:15 AM	52366
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/12/2020 3:15:15 AM	52366
Surr: Toluene-d8	99.3	70-130		%Rec	1	5/12/2020 3:15:15 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:20:00 AM
Lab ID: 2005393-013 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	27000	1500		mg/Kg	500	5/11/2020 10:35:25 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	9.1	5.0		mg/Kg	1	5/12/2020 3:44:10 AM	52366
Surr: BFB	97.5	70-130		%Rec	1	5/12/2020 3:44:10 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	8900	940		mg/Kg	100	5/12/2020 3:14:55 PM	52381
Motor Oil Range Organics (MRO)	6900	4700		mg/Kg	100	5/12/2020 3:14:55 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	100	5/12/2020 3:14:55 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 3:44:10 AM	52366
Toluene	ND	0.050		mg/Kg	1	5/12/2020 3:44:10 AM	52366
Ethylbenzene	0.077	0.050		mg/Kg	1	5/12/2020 3:44:10 AM	52366
Xylenes, Total	0.33	0.099		mg/Kg	1	5/12/2020 3:44:10 AM	52366
Surr: 1,2-Dichloroethane-d4	89.2	70-130		%Rec	1	5/12/2020 3:44:10 AM	52366
Surr: 4-Bromofluorobenzene	75.2	70-130		%Rec	1	5/12/2020 3:44:10 AM	52366
Surr: Dibromofluoromethane	104	70-130		%Rec	1	5/12/2020 3:44:10 AM	52366
Surr: Toluene-d8	98.8	70-130		%Rec	1	5/12/2020 3:44:10 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L5-1'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 10:27:00 AM
Lab ID: 2005393-014 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	250	61		mg/Kg	20	5/10/2020 5:14:44 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	5/12/2020 4:11:56 PM	52366
Surr: BFB	89.6	70-130		%Rec	1	5/12/2020 4:11:56 PM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	22	9.6		mg/Kg	1	5/12/2020 10:33:05 PM	52381
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2020 10:33:05 PM	52381
Surr: DNOP	103	55.1-146		%Rec	1	5/12/2020 10:33:05 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	5/12/2020 4:13:01 AM	52366
Toluene	ND	0.048		mg/Kg	1	5/12/2020 4:13:01 AM	52366
Ethylbenzene	ND	0.048		mg/Kg	1	5/12/2020 4:13:01 AM	52366
Xylenes, Total	ND	0.096		mg/Kg	1	5/12/2020 4:13:01 AM	52366
Surr: 1,2-Dichloroethane-d4	88.5	70-130		%Rec	1	5/12/2020 4:13:01 AM	52366
Surr: 4-Bromofluorobenzene	92.3	70-130		%Rec	1	5/12/2020 4:13:01 AM	52366
Surr: Dibromofluoromethane	106	70-130		%Rec	1	5/12/2020 4:13:01 AM	52366
Surr: Toluene-d8	96.6	70-130		%Rec	1	5/12/2020 4:13:01 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:09:00 AM
Lab ID: 2005393-015 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	10000	600		mg/Kg	200	5/11/2020 10:47:50 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2020 4:41:30 AM	52366
Surr: BFB	94.7	70-130		%Rec	1	5/12/2020 4:41:30 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	5000	99		mg/Kg	10	5/12/2020 3:39:21 PM	52381
Motor Oil Range Organics (MRO)	4900	500		mg/Kg	10	5/12/2020 3:39:21 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	10	5/12/2020 3:39:21 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 4:41:30 AM	52366
Toluene	ND	0.050		mg/Kg	1	5/12/2020 4:41:30 AM	52366
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2020 4:41:30 AM	52366
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2020 4:41:30 AM	52366
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%Rec	1	5/12/2020 4:41:30 AM	52366
Surr: 4-Bromofluorobenzene	93.4	70-130		%Rec	1	5/12/2020 4:41:30 AM	52366
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/12/2020 4:41:30 AM	52366
Surr: Toluene-d8	101	70-130		%Rec	1	5/12/2020 4:41:30 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L6-6"
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:18:00 AM
Lab ID: 2005393-016 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	390	60		mg/Kg	20	5/10/2020 5:39:26 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2020 5:10:03 AM	52366
Surr: BFB	94.5	70-130		%Rec	1	5/12/2020 5:10:03 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	11	9.3		mg/Kg	1	5/12/2020 10:57:27 PM	52381
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	5/12/2020 10:57:27 PM	52381
Surr: DNOP	87.5	55.1-146		%Rec	1	5/12/2020 10:57:27 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 5:10:03 AM	52366
Toluene	ND	0.050		mg/Kg	1	5/12/2020 5:10:03 AM	52366
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2020 5:10:03 AM	52366
Xylenes, Total	ND	0.10		mg/Kg	1	5/12/2020 5:10:03 AM	52366
Surr: 1,2-Dichloroethane-d4	88.5	70-130		%Rec	1	5/12/2020 5:10:03 AM	52366
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	1	5/12/2020 5:10:03 AM	52366
Surr: Dibromofluoromethane	105	70-130		%Rec	1	5/12/2020 5:10:03 AM	52366
Surr: Toluene-d8	100	70-130		%Rec	1	5/12/2020 5:10:03 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:21:00 AM
Lab ID: 2005393-017 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	50000	3000		mg/Kg	1E+	5/11/2020 11:00:15 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 5:38:39 AM	52366
Surr: BFB	96.4	70-130		%Rec	1	5/12/2020 5:38:39 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	11000	950		mg/Kg	100	5/12/2020 4:03:55 PM	52381
Motor Oil Range Organics (MRO)	12000	4700		mg/Kg	100	5/12/2020 4:03:55 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	100	5/12/2020 4:03:55 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 5:38:39 AM	52366
Toluene	ND	0.049		mg/Kg	1	5/12/2020 5:38:39 AM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 5:38:39 AM	52366
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2020 5:38:39 AM	52366
Surr: 1,2-Dichloroethane-d4	87.0	70-130		%Rec	1	5/12/2020 5:38:39 AM	52366
Surr: 4-Bromofluorobenzene	79.8	70-130		%Rec	1	5/12/2020 5:38:39 AM	52366
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/12/2020 5:38:39 AM	52366
Surr: Toluene-d8	100	70-130		%Rec	1	5/12/2020 5:38:39 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7-6"
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:27:00 AM
Lab ID: 2005393-018 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	1600	60		mg/Kg	20	5/10/2020 6:04:06 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 6:07:18 AM	52366
Surr: BFB	94.0	70-130		%Rec	1	5/12/2020 6:07:18 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	190	9.4		mg/Kg	1	5/12/2020 11:21:42 PM	52381
Motor Oil Range Organics (MRO)	120	47		mg/Kg	1	5/12/2020 11:21:42 PM	52381
Surr: DNOP	105	55.1-146		%Rec	1	5/12/2020 11:21:42 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	5/12/2020 6:07:18 AM	52366
Toluene	ND	0.049		mg/Kg	1	5/12/2020 6:07:18 AM	52366
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 6:07:18 AM	52366
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2020 6:07:18 AM	52366
Surr: 1,2-Dichloroethane-d4	87.5	70-130		%Rec	1	5/12/2020 6:07:18 AM	52366
Surr: 4-Bromofluorobenzene	91.0	70-130		%Rec	1	5/12/2020 6:07:18 AM	52366
Surr: Dibromofluoromethane	102	70-130		%Rec	1	5/12/2020 6:07:18 AM	52366
Surr: Toluene-d8	101	70-130		%Rec	1	5/12/2020 6:07:18 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L8-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:30:00 AM
Lab ID: 2005393-019 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	5800	150		mg/Kg	50	5/11/2020 11:12:39 PM	52371
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	15	5.0		mg/Kg	1	5/12/2020 6:35:51 AM	52366
Surr: BFB	98.2	70-130		%Rec	1	5/12/2020 6:35:51 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	17000	980		mg/Kg	100	5/12/2020 4:28:17 PM	52381
Motor Oil Range Organics (MRO)	16000	4900		mg/Kg	100	5/12/2020 4:28:17 PM	52381
Surr: DNOP	0	55.1-146	S	%Rec	100	5/12/2020 4:28:17 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 6:35:51 AM	52366
Toluene	ND	0.050		mg/Kg	1	5/12/2020 6:35:51 AM	52366
Ethylbenzene	0.051	0.050		mg/Kg	1	5/12/2020 6:35:51 AM	52366
Xylenes, Total	0.41	0.099		mg/Kg	1	5/12/2020 6:35:51 AM	52366
Surr: 1,2-Dichloroethane-d4	85.5	70-130		%Rec	1	5/12/2020 6:35:51 AM	52366
Surr: 4-Bromofluorobenzene	68.9	70-130	S	%Rec	1	5/12/2020 6:35:51 AM	52366
Surr: Dibromofluoromethane	101	70-130		%Rec	1	5/12/2020 6:35:51 AM	52366
Surr: Toluene-d8	99.1	70-130		%Rec	1	5/12/2020 6:35:51 AM	52366

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L8-6"
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:36:00 AM
Lab ID: 2005393-020 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	5/12/2020 12:24:45 PM	52410
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2020 7:04:18 AM	52366
Surr: BFB	94.7	70-130		%Rec	1	5/12/2020 7:04:18 AM	52366
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	120	9.3		mg/Kg	1	5/12/2020 11:45:55 PM	52381
Motor Oil Range Organics (MRO)	98	46		mg/Kg	1	5/12/2020 11:45:55 PM	52381
Surr: DNOP	104	55.1-146		%Rec	1	5/12/2020 11:45:55 PM	52381
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 7:04:18 AM	52366
Toluene	ND	0.050		mg/Kg	1	5/12/2020 7:04:18 AM	52366
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2020 7:04:18 AM	52366
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2020 7:04:18 AM	52366
Surr: 1,2-Dichloroethane-d4	90.1	70-130		%Rec	1	5/12/2020 7:04:18 AM	52366
Surr: 4-Bromofluorobenzene	92.0	70-130		%Rec	1	5/12/2020 7:04:18 AM	52366
Surr: Dibromofluoromethane	103	70-130		%Rec	1	5/12/2020 7:04:18 AM	52366
Surr: Toluene-d8	101	70-130		%Rec	1	5/12/2020 7:04:18 AM	52366

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L8-1'
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:41:00 AM
Lab ID: 2005393-021 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	5/12/2020 8:03:55 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/12/2020 8:48:44 AM	52384
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/12/2020 8:48:44 AM	52384
Surr: DNOP	95.1	55.1-146		%Rec	1	5/12/2020 8:48:44 AM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 7:02:50 PM	52369
Surr: BFB	99.0	66.6-105		%Rec	1	5/11/2020 7:02:50 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 7:02:50 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 7:02:50 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 7:02:50 PM	52369
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 7:02:50 PM	52369
Surr: 4-Bromofluorobenzene	94.4	80-120		%Rec	1	5/11/2020 7:02:50 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S1-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:46:00 AM
Lab ID: 2005393-022 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	16000	590		mg/Kg	200	5/12/2020 8:16:20 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	3400	98		mg/Kg	10	5/12/2020 10:00:29 AM	52384
Motor Oil Range Organics (MRO)	3300	490		mg/Kg	10	5/12/2020 10:00:29 AM	52384
Surr: DNOP	0	55.1-146	S	%Rec	10	5/12/2020 10:00:29 AM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 8:13:29 PM	52369
Surr: BFB	95.7	66.6-105		%Rec	1	5/11/2020 8:13:29 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/11/2020 8:13:29 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 8:13:29 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 8:13:29 PM	52369
Xylenes, Total	ND	0.097		mg/Kg	1	5/11/2020 8:13:29 PM	52369
Surr: 4-Bromofluorobenzene	89.7	80-120		%Rec	1	5/11/2020 8:13:29 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S1-6"
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:52:00 AM
Lab ID: 2005393-023 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	78	60		mg/Kg	20	5/12/2020 8:28:44 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	5/12/2020 10:48:17 AM	52384
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	5/12/2020 10:48:17 AM	52384
Surr: DNOP	98.8	55.1-146		%Rec	1	5/12/2020 10:48:17 AM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 9:24:25 PM	52369
Surr: BFB	97.0	66.6-105		%Rec	1	5/11/2020 9:24:25 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	5/11/2020 9:24:25 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 9:24:25 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 9:24:25 PM	52369
Xylenes, Total	ND	0.097		mg/Kg	1	5/11/2020 9:24:25 PM	52369
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	5/11/2020 9:24:25 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S2-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:54:00 AM
Lab ID: 2005393-024 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	6000	300		mg/Kg	100	5/12/2020 1:39:11 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	380	9.4		mg/Kg	1	5/12/2020 11:12:15 AM	52384
Motor Oil Range Organics (MRO)	460	47		mg/Kg	1	5/12/2020 11:12:15 AM	52384
Surr: DNOP	114	55.1-146		%Rec	1	5/12/2020 11:12:15 AM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 9:48:17 PM	52369
Surr: BFB	98.6	66.6-105		%Rec	1	5/11/2020 9:48:17 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 9:48:17 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 9:48:17 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 9:48:17 PM	52369
Xylenes, Total	ND	0.098		mg/Kg	1	5/11/2020 9:48:17 PM	52369
Surr: 4-Bromofluorobenzene	92.8	80-120		%Rec	1	5/11/2020 9:48:17 PM	52369

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S2-6"
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 11:59:00 AM
Lab ID: 2005393-025 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	5/12/2020 8:41:09 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	5/12/2020 12:00:14 PM	52384
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/12/2020 12:00:14 PM	52384
Surr: DNOP	102	55.1-146		%Rec	1	5/12/2020 12:00:14 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/11/2020 10:11:57 PM	52369
Surr: BFB	97.1	66.6-105		%Rec	1	5/11/2020 10:11:57 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 10:11:57 PM	52369
Toluene	ND	0.050		mg/Kg	1	5/11/2020 10:11:57 PM	52369
Ethylbenzene	ND	0.050		mg/Kg	1	5/11/2020 10:11:57 PM	52369
Xylenes, Total	ND	0.10		mg/Kg	1	5/11/2020 10:11:57 PM	52369
Surr: 4-Bromofluorobenzene	92.2	80-120		%Rec	1	5/11/2020 10:11:57 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S3-Surface
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 12:02:00 PM
Lab ID: 2005393-026 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	17000	600		mg/Kg	200	5/12/2020 8:53:33 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	570	96		mg/Kg	10	5/12/2020 12:24:12 PM	52384
Motor Oil Range Organics (MRO)	890	480		mg/Kg	10	5/12/2020 12:24:12 PM	52384
Surr: DNOP	0	55.1-146	S	%Rec	10	5/12/2020 12:24:12 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/11/2020 10:35:31 PM	52369
Surr: BFB	94.6	66.6-105		%Rec	1	5/11/2020 10:35:31 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 10:35:31 PM	52369
Toluene	ND	0.050		mg/Kg	1	5/11/2020 10:35:31 PM	52369
Ethylbenzene	ND	0.050		mg/Kg	1	5/11/2020 10:35:31 PM	52369
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 10:35:31 PM	52369
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	5/11/2020 10:35:31 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S3-6"
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 12:08:00 PM
Lab ID: 2005393-027 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1100	300		mg/Kg	100	5/12/2020 2:16:25 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	5/12/2020 12:48:21 PM	52384
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	5/12/2020 12:48:21 PM	52384
Surr: DNOP	85.7	55.1-146		%Rec	1	5/12/2020 12:48:21 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 10:59:18 PM	52369
Surr: BFB	98.7	66.6-105		%Rec	1	5/11/2020 10:59:18 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 10:59:18 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 10:59:18 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 10:59:18 PM	52369
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 10:59:18 PM	52369
Surr: 4-Bromofluorobenzene	93.6	80-120		%Rec	1	5/11/2020 10:59:18 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 2:12:00 PM
Lab ID: 2005393-028 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1300	300		mg/Kg	100	5/12/2020 2:53:38 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	21	9.4		mg/Kg	1	5/12/2020 1:12:23 PM	52384
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	5/12/2020 1:12:23 PM	52384
Surr: DNOP	97.5	55.1-146		%Rec	1	5/12/2020 1:12:23 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 11:23:18 PM	52369
Surr: BFB	97.1	66.6-105		%Rec	1	5/11/2020 11:23:18 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 11:23:18 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 11:23:18 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 11:23:18 PM	52369
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 11:23:18 PM	52369
Surr: 4-Bromofluorobenzene	93.0	80-120		%Rec	1	5/11/2020 11:23:18 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 2:17:00 PM
Lab ID: 2005393-029 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	120	60		mg/Kg	20	5/12/2020 9:05:57 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	25	9.9		mg/Kg	1	5/12/2020 1:36:26 PM	52384
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/12/2020 1:36:26 PM	52384
Surr: DNOP	95.0	55.1-146		%Rec	1	5/12/2020 1:36:26 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/11/2020 11:47:08 PM	52369
Surr: BFB	98.6	66.6-105		%Rec	1	5/11/2020 11:47:08 PM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/11/2020 11:47:08 PM	52369
Toluene	ND	0.049		mg/Kg	1	5/11/2020 11:47:08 PM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/11/2020 11:47:08 PM	52369
Xylenes, Total	ND	0.099		mg/Kg	1	5/11/2020 11:47:08 PM	52369
Surr: 4-Bromofluorobenzene	91.1	80-120		%Rec	1	5/11/2020 11:47:08 PM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 2:23:00 PM
Lab ID: 2005393-030 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	1600	300		mg/Kg	100	5/12/2020 3:18:27 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	40	9.2		mg/Kg	1	5/12/2020 2:00:31 PM	52384
Motor Oil Range Organics (MRO)	54	46		mg/Kg	1	5/12/2020 2:00:31 PM	52384
Surr: DNOP	93.2	55.1-146		%Rec	1	5/12/2020 2:00:31 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	5/12/2020 12:10:58 AM	52369
Surr: BFB	97.3	66.6-105		%Rec	1	5/12/2020 12:10:58 AM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 12:10:58 AM	52369
Toluene	ND	0.050		mg/Kg	1	5/12/2020 12:10:58 AM	52369
Ethylbenzene	ND	0.050		mg/Kg	1	5/12/2020 12:10:58 AM	52369
Xylenes, Total	ND	0.10		mg/Kg	1	5/12/2020 12:10:58 AM	52369
Surr: 4-Bromofluorobenzene	91.6	80-120		%Rec	1	5/12/2020 12:10:58 AM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 2:27:00 PM
Lab ID: 2005393-031 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	230	60		mg/Kg	20	5/13/2020 10:48:32 AM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	5/12/2020 2:24:32 PM	52384
Motor Oil Range Organics (MRO)	49	49		mg/Kg	1	5/12/2020 2:24:32 PM	52384
Surr: DNOP	91.6	55.1-146		%Rec	1	5/12/2020 2:24:32 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 1:22:31 AM	52369
Surr: BFB	103	66.6-105		%Rec	1	5/12/2020 1:22:31 AM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 1:22:31 AM	52369
Toluene	ND	0.049		mg/Kg	1	5/12/2020 1:22:31 AM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 1:22:31 AM	52369
Xylenes, Total	ND	0.099		mg/Kg	1	5/12/2020 1:22:31 AM	52369
Surr: 4-Bromofluorobenzene	97.3	80-120		%Rec	1	5/12/2020 1:22:31 AM	52369

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

Qualifiers:

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

Analytical Report
Lab Order **2005393**
Date Reported: **5/14/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Rattlesnake 13 12 FED 1H
Collection Date: 5/7/2020 2:30:00 PM
Lab ID: 2005393-032 **Matrix:** SOIL **Received Date:** 5/9/2020 7:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	570	300		mg/Kg	100	5/12/2020 3:43:17 PM	52410
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	16	9.9		mg/Kg	1	5/12/2020 2:48:37 PM	52384
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	5/12/2020 2:48:37 PM	52384
Surr: DNOP	98.0	55.1-146		%Rec	1	5/12/2020 2:48:37 PM	52384
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	5/12/2020 1:46:24 AM	52369
Surr: BFB	97.8	66.6-105		%Rec	1	5/12/2020 1:46:24 AM	52369
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	5/12/2020 1:46:24 AM	52369
Toluene	ND	0.049		mg/Kg	1	5/12/2020 1:46:24 AM	52369
Ethylbenzene	ND	0.049		mg/Kg	1	5/12/2020 1:46:24 AM	52369
Xylenes, Total	ND	0.098		mg/Kg	1	5/12/2020 1:46:24 AM	52369
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	5/12/2020 1:46:24 AM	52369

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**

14-May-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13 12 FED 1H

Sample ID: **MB-52371** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **52371** RunNo: **68789**

Prep Date: **5/10/2020** Analysis Date: **5/10/2020** SeqNo: **2380504** Units: **mg/Kg**

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

Sample ID: **LCS-52371** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **52371** RunNo: **68789**

Prep Date: **5/10/2020** Analysis Date: **5/10/2020** SeqNo: **2380505** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	90	110			

Sample ID: **MB-52410** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **52410** RunNo: **68818**

Prep Date: **5/12/2020** Analysis Date: **5/12/2020** SeqNo: **2382902** Units: **mg/Kg**

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

Sample ID: **LCS-52410** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **52410** RunNo: **68818**

Prep Date: **5/12/2020** Analysis Date: **5/12/2020** SeqNo: **2382903** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**
14-May-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12 FED 1H

Sample ID: **LCS-52381** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **52381** RunNo: **68809**
Prep Date: **5/11/2020** Analysis Date: **5/12/2020** SeqNo: **2381696** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	93.6	70	130			
Surr: DNOP	4.5		5.000		89.0	55.1	146			

Sample ID: **MB-52381** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **52381** RunNo: **68809**
Prep Date: **5/11/2020** Analysis Date: **5/12/2020** SeqNo: **2381697** 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		97.0	55.1	146			

Sample ID: **MB-52384** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **52384** RunNo: **68819**
Prep Date: **5/11/2020** Analysis Date: **5/12/2020** SeqNo: **2381742** 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	9.2		10.00		92.2	55.1	146			

Sample ID: **LCS-52384** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **52384** RunNo: **68819**
Prep Date: **5/11/2020** Analysis Date: **5/12/2020** SeqNo: **2381743** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.4	70	130			
Surr: DNOP	4.1		5.000		82.3	55.1	146			

Sample ID: **2005393-021AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L8-1'** Batch ID: **52384** RunNo: **68819**
Prep Date: **5/11/2020** Analysis Date: **5/12/2020** SeqNo: **2381748** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	10	49.80	0	97.3	47.4	136			
Surr: DNOP	4.5		4.980		91.0	55.1	146			

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**
14-May-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12 FED 1H

Sample ID: **2005393-021AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L8-1'** Batch ID: **52384** RunNo: **68819**
Prep Date: **5/11/2020** Analysis Date: **5/12/2020** SeqNo: **2381749** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.5	47.66	0	94.0	47.4	136	7.86	43.4	
Surr: DNOP	4.2		4.766		87.6	55.1	146	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**
14-May-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12 FED 1H

Sample ID: **mb-52369** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **52369** RunNo: **68802**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2380989** 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	980		1000		98.2	66.6	105			

Sample ID: **lcs-52369** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **52369** RunNo: **68802**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2380990** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.8	80	120			
Surr: BFB	1100		1000		106	66.6	105			S

Sample ID: **2005393-022ams** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S1-Surface** Batch ID: **52369** RunNo: **68802**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2380993** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	87.7	80	120			
Surr: BFB	1000		1000		104	66.6	105			

Sample ID: **2005393-022amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **S1-Surface** Batch ID: **52369** RunNo: **68802**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2380994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	24.78	0	89.9	80	120	1.54	20	
Surr: BFB	1000		991.1		102	66.6	105	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**
14-May-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12 FED 1H

Sample ID: **mb-52369**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **52369**	RunNo: **68802**
Prep Date: **5/9/2020**	Analysis Date: **5/11/2020**	SeqNo: **2381030** 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	0.94		1.000		94.1	80	120			

Sample ID: **LCS-52369**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **52369**	RunNo: **68802**
Prep Date: **5/9/2020**	Analysis Date: **5/11/2020**	SeqNo: **2381031** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	1.000	0	95.9	80	120			
Toluene	1.0	0.050	1.000	0	100	80	120			
Ethylbenzene	1.0	0.050	1.000	0	99.5	80	120			
Xylenes, Total	3.0	0.10	3.000	0	98.8	80	120			
Surr: 4-Bromofluorobenzene	0.94		1.000		93.8	80	120			

Sample ID: **2005393-021ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **L8-1'**	Batch ID: **52369**	RunNo: **68802**
Prep Date: **5/9/2020**	Analysis Date: **5/11/2020**	SeqNo: **2381033** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.83	0.025	0.9833	0	84.3	78.5	119			
Toluene	0.88	0.049	0.9833	0	89.3	75.7	123			
Ethylbenzene	0.88	0.049	0.9833	0	89.5	74.3	126			
Xylenes, Total	2.6	0.098	2.950	0	88.6	72.9	130			
Surr: 4-Bromofluorobenzene	0.92		0.9833		93.6	80	120			

Sample ID: **2005393-021amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **L8-1'**	Batch ID: **52369**	RunNo: **68802**
Prep Date: **5/9/2020**	Analysis Date: **5/11/2020**	SeqNo: **2381034** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.96	0.025	0.9872	0	97.7	78.5	119	15.1	20	
Toluene	1.0	0.049	0.9872	0	104	75.7	123	16.0	20	
Ethylbenzene	1.0	0.049	0.9872	0	104	74.3	126	15.0	20	
Xylenes, Total	3.1	0.099	2.962	0	104	72.9	130	16.0	20	
Surr: 4-Bromofluorobenzene	0.95		0.9872		95.8	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**
14-May-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12 FED 1H

Sample ID: **mb-52366** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **52366** RunNo: **68812**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381417** 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	0.44		0.5000		88.1	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.1	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: **lcs-52366** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **52366** RunNo: **68812**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381418** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.4	70	130			
Toluene	0.99	0.050	1.000	0	98.6	70	130			
Ethylbenzene	1.1	0.050	1.000	0	106	70	130			
Xylenes, Total	3.1	0.10	3.000	0	103	70	130			
Surr: 1,2-Dichloroethane-d4	0.45		0.5000		89.8	70	130			
Surr: 4-Bromofluorobenzene	0.46		0.5000		91.9	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.49		0.5000		98.7	70	130			

Sample ID: **2005393-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **L1- Surface** Batch ID: **52366** RunNo: **68812**
Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381476** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.94	0.12	0.9814	0	95.3	70	130			
Toluene	1.0	0.25	0.9814	0	107	70	130			
Ethylbenzene	1.3	0.25	0.9814	0.1945	108	70	130			
Xylenes, Total	4.2	0.49	2.944	1.101	106	70	130			
Surr: 1,2-Dichloroethane-d4	2.1		2.453		87.6	70	130			
Surr: 4-Bromofluorobenzene	2.0		2.453		81.5	70	130			
Surr: Dibromofluoromethane	2.5		2.453		103	70	130			
Surr: Toluene-d8	2.5		2.453		100	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**

14-May-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13 12 FED 1H

Sample ID: **2005393-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **L1- Surface** Batch ID: **52366** RunNo: **68812**

Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381477** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.81	0.12	0.9881	0	81.6	70	130	14.9	20	
Toluene	0.86	0.25	0.9881	0	86.7	70	130	20.0	20	R
Ethylbenzene	1.0	0.25	0.9881	0.1945	85.9	70	130	18.2	0	
Xylenes, Total	3.6	0.49	2.964	1.101	84.1	70	130	16.0	0	
Surr: 1,2-Dichloroethane-d4	2.2		2.470		88.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	2.0		2.470		81.1	70	130	0	0	
Surr: Dibromofluoromethane	2.5		2.470		101	70	130	0	0	
Surr: Toluene-d8	2.5		2.470		99.8	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2005393**

14-May-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13 12 FED 1H

Sample ID: **mb-52366** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **PBS** Batch ID: **52366** RunNo: **68812**

Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381443** 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	470		500.0		93.4	70	130			

Sample ID: **lcs-52366** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **LCSS** Batch ID: **52366** RunNo: **68812**

Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381444** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.0	70	130			
Surr: BFB	460		500.0		91.4	70	130			

Sample ID: **2005393-002ams** SampType: **MS** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **L1-1'** Batch ID: **52366** RunNo: **68812**

Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381499** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	24.90	0	79.2	70	130			
Surr: BFB	470		498.0		94.8	70	130			

Sample ID: **2005393-002amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **L1-1'** Batch ID: **52366** RunNo: **68812**

Prep Date: **5/9/2020** Analysis Date: **5/11/2020** SeqNo: **2381500** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	4.9	24.46	0	72.3	70	130	10.8	20	
Surr: BFB	460		489.2		93.2	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: **SMA-CARLSBAD** Work Order Number: **2005393** RcptNo: 1

Received By: **Isaiah Ortiz** **5/9/2020 7:15:00 AM** I_Ok

Completed By: **Isaiah Ortiz** **5/9/2020 7:44:35 AM** I_Ok

Reviewed By: 5/9/2020

Chain of Custody

1. Is Chain of Custody sufficiently 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: IO 5/9/20 (<2 or >12 unless noted)

    Adjusted?
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐

    Checked by:
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	1.4	Good	Not Present			

Chain-of-Custody Record

Client: SMA

Mailing Address: 201 S. Halagueno St. Carlsbad, NM 88220

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 3 day

Project Name: Rattlesnake 13-12 Fed 1H

Project #:

Project Manager: Ashley Maxwell

Sampler: Sebastian Orozco (SO)

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.4-0 [CF] 1.4 °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. 2005393	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)
5/7/20	9:33	Soil	L1 -Surface	4oz	Cool	-001	X	X					X			
	9:35		L1 - 1'			-002										
	9:39		L1 - 1.5'			-003										
	9:50		L2 - Surface			-004										
	9:53		L2 - 1'			-005										
	9:55		L2 - 1.5'			-006										
	9:58		L3 - Surface			-007										
	10:01		L3 - 1'			-008										
	10:05		L3 - 2'			-009										
	10:09		L4 - Surface			-010										
	10:11		L4 - 1'			-011										
↓	10:13	↓	L4 - 1.5'	↓	↓	-012	↓	↓					↓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
5/8	1300	Sebastian Orozco			5/8	1430
5/8	1900					
			IC	courier	5/9/20	0715

Remarks: Bill Devon Directly PO# 2085680

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.

Chain-of-Custody Record

Client: SMA

Mailing Address: 201 S. Halagueno St Carlsbad, NM 88220

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 3day

Project Name: Rattlesnake 13-12 Fed 1H

Project #:

Project Manager: Ashley Maxwell

Sampler: Sebastian Orozco (SO)

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.4-0 [F] / 1.4-0 (°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. 2005393	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)
5/7/22	10:20	Soil	L5-Surface	402	Cool	-013	X	X					X			
	10:27		L5-1'			-014										
	11:09		L6-Surface			-015										
	11:18		L6-6"			-016										
	11:21		L7-Surface			-017										
	11:27		L7-6"			-018										
	11:30		L8-Surface			-019										
	11:36		L8-6"			-020										
	11:41		L8-1'			-021										
	11:46		S1-Surface			-022										
	11:52		S1-6"			-023										
	11:54		S2-Surface			-024										

Date	Time	Relinquished by	Received by	Via	Date	Time
5/8	1300	Sebastian Orozco				
5/8	1900				5/8	1430

Remarks:

Bill Devon Directly WO# 208568

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.

Chain-of-Custody Record

Client: SMA

Mailing Address: 201 S. Halagueno St Carlsbad, NM, 88220

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 3 day

Project Name: Rattlesnake 13-12 Fed 1H

Project #:

Project Manager: Ashley Maxwell

Sampler: Sebastian Orozco (SO)

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.4-0 kf / 1.4 (°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. 2005393	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)
5/7/20	11:59	Soil	S2-6"	4oz	Cool	-025	X	X					X			
	12:02		S3-Surface			-026										
	12:08		S3-6"			-027										
	2:12		SW1			-028										
	2:17		SW2			-029										
	2:23		SW3			-030										
	2:27		SW4			-031										
	2:30		SW5			-032										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
5/8	1300	Sebastian Orozco				
5/8	1900				5/8	1430
				Courier	5/9/20	0715

Remarks: Bill Devon Directly WO# 20856800

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 18, 2020

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

RE: Rattlesnake 13 12 OrderNo.: 2006676

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 14 sample(s) on 6/12/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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 **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-2'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 9:10:00 AM
Lab ID: 2006676-001 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	3300	150		mg/Kg	50	6/17/2020 4:00:41 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	15	9.5		mg/Kg	1	6/13/2020 1:02:06 PM	53052
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/13/2020 1:02:06 PM	53052
Surr: DNOP	113	55.1-146		%Rec	1	6/13/2020 1:02:06 PM	53052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/13/2020 10:36:28 PM	53051
Surr: BFB	81.9	66.6-105		%Rec	1	6/13/2020 10:36:28 PM	53051
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	6/13/2020 10:36:28 PM	53051
Toluene	ND	0.049		mg/Kg	1	6/13/2020 10:36:28 PM	53051
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2020 10:36:28 PM	53051
Xylenes, Total	ND	0.098		mg/Kg	1	6/13/2020 10:36:28 PM	53051
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/13/2020 10:36:28 PM	53051

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-3'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 9:12:00 AM
Lab ID: 2006676-002 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	8700	300		mg/Kg	100	6/17/2020 4:13:02 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	6/13/2020 1:12:22 PM	53052
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/13/2020 1:12:22 PM	53052
Surr: DNOP	104	55.1-146		%Rec	1	6/13/2020 1:12:22 PM	53052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/13/2020 11:00:04 PM	53051
Surr: BFB	81.2	66.6-105		%Rec	1	6/13/2020 11:00:04 PM	53051
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	6/13/2020 11:00:04 PM	53051
Toluene	ND	0.049		mg/Kg	1	6/13/2020 11:00:04 PM	53051
Ethylbenzene	ND	0.049		mg/Kg	1	6/13/2020 11:00:04 PM	53051
Xylenes, Total	ND	0.097		mg/Kg	1	6/13/2020 11:00:04 PM	53051
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/13/2020 11:00:04 PM	53051

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-4'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 9:51:00 AM
Lab ID: 2006676-003 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	6600	300		mg/Kg	100	6/17/2020 4:25:22 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	6/13/2020 1:22:38 PM	53052
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/13/2020 1:22:38 PM	53052
Surr: DNOP	100	55.1-146		%Rec	1	6/13/2020 1:22:38 PM	53052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/13/2020 11:23:43 PM	53051
Surr: BFB	81.9	66.6-105		%Rec	1	6/13/2020 11:23:43 PM	53051
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	6/13/2020 11:23:43 PM	53051
Toluene	ND	0.050		mg/Kg	1	6/13/2020 11:23:43 PM	53051
Ethylbenzene	ND	0.050		mg/Kg	1	6/13/2020 11:23:43 PM	53051
Xylenes, Total	ND	0.099		mg/Kg	1	6/13/2020 11:23:43 PM	53051
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/13/2020 11:23:43 PM	53051

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1-5'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 9:52:00 AM
Lab ID: 2006676-004 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	3400	150		mg/Kg	50	6/17/2020 4:37:43 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/13/2020 1:33:13 PM	53052
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2020 1:33:13 PM	53052
Surr: DNOP	99.1	55.1-146		%Rec	1	6/13/2020 1:33:13 PM	53052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/13/2020 11:47:12 PM	53051
Surr: BFB	82.4	66.6-105		%Rec	1	6/13/2020 11:47:12 PM	53051
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	6/13/2020 11:47:12 PM	53051
Toluene	ND	0.048		mg/Kg	1	6/13/2020 11:47:12 PM	53051
Ethylbenzene	ND	0.048		mg/Kg	1	6/13/2020 11:47:12 PM	53051
Xylenes, Total	ND	0.096		mg/Kg	1	6/13/2020 11:47:12 PM	53051
Surr: 4-Bromofluorobenzene	106	80-120		%Rec	1	6/13/2020 11:47:12 PM	53051

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-2'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:00:00 AM
Lab ID: 2006676-005 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	10000	600		mg/Kg	200	6/17/2020 4:50:03 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	2400	190		mg/Kg	20	6/13/2020 1:43:42 PM	53052
Motor Oil Range Organics (MRO)	1600	970		mg/Kg	20	6/13/2020 1:43:42 PM	53052
Surr: DNOP	0	55.1-146	S	%Rec	20	6/13/2020 1:43:42 PM	53052
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/14/2020 12:10:37 AM	53051
Surr: BFB	80.6	66.6-105		%Rec	1	6/14/2020 12:10:37 AM	53051
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.023		mg/Kg	1	6/14/2020 12:10:37 AM	53051
Toluene	ND	0.046		mg/Kg	1	6/14/2020 12:10:37 AM	53051
Ethylbenzene	ND	0.046		mg/Kg	1	6/14/2020 12:10:37 AM	53051
Xylenes, Total	ND	0.093		mg/Kg	1	6/14/2020 12:10:37 AM	53051
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/14/2020 12:10:37 AM	53051

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-3'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:02:00 AM
Lab ID: 2006676-006 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	2900	150		mg/Kg	50	6/17/2020 5:02:23 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	39	9.6		mg/Kg	1	6/14/2020 1:58:38 PM	53056
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/14/2020 1:58:38 PM	53056
Surr: DNOP	145	55.1-146		%Rec	1	6/14/2020 1:58:38 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 2:55:13 AM	53054
Surr: BFB	81.9	66.6-105		%Rec	1	6/14/2020 2:55:13 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	6/14/2020 2:55:13 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 2:55:13 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 2:55:13 AM	53054
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2020 2:55:13 AM	53054
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/14/2020 2:55:13 AM	53054

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2-4'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:04:00 AM
Lab ID: 2006676-007 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	150	60		mg/Kg	20	6/15/2020 5:43:37 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/13/2020 3:16:54 PM	53056
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/13/2020 3:16:54 PM	53056
Surr: DNOP	89.0	55.1-146		%Rec	1	6/13/2020 3:16:54 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 4:05:38 AM	53054
Surr: BFB	83.2	66.6-105		%Rec	1	6/14/2020 4:05:38 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	6/14/2020 4:05:38 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 4:05:38 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 4:05:38 AM	53054
Xylenes, Total	ND	0.097		mg/Kg	1	6/14/2020 4:05:38 AM	53054
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/14/2020 4:05:38 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-3'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:26:00 AM
Lab ID: 2006676-008 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	440	60		mg/Kg	20	6/15/2020 5:56:02 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	12	9.3		mg/Kg	1	6/13/2020 3:27:17 PM	53056
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/13/2020 3:27:17 PM	53056
Surr: DNOP	100	55.1-146		%Rec	1	6/13/2020 3:27:17 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 5:15:59 AM	53054
Surr: BFB	81.5	66.6-105		%Rec	1	6/14/2020 5:15:59 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	6/14/2020 5:15:59 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 5:15:59 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 5:15:59 AM	53054
Xylenes, Total	ND	0.099		mg/Kg	1	6/14/2020 5:15:59 AM	53054
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/14/2020 5:15:59 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-4'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:29:00 AM
Lab ID: 2006676-009 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	5500	300		mg/Kg	100	6/17/2020 5:14:44 AM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	13	9.3		mg/Kg	1	6/13/2020 3:37:39 PM	53056
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/13/2020 3:37:39 PM	53056
Surr: DNOP	94.5	55.1-146		%Rec	1	6/13/2020 3:37:39 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/14/2020 5:39:37 AM	53054
Surr: BFB	82.5	66.6-105		%Rec	1	6/14/2020 5:39:37 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	6/14/2020 5:39:37 AM	53054
Toluene	ND	0.050		mg/Kg	1	6/14/2020 5:39:37 AM	53054
Ethylbenzene	ND	0.050		mg/Kg	1	6/14/2020 5:39:37 AM	53054
Xylenes, Total	ND	0.099		mg/Kg	1	6/14/2020 5:39:37 AM	53054
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/14/2020 5:39:37 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4-5'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:33:00 AM
Lab ID: 2006676-010 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	140	60		mg/Kg	20	6/15/2020 6:20:50 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	6/13/2020 3:47:59 PM	53056
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2020 3:47:59 PM	53056
Surr: DNOP	103	55.1-146		%Rec	1	6/13/2020 3:47:59 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 6:03:10 AM	53054
Surr: BFB	82.1	66.6-105		%Rec	1	6/14/2020 6:03:10 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	6/14/2020 6:03:10 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 6:03:10 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 6:03:10 AM	53054
Xylenes, Total	ND	0.099		mg/Kg	1	6/14/2020 6:03:10 AM	53054
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/14/2020 6:03:10 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L7-1'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 9:48:00 AM
Lab ID: 2006676-011 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	6/15/2020 6:33:15 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	6/13/2020 3:58:16 PM	53056
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/13/2020 3:58:16 PM	53056
Surr: DNOP	97.0	55.1-146		%Rec	1	6/13/2020 3:58:16 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 6:26:41 AM	53054
Surr: BFB	80.8	66.6-105		%Rec	1	6/14/2020 6:26:41 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	6/14/2020 6:26:41 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 6:26:41 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 6:26:41 AM	53054
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2020 6:26:41 AM	53054
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/14/2020 6:26:41 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S3-1'
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:50:00 AM
Lab ID: 2006676-012 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	ND	60		mg/Kg	20	6/15/2020 7:10:29 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	6/13/2020 4:08:33 PM	53056
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/13/2020 4:08:33 PM	53056
Surr: DNOP	102	55.1-146		%Rec	1	6/13/2020 4:08:33 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 6:50:12 AM	53054
Surr: BFB	80.8	66.6-105		%Rec	1	6/14/2020 6:50:12 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.024		mg/Kg	1	6/14/2020 6:50:12 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 6:50:12 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 6:50:12 AM	53054
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2020 6:50:12 AM	53054
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	6/14/2020 6:50:12 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:53:00 AM
Lab ID: 2006676-013 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	59		mg/Kg	20	6/15/2020 7:22:54 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	6/13/2020 4:18:48 PM	53056
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/13/2020 4:18:48 PM	53056
Surr: DNOP	134	55.1-146		%Rec	1	6/13/2020 4:18:48 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 7:13:43 AM	53054
Surr: BFB	81.7	66.6-105		%Rec	1	6/14/2020 7:13:43 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.024		mg/Kg	1	6/14/2020 7:13:43 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 7:13:43 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 7:13:43 AM	53054
Xylenes, Total	ND	0.098		mg/Kg	1	6/14/2020 7:13:43 AM	53054
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	6/14/2020 7:13:43 AM	53054

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

Qualifiers:

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

Analytical Report
Lab Order **2006676**
Date Reported: **6/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: Rattlesnake 13 12
Collection Date: 6/11/2020 10:55:00 AM
Lab ID: 2006676-014 **Matrix:** SOIL **Received Date:** 6/12/2020 9:35:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	6/15/2020 7:35:19 PM	53081
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	6/13/2020 4:29:00 PM	53056
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/13/2020 4:29:00 PM	53056
Surr: DNOP	112	55.1-146		%Rec	1	6/13/2020 4:29:00 PM	53056
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/14/2020 7:37:13 AM	53054
Surr: BFB	82.6	66.6-105		%Rec	1	6/14/2020 7:37:13 AM	53054
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Benzene	ND	0.025		mg/Kg	1	6/14/2020 7:37:13 AM	53054
Toluene	ND	0.049		mg/Kg	1	6/14/2020 7:37:13 AM	53054
Ethylbenzene	ND	0.049		mg/Kg	1	6/14/2020 7:37:13 AM	53054
Xylenes, Total	ND	0.099		mg/Kg	1	6/14/2020 7:37:13 AM	53054
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	6/14/2020 7:37:13 AM	53054

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **MB-53081**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **53081**	RunNo: **69665**							
Prep Date: **6/15/2020**	Analysis Date: **6/15/2020**	SeqNo: **2418351**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-53081**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **53081**	RunNo: **69665**							
Prep Date: **6/15/2020**	Analysis Date: **6/15/2020**	SeqNo: **2418352**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	94.4	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **LCS-53052** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **53052** RunNo: **69614**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2416221** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	62	10	50.00	0	125	70	130			
Surr: DNOP	5.6		5.000		113	55.1	146			

Sample ID: **MB-53052** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **53052** RunNo: **69614**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2416222** 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	13		10.00		134	55.1	146			

Sample ID: **2006676-006AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L2-3'** Batch ID: **53056** RunNo: **69614**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2416312** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	110	9.1	45.66	39.48	158	47.4	136			S
Surr: DNOP	5.4		4.566		117	55.1	146			

Sample ID: **2006676-006AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **L2-3'** Batch ID: **53056** RunNo: **69614**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2416313** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	88	10	49.80	39.48	97.5	47.4	136	23.4	43.4	
Surr: DNOP	5.9		4.980		118	55.1	146	0	0	

Sample ID: **LCS-53056** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **53056** RunNo: **69614**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2416335** 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	70	130			
Surr: DNOP	6.0		5.000		121	55.1	146			

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **MB-53056**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **53056**	RunNo: **69614**
Prep Date: **6/12/2020**	Analysis Date: **6/13/2020**	SeqNo: **2416336** 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	12		10.00		124	55.1	146			

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **mb-53051**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **53051**	RunNo: **69632**
Prep Date: **6/12/2020**	Analysis Date: **6/13/2020**	SeqNo: **2416965** 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	840		1000		83.5	66.6	105			

Sample ID: **lcs-53051**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **53051**	RunNo: **69632**
Prep Date: **6/12/2020**	Analysis Date: **6/13/2020**	SeqNo: **2416966** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.4	80	120			
Surr: BFB	930		1000		92.9	66.6	105			

Sample ID: **mb-53054**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **53054**	RunNo: **69632**
Prep Date: **6/12/2020**	Analysis Date: **6/14/2020**	SeqNo: **2416989** 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	820		1000		81.5	66.6	105			

Sample ID: **lcs-53054**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **53054**	RunNo: **69632**
Prep Date: **6/12/2020**	Analysis Date: **6/14/2020**	SeqNo: **2416990** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.7	80	120			
Surr: BFB	910		1000		91.1	66.6	105			

Sample ID: **2006676-007ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **L2-4'**	Batch ID: **53054**	RunNo: **69632**
Prep Date: **6/12/2020**	Analysis Date: **6/14/2020**	SeqNo: **2417014** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.63	0	81.6	80	120			
Surr: BFB	900		985.2		91.4	66.6	105			

Sample ID: **2006676-007amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **L2-4'**	Batch ID: **53054**	RunNo: **69658**
Prep Date: **6/12/2020**	Analysis Date: **6/15/2020**	SeqNo: **2417947** Units: **mg/Kg**

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

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **2006676-007amsd** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **L2-4'** Batch ID: **53054** RunNo: **69658**
Prep Date: **6/12/2020** Analysis Date: **6/15/2020** SeqNo: **2417947** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	4.9	24.63	0	82.1	80	120	0.586	20	
Surr: BFB	910		985.2		92.7	66.6	105	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **mb-53051** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **53051** RunNo: **69632**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2417131** 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	1.1		1.000		107	80	120			

Sample ID: **LCS-53051** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **53051** RunNo: **69632**
Prep Date: **6/12/2020** Analysis Date: **6/13/2020** SeqNo: **2417136** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.2	80	120			
Toluene	0.98	0.050	1.000	0	98.2	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.4	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.0	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		109	80	120			

Sample ID: **mb-53054** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **53054** RunNo: **69632**
Prep Date: **6/12/2020** Analysis Date: **6/14/2020** SeqNo: **2417174** 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	1.0		1.000		104	80	120			

Sample ID: **LCS-53054** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **53054** RunNo: **69632**
Prep Date: **6/12/2020** Analysis Date: **6/14/2020** SeqNo: **2417175** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.025	1.000	0	95.1	80	120			
Toluene	0.98	0.050	1.000	0	97.7	80	120			
Ethylbenzene	0.97	0.050	1.000	0	97.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.8	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		107	80	120			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2006676**
18-Jun-20

Client: Souder, Miller & Associates
Project: Rattlesnake 13 12

Sample ID: **2006676-006ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **L2-3'** Batch ID: **53054** RunNo: **69632**
Prep Date: **6/12/2020** Analysis Date: **6/14/2020** SeqNo: **2417178** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	0.9843	0	91.3	78.5	119			
Toluene	0.92	0.049	0.9843	0	93.4	75.7	123			
Ethylbenzene	0.91	0.049	0.9843	0	92.3	74.3	126			
Xylenes, Total	2.7	0.098	2.953	0	92.4	72.9	130			
Surr: 4-Bromofluorobenzene	1.0		0.9843		103	80	120			

Sample ID: **2006676-006amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **L2-3'** Batch ID: **53054** RunNo: **69632**
Prep Date: **6/12/2020** Analysis Date: **6/14/2020** SeqNo: **2417180** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9681	0	98.7	78.5	119	6.11	20	
Toluene	0.98	0.048	0.9681	0	101	75.7	123	6.47	20	
Ethylbenzene	0.99	0.048	0.9681	0	102	74.3	126	8.25	20	
Xylenes, Total	3.0	0.097	2.904	0	102	72.9	130	8.20	20	
Surr: 4-Bromofluorobenzene	1.0		0.9681		104	80	120	0	0	

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 2006676 RcptNo: 1

Received By: **Michelle Garcia** 6/12/2020 9:35:00 AM Michelle Garcia
Completed By: **Juan Rojas** 6/12/2020 10:01:18 AM
Reviewed By: JR 6/12/20

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: SPA 6.12.20

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good				

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 turn

Project Name: Rattlesnake 13-12

Project #:

Project Manager: Ashley Maxwell

Sampler: LAA

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.9+0.1CF=2.0 (°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. 7006676	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)
6/11/20	910	Soil	L1-2'	4oz		-001	X	X					X			
	912		L1-3'			-002										
	951		L1-4'			-003										
	952		L1-5'			-004										
	1000		L2-2'			-005										
	1002		L2-3'			-006										
	1004		L2-4'			-007										
	1026		L4-3'			-008										
	1029		L4-4'			-009										
	1033		L4-5'			-010										
	948		L7-1'			-011										
	1050		S3-1'			-012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					6/11/20	1330
6/11/20	1900			Courier	06/12/20	0935

Remarks: Direct Bill: Devon energy

1 of 2

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.

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 turn

Project Name: Rattlesnake 13-12

Project #:

Project Manager: Ashley Maxwell

Sampler: CAA

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.9+0.1=2.0 (°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.	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)
6/11/20	1053	Soil	SW1	4oz		2006676-013	X	X					X			
"	1055	"	SW2	"		-014	"	"					"			

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
					6/11/20	1330
Date:	Time:	Relinquished by:	Received by:	Via: courier	Date	Time
6/11/20	1900		Michelle Garcia		06/12/20	0935

Remarks: Direct Bill: Devon Energy
2 of 2

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: clients.hallenvironmental.com

September 18, 2020

Ashley Maxwell

Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL:
FAX:

RE: Rattlesnake 13-12 OrderNo.: 2009632

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 36 sample(s) on 9/11/2020 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com 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

Hall Environmental Analysis Laboratory, Inc.

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

CLIENT: Souder, Miller & Associates
Client Sample ID: CS1
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:00:00 AM
Lab ID: 2009632-001 **Matrix:** SOIL
Received Date: 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 3:46:00 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/14/2020 1:58:59 AM	55105
Surr: BFB	104	70-130		%Rec	1	9/14/2020 1:58:59 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/12/2020 10:36:34 AM	55109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/12/2020 10:36:34 AM	55109
Surr: DNOP	106	30.4-154		%Rec	1	9/12/2020 10:36:34 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 7:03:38 PM	55105
Toluene	ND	0.050		mg/Kg	1	9/12/2020 7:03:38 PM	55105
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 7:03:38 PM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 7:03:38 PM	55105
Surr: 1,2-Dichloroethane-d4	94.2	70-130		%Rec	1	9/12/2020 7:03:38 PM	55105
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/12/2020 7:03:38 PM	55105
Surr: Dibromofluoromethane	104	70-130		%Rec	1	9/12/2020 7:03:38 PM	55105
Surr: Toluene-d8	104	70-130		%Rec	1	9/12/2020 7:03:38 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS2
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:05:00 AM
Lab ID: 2009632-002 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	9/15/2020 3:58:22 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 7:32:05 PM	55105
Surr: BFB	102	70-130		%Rec	1	9/12/2020 7:32:05 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/12/2020 10:46:08 AM	55109
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/12/2020 10:46:08 AM	55109
Surr: DNOP	103	30.4-154		%Rec	1	9/12/2020 10:46:08 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 7:32:05 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 7:32:05 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 7:32:05 PM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 7:32:05 PM	55105
Surr: 1,2-Dichloroethane-d4	93.4	70-130		%Rec	1	9/12/2020 7:32:05 PM	55105
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	9/12/2020 7:32:05 PM	55105
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/12/2020 7:32:05 PM	55105
Surr: Toluene-d8	102	70-130		%Rec	1	9/12/2020 7:32:05 PM	55105

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS3
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:10:00 AM
Lab ID: 2009632-003 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	9/15/2020 4:10:42 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 8:00:30 PM	55105
Surr: BFB	101	70-130		%Rec	1	9/12/2020 8:00:30 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/12/2020 10:55:43 AM	55109
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/12/2020 10:55:43 AM	55109
Surr: DNOP	107	30.4-154		%Rec	1	9/12/2020 10:55:43 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	9/12/2020 8:00:30 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 8:00:30 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 8:00:30 PM	55105
Xylenes, Total	ND	0.098		mg/Kg	1	9/12/2020 8:00:30 PM	55105
Surr: 1,2-Dichloroethane-d4	89.5	70-130		%Rec	1	9/12/2020 8:00:30 PM	55105
Surr: 4-Bromofluorobenzene	99.4	70-130		%Rec	1	9/12/2020 8:00:30 PM	55105
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/12/2020 8:00:30 PM	55105
Surr: Toluene-d8	97.8	70-130		%Rec	1	9/12/2020 8:00:30 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS4
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:15:00 AM
Lab ID: 2009632-004 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 4:23:03 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 8:28:55 PM	55105
Surr: BFB	104	70-130		%Rec	1	9/12/2020 8:28:55 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/12/2020 11:05:19 AM	55109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/12/2020 11:05:19 AM	55109
Surr: DNOP	108	30.4-154		%Rec	1	9/12/2020 11:05:19 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 8:28:55 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 8:28:55 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 8:28:55 PM	55105
Xylenes, Total	ND	0.098		mg/Kg	1	9/12/2020 8:28:55 PM	55105
Surr: 1,2-Dichloroethane-d4	94.0	70-130		%Rec	1	9/12/2020 8:28:55 PM	55105
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/12/2020 8:28:55 PM	55105
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/12/2020 8:28:55 PM	55105
Surr: Toluene-d8	99.8	70-130		%Rec	1	9/12/2020 8:28:55 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS5
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:20:00 AM
Lab ID: 2009632-005 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 4:35:24 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 8:57:24 PM	55105
Surr: BFB	102	70-130		%Rec	1	9/12/2020 8:57:24 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/12/2020 11:14:57 AM	55109
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/12/2020 11:14:57 AM	55109
Surr: DNOP	108	30.4-154		%Rec	1	9/12/2020 11:14:57 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 8:57:24 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 8:57:24 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 8:57:24 PM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 8:57:24 PM	55105
Surr: 1,2-Dichloroethane-d4	97.3	70-130		%Rec	1	9/12/2020 8:57:24 PM	55105
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/12/2020 8:57:24 PM	55105
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/12/2020 8:57:24 PM	55105
Surr: Toluene-d8	102	70-130		%Rec	1	9/12/2020 8:57:24 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS6
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:25:00 AM
Lab ID: 2009632-006 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 4:47:45 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 9:26:04 PM	55105
Surr: BFB	101	70-130		%Rec	1	9/12/2020 9:26:04 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/12/2020 11:24:36 AM	55109
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/12/2020 11:24:36 AM	55109
Surr: DNOP	121	30.4-154		%Rec	1	9/12/2020 11:24:36 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 9:26:04 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 9:26:04 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 9:26:04 PM	55105
Xylenes, Total	ND	0.098		mg/Kg	1	9/12/2020 9:26:04 PM	55105
Surr: 1,2-Dichloroethane-d4	91.1	70-130		%Rec	1	9/12/2020 9:26:04 PM	55105
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/12/2020 9:26:04 PM	55105
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/12/2020 9:26:04 PM	55105
Surr: Toluene-d8	104	70-130		%Rec	1	9/12/2020 9:26:04 PM	55105

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS7
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:30:00 AM
Lab ID: 2009632-007 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	59		mg/Kg	20	9/15/2020 5:00:05 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2020 9:54:35 PM	55105
Surr: BFB	101	70-130		%Rec	1	9/12/2020 9:54:35 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/12/2020 11:34:16 AM	55109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/12/2020 11:34:16 AM	55109
Surr: DNOP	98.6	30.4-154		%Rec	1	9/12/2020 11:34:16 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 9:54:35 PM	55105
Toluene	ND	0.050		mg/Kg	1	9/12/2020 9:54:35 PM	55105
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 9:54:35 PM	55105
Xylenes, Total	ND	0.10		mg/Kg	1	9/12/2020 9:54:35 PM	55105
Surr: 1,2-Dichloroethane-d4	94.1	70-130		%Rec	1	9/12/2020 9:54:35 PM	55105
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/12/2020 9:54:35 PM	55105
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/12/2020 9:54:35 PM	55105
Surr: Toluene-d8	101	70-130		%Rec	1	9/12/2020 9:54:35 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS8
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:35:00 AM
Lab ID: 2009632-008 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 5:37:07 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 10:22:59 PM	55105
Surr: BFB	99.9	70-130		%Rec	1	9/12/2020 10:22:59 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/12/2020 11:43:58 AM	55109
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/12/2020 11:43:58 AM	55109
Surr: DNOP	108	30.4-154		%Rec	1	9/12/2020 11:43:58 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	9/12/2020 10:22:59 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 10:22:59 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 10:22:59 PM	55105
Xylenes, Total	ND	0.097		mg/Kg	1	9/12/2020 10:22:59 PM	55105
Surr: 1,2-Dichloroethane-d4	97.9	70-130		%Rec	1	9/12/2020 10:22:59 PM	55105
Surr: 4-Bromofluorobenzene	98.3	70-130		%Rec	1	9/12/2020 10:22:59 PM	55105
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/12/2020 10:22:59 PM	55105
Surr: Toluene-d8	99.5	70-130		%Rec	1	9/12/2020 10:22:59 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS9
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:40:00 AM
Lab ID: 2009632-009 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 5:49:29 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/12/2020 10:51:30 PM	55105
Surr: BFB	103	70-130		%Rec	1	9/12/2020 10:51:30 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/12/2020 11:53:42 AM	55109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/12/2020 11:53:42 AM	55109
Surr: DNOP	125	30.4-154		%Rec	1	9/12/2020 11:53:42 AM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.025		mg/Kg	1	9/12/2020 10:51:30 PM	55105
Toluene	ND	0.050		mg/Kg	1	9/12/2020 10:51:30 PM	55105
Ethylbenzene	ND	0.050		mg/Kg	1	9/12/2020 10:51:30 PM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/12/2020 10:51:30 PM	55105
Surr: 1,2-Dichloroethane-d4	97.5	70-130		%Rec	1	9/12/2020 10:51:30 PM	55105
Surr: 4-Bromofluorobenzene	106	70-130		%Rec	1	9/12/2020 10:51:30 PM	55105
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/12/2020 10:51:30 PM	55105
Surr: Toluene-d8	102	70-130		%Rec	1	9/12/2020 10:51:30 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS10
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:45:00 AM
Lab ID: 2009632-010 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 6:01:50 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **DJF**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/12/2020 11:20:05 PM	55105
Surr: BFB	101	70-130		%Rec	1	9/12/2020 11:20:05 PM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/12/2020 12:03:28 PM	55109
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/12/2020 12:03:28 PM	55109
Surr: DNOP	113	30.4-154		%Rec	1	9/12/2020 12:03:28 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **DJF**	
Benzene	ND	0.024		mg/Kg	1	9/12/2020 11:20:05 PM	55105
Toluene	ND	0.049		mg/Kg	1	9/12/2020 11:20:05 PM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/12/2020 11:20:05 PM	55105
Xylenes, Total	ND	0.097		mg/Kg	1	9/12/2020 11:20:05 PM	55105
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%Rec	1	9/12/2020 11:20:05 PM	55105
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/12/2020 11:20:05 PM	55105
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/12/2020 11:20:05 PM	55105
Surr: Toluene-d8	99.2	70-130		%Rec	1	9/12/2020 11:20:05 PM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS11
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:50:00 AM
Lab ID: 2009632-011 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 6:14:10 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 2:27:31 AM	55105
Surr: BFB	106	70-130		%Rec	1	9/14/2020 2:27:31 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/12/2020 12:13:17 PM	55109
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/12/2020 12:13:17 PM	55109
Surr: DNOP	111	30.4-154		%Rec	1	9/12/2020 12:13:17 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 2:27:31 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 2:27:31 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 2:27:31 AM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 2:27:31 AM	55105
Surr: 1,2-Dichloroethane-d4	96.5	70-130		%Rec	1	9/14/2020 2:27:31 AM	55105
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/14/2020 2:27:31 AM	55105
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/14/2020 2:27:31 AM	55105
Surr: Toluene-d8	102	70-130		%Rec	1	9/14/2020 2:27:31 AM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS12
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 10:55:00 AM
Lab ID: 2009632-012 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 6:26:36 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 2:56:03 AM	55105
Surr: BFB	102	70-130		%Rec	1	9/14/2020 2:56:03 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/12/2020 12:23:06 PM	55109
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/12/2020 12:23:06 PM	55109
Surr: DNOP	101	30.4-154		%Rec	1	9/12/2020 12:23:06 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 2:56:03 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 2:56:03 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 2:56:03 AM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 2:56:03 AM	55105
Surr: 1,2-Dichloroethane-d4	96.8	70-130		%Rec	1	9/14/2020 2:56:03 AM	55105
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	9/14/2020 2:56:03 AM	55105
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/14/2020 2:56:03 AM	55105
Surr: Toluene-d8	101	70-130		%Rec	1	9/14/2020 2:56:03 AM	55105

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS13
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:00:00 AM
Lab ID: 2009632-013 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/15/2020 6:38:57 PM	55172
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/14/2020 3:24:29 AM	55105
Surr: BFB	99.7	70-130		%Rec	1	9/14/2020 3:24:29 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/12/2020 12:32:58 PM	55109
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/12/2020 12:32:58 PM	55109
Surr: DNOP	93.9	30.4-154		%Rec	1	9/12/2020 12:32:58 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 3:24:29 AM	55105
Toluene	ND	0.050		mg/Kg	1	9/14/2020 3:24:29 AM	55105
Ethylbenzene	ND	0.050		mg/Kg	1	9/14/2020 3:24:29 AM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 3:24:29 AM	55105
Surr: 1,2-Dichloroethane-d4	95.9	70-130		%Rec	1	9/14/2020 3:24:29 AM	55105
Surr: 4-Bromofluorobenzene	99.2	70-130		%Rec	1	9/14/2020 3:24:29 AM	55105
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/14/2020 3:24:29 AM	55105
Surr: Toluene-d8	100	70-130		%Rec	1	9/14/2020 3:24:29 AM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS14
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:05:00 AM
Lab ID: 2009632-014 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 10:45:47 AM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 3:52:48 AM	55105
Surr: BFB	102	70-130		%Rec	1	9/14/2020 3:52:48 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/12/2020 12:42:53 PM	55109
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/12/2020 12:42:53 PM	55109
Surr: DNOP	104	30.4-154		%Rec	1	9/12/2020 12:42:53 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 3:52:48 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 3:52:48 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 3:52:48 AM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 3:52:48 AM	55105
Surr: 1,2-Dichloroethane-d4	92.5	70-130		%Rec	1	9/14/2020 3:52:48 AM	55105
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/14/2020 3:52:48 AM	55105
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/14/2020 3:52:48 AM	55105
Surr: Toluene-d8	100	70-130		%Rec	1	9/14/2020 3:52:48 AM	55105

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS15
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:10:00 AM
Lab ID: 2009632-015 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 10:58:08 AM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 4:21:13 AM	55105
Surr: BFB	100	70-130		%Rec	1	9/14/2020 4:21:13 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/12/2020 12:52:50 PM	55109
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/12/2020 12:52:50 PM	55109
Surr: DNOP	96.8	30.4-154		%Rec	1	9/12/2020 12:52:50 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 4:21:13 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 4:21:13 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 4:21:13 AM	55105
Xylenes, Total	ND	0.098		mg/Kg	1	9/14/2020 4:21:13 AM	55105
Surr: 1,2-Dichloroethane-d4	96.4	70-130		%Rec	1	9/14/2020 4:21:13 AM	55105
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	9/14/2020 4:21:13 AM	55105
Surr: Dibromofluoromethane	107	70-130		%Rec	1	9/14/2020 4:21:13 AM	55105
Surr: Toluene-d8	101	70-130		%Rec	1	9/14/2020 4:21:13 AM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS16
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:15:00 AM
Lab ID: 2009632-016 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 11:35:09 AM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 4:49:41 AM	55105
Surr: BFB	103	70-130		%Rec	1	9/14/2020 4:49:41 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/12/2020 1:02:49 PM	55109
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/12/2020 1:02:49 PM	55109
Surr: DNOP	93.8	30.4-154		%Rec	1	9/12/2020 1:02:49 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/14/2020 4:49:41 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 4:49:41 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 4:49:41 AM	55105
Xylenes, Total	ND	0.097		mg/Kg	1	9/14/2020 4:49:41 AM	55105
Surr: 1,2-Dichloroethane-d4	93.7	70-130		%Rec	1	9/14/2020 4:49:41 AM	55105
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	9/14/2020 4:49:41 AM	55105
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/14/2020 4:49:41 AM	55105
Surr: Toluene-d8	102	70-130		%Rec	1	9/14/2020 4:49:41 AM	55105

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS17
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:20:00 AM
Lab ID: 2009632-017 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 12:36:49 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 5:18:12 AM	55105
Surr: BFB	98.6	70-130		%Rec	1	9/14/2020 5:18:12 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	9/12/2020 1:12:58 PM	55109
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/12/2020 1:12:58 PM	55109
Surr: DNOP	111	30.4-154		%Rec	1	9/12/2020 1:12:58 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 5:18:12 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 5:18:12 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 5:18:12 AM	55105
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 5:18:12 AM	55105
Surr: 1,2-Dichloroethane-d4	93.9	70-130		%Rec	1	9/14/2020 5:18:12 AM	55105
Surr: 4-Bromofluorobenzene	98.4	70-130		%Rec	1	9/14/2020 5:18:12 AM	55105
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/14/2020 5:18:12 AM	55105
Surr: Toluene-d8	100	70-130		%Rec	1	9/14/2020 5:18:12 AM	55105

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS18
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:25:00 AM
Lab ID: 2009632-018 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 12:49:09 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 5:46:48 AM	55105
Surr: BFB	100	70-130		%Rec	1	9/14/2020 5:46:48 AM	55105
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **CLP**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/12/2020 1:23:07 PM	55109
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/12/2020 1:23:07 PM	55109
Surr: DNOP	93.2	30.4-154		%Rec	1	9/12/2020 1:23:07 PM	55109
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/14/2020 5:46:48 AM	55105
Toluene	ND	0.049		mg/Kg	1	9/14/2020 5:46:48 AM	55105
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 5:46:48 AM	55105
Xylenes, Total	ND	0.097		mg/Kg	1	9/14/2020 5:46:48 AM	55105
Surr: 1,2-Dichloroethane-d4	91.9	70-130		%Rec	1	9/14/2020 5:46:48 AM	55105
Surr: 4-Bromofluorobenzene	96.6	70-130		%Rec	1	9/14/2020 5:46:48 AM	55105
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/14/2020 5:46:48 AM	55105
Surr: Toluene-d8	103	70-130		%Rec	1	9/14/2020 5:46:48 AM	55105

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS19
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:30:00 AM
Lab ID: 2009632-019 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 1:01:30 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/14/2020 8:13:45 PM	55111
Surr: BFB	102	70-130		%Rec	1	9/14/2020 8:13:45 PM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/14/2020 11:24:26 AM	55115
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/14/2020 11:24:26 AM	55115
Surr: DNOP	91.8	30.4-154		%Rec	1	9/14/2020 11:24:26 AM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 8:13:45 PM	55111
Toluene	ND	0.050		mg/Kg	1	9/14/2020 8:13:45 PM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/14/2020 8:13:45 PM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 8:13:45 PM	55111
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%Rec	1	9/14/2020 8:13:45 PM	55111
Surr: 4-Bromofluorobenzene	97.7	70-130		%Rec	1	9/14/2020 8:13:45 PM	55111
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/14/2020 8:13:45 PM	55111
Surr: Toluene-d8	98.0	70-130		%Rec	1	9/14/2020 8:13:45 PM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS20
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:35:00 AM
Lab ID: 2009632-020 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 1:13:51 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/14/2020 9:38:55 PM	55111
Surr: BFB	100	70-130		%Rec	1	9/14/2020 9:38:55 PM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/14/2020 11:33:56 AM	55115
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/14/2020 11:33:56 AM	55115
Surr: DNOP	85.8	30.4-154		%Rec	1	9/14/2020 11:33:56 AM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 9:38:55 PM	55111
Toluene	ND	0.050		mg/Kg	1	9/14/2020 9:38:55 PM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/14/2020 9:38:55 PM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 9:38:55 PM	55111
Surr: 1,2-Dichloroethane-d4	88.2	70-130		%Rec	1	9/14/2020 9:38:55 PM	55111
Surr: 4-Bromofluorobenzene	98.5	70-130		%Rec	1	9/14/2020 9:38:55 PM	55111
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/14/2020 9:38:55 PM	55111
Surr: Toluene-d8	96.9	70-130		%Rec	1	9/14/2020 9:38:55 PM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS21
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:40:00 AM
Lab ID: 2009632-021 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	61		mg/Kg	20	9/16/2020 1:26:12 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/14/2020 11:04:17 PM	55111
Surr: BFB	103	70-130		%Rec	1	9/14/2020 11:04:17 PM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	9/14/2020 11:43:30 AM	55115
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	9/14/2020 11:43:30 AM	55115
Surr: DNOP	103	30.4-154		%Rec	1	9/14/2020 11:43:30 AM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/14/2020 11:04:17 PM	55111
Toluene	ND	0.049		mg/Kg	1	9/14/2020 11:04:17 PM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/14/2020 11:04:17 PM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/14/2020 11:04:17 PM	55111
Surr: 1,2-Dichloroethane-d4	91.3	70-130		%Rec	1	9/14/2020 11:04:17 PM	55111
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/14/2020 11:04:17 PM	55111
Surr: Dibromofluoromethane	104	70-130		%Rec	1	9/14/2020 11:04:17 PM	55111
Surr: Toluene-d8	100	70-130		%Rec	1	9/14/2020 11:04:17 PM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS22
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:45:00 AM
Lab ID: 2009632-022 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	61		mg/Kg	20	9/16/2020 1:38:32 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/15/2020 1:26:44 AM	55111
Surr: BFB	102	70-130		%Rec	1	9/15/2020 1:26:44 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/14/2020 11:53:03 AM	55115
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/14/2020 11:53:03 AM	55115
Surr: DNOP	93.4	30.4-154		%Rec	1	9/14/2020 11:53:03 AM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/15/2020 1:26:44 AM	55111
Toluene	ND	0.048		mg/Kg	1	9/15/2020 1:26:44 AM	55111
Ethylbenzene	ND	0.048		mg/Kg	1	9/15/2020 1:26:44 AM	55111
Xylenes, Total	ND	0.097		mg/Kg	1	9/15/2020 1:26:44 AM	55111
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	1	9/15/2020 1:26:44 AM	55111
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/15/2020 1:26:44 AM	55111
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/15/2020 1:26:44 AM	55111
Surr: Toluene-d8	99.0	70-130		%Rec	1	9/15/2020 1:26:44 AM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS23
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:50:00 AM
Lab ID: 2009632-023 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	59		mg/Kg	20	9/16/2020 1:50:53 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 1:55:06 AM	55111
Surr: BFB	98.8	70-130		%Rec	1	9/15/2020 1:55:06 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.9		mg/Kg	1	9/14/2020 12:02:35 PM	55115
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/14/2020 12:02:35 PM	55115
Surr: DNOP	104	30.4-154		%Rec	1	9/14/2020 12:02:35 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 1:55:06 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 1:55:06 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 1:55:06 AM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/15/2020 1:55:06 AM	55111
Surr: 1,2-Dichloroethane-d4	90.9	70-130		%Rec	1	9/15/2020 1:55:06 AM	55111
Surr: 4-Bromofluorobenzene	100	70-130		%Rec	1	9/15/2020 1:55:06 AM	55111
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/15/2020 1:55:06 AM	55111
Surr: Toluene-d8	100	70-130		%Rec	1	9/15/2020 1:55:06 AM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS24
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 11:55:00 AM
Lab ID: 2009632-024 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	59		mg/Kg	20	9/16/2020 2:03:14 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 2:23:31 AM	55111
Surr: BFB	98.3	70-130		%Rec	1	9/15/2020 2:23:31 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	9/14/2020 12:12:11 PM	55115
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/14/2020 12:12:11 PM	55115
Surr: DNOP	111	30.4-154		%Rec	1	9/14/2020 12:12:11 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 2:23:31 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 2:23:31 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 2:23:31 AM	55111
Xylenes, Total	ND	0.098		mg/Kg	1	9/15/2020 2:23:31 AM	55111
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%Rec	1	9/15/2020 2:23:31 AM	55111
Surr: 4-Bromofluorobenzene	97.9	70-130		%Rec	1	9/15/2020 2:23:31 AM	55111
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/15/2020 2:23:31 AM	55111
Surr: Toluene-d8	97.4	70-130		%Rec	1	9/15/2020 2:23:31 AM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS25
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:00:00 PM
Lab ID: 2009632-025 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 2:40:16 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/15/2020 2:51:56 AM	55111
Surr: BFB	102	70-130		%Rec	1	9/15/2020 2:51:56 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	9/14/2020 12:21:46 PM	55115
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	9/14/2020 12:21:46 PM	55115
Surr: DNOP	131	30.4-154		%Rec	1	9/14/2020 12:21:46 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 2:51:56 AM	55111
Toluene	ND	0.050		mg/Kg	1	9/15/2020 2:51:56 AM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/15/2020 2:51:56 AM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/15/2020 2:51:56 AM	55111
Surr: 1,2-Dichloroethane-d4	91.8	70-130		%Rec	1	9/15/2020 2:51:56 AM	55111
Surr: 4-Bromofluorobenzene	99.5	70-130		%Rec	1	9/15/2020 2:51:56 AM	55111
Surr: Dibromofluoromethane	103	70-130		%Rec	1	9/15/2020 2:51:56 AM	55111
Surr: Toluene-d8	104	70-130		%Rec	1	9/15/2020 2:51:56 AM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: CS26
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:05:00 PM
Lab ID: 2009632-026 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 2:52:36 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 3:20:23 AM	55111
Surr: BFB	100	70-130		%Rec	1	9/15/2020 3:20:23 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/14/2020 12:31:22 PM	55115
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/14/2020 12:31:22 PM	55115
Surr: DNOP	124	30.4-154		%Rec	1	9/14/2020 12:31:22 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 3:20:23 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 3:20:23 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 3:20:23 AM	55111
Xylenes, Total	ND	0.098		mg/Kg	1	9/15/2020 3:20:23 AM	55111
Surr: 1,2-Dichloroethane-d4	94.9	70-130		%Rec	1	9/15/2020 3:20:23 AM	55111
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/15/2020 3:20:23 AM	55111
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/15/2020 3:20:23 AM	55111
Surr: Toluene-d8	96.4	70-130		%Rec	1	9/15/2020 3:20:23 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 1
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:10:00 PM
Lab ID: 2009632-027 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 3:04:57 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/15/2020 3:48:50 AM	55111
Surr: BFB	102	70-130		%Rec	1	9/15/2020 3:48:50 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	9/14/2020 12:40:59 PM	55115
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/14/2020 12:40:59 PM	55115
Surr: DNOP	108	30.4-154		%Rec	1	9/14/2020 12:40:59 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 3:48:50 AM	55111
Toluene	ND	0.050		mg/Kg	1	9/15/2020 3:48:50 AM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/15/2020 3:48:50 AM	55111
Xylenes, Total	ND	0.10		mg/Kg	1	9/15/2020 3:48:50 AM	55111
Surr: 1,2-Dichloroethane-d4	93.1	70-130		%Rec	1	9/15/2020 3:48:50 AM	55111
Surr: 4-Bromofluorobenzene	102	70-130		%Rec	1	9/15/2020 3:48:50 AM	55111
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/15/2020 3:48:50 AM	55111
Surr: Toluene-d8	103	70-130		%Rec	1	9/15/2020 3:48:50 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 2
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:15:00 PM
Lab ID: 2009632-028 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	61		mg/Kg	20	9/16/2020 3:17:16 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/15/2020 4:17:18 AM	55111
Surr: BFB	103	70-130		%Rec	1	9/15/2020 4:17:18 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	9/14/2020 12:50:35 PM	55115
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/14/2020 12:50:35 PM	55115
Surr: DNOP	101	30.4-154		%Rec	1	9/14/2020 12:50:35 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 4:17:18 AM	55111
Toluene	ND	0.050		mg/Kg	1	9/15/2020 4:17:18 AM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/15/2020 4:17:18 AM	55111
Xylenes, Total	ND	0.10		mg/Kg	1	9/15/2020 4:17:18 AM	55111
Surr: 1,2-Dichloroethane-d4	94.7	70-130		%Rec	1	9/15/2020 4:17:18 AM	55111
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/15/2020 4:17:18 AM	55111
Surr: Dibromofluoromethane	109	70-130		%Rec	1	9/15/2020 4:17:18 AM	55111
Surr: Toluene-d8	101	70-130		%Rec	1	9/15/2020 4:17:18 AM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 3
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:20:00 PM
Lab ID: 2009632-029 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	61		mg/Kg	20	9/16/2020 3:29:37 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 4:45:48 AM	55111
Surr: BFB	105	70-130		%Rec	1	9/15/2020 4:45:48 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	9/14/2020 1:00:11 PM	55115
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/14/2020 1:00:11 PM	55115
Surr: DNOP	115	30.4-154		%Rec	1	9/14/2020 1:00:11 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 4:45:48 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 4:45:48 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 4:45:48 AM	55111
Xylenes, Total	ND	0.098		mg/Kg	1	9/15/2020 4:45:48 AM	55111
Surr: 1,2-Dichloroethane-d4	91.7	70-130		%Rec	1	9/15/2020 4:45:48 AM	55111
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/15/2020 4:45:48 AM	55111
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/15/2020 4:45:48 AM	55111
Surr: Toluene-d8	100	70-130		%Rec	1	9/15/2020 4:45:48 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 4
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:25:00 PM
Lab ID: 2009632-030 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **CAS**	
Chloride	ND	60		mg/Kg	20	9/16/2020 3:41:57 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 5:14:18 AM	55111
Surr: BFB	104	70-130		%Rec	1	9/15/2020 5:14:18 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.0		mg/Kg	1	9/15/2020 12:18:25 PM	55115
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	9/15/2020 12:18:25 PM	55115
Surr: DNOP	118	30.4-154		%Rec	1	9/15/2020 12:18:25 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/15/2020 5:14:18 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 5:14:18 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 5:14:18 AM	55111
Xylenes, Total	ND	0.098		mg/Kg	1	9/15/2020 5:14:18 AM	55111
Surr: 1,2-Dichloroethane-d4	89.0	70-130		%Rec	1	9/15/2020 5:14:18 AM	55111
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/15/2020 5:14:18 AM	55111
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/15/2020 5:14:18 AM	55111
Surr: Toluene-d8	103	70-130		%Rec	1	9/15/2020 5:14:18 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 5
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:30:00 PM
Lab ID: 2009632-031 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**CAS**
Chloride	ND	60		mg/Kg	20	9/16/2020 3:54:18 PM	55197
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst:	**JMR**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 5:42:53 AM	55111
Surr: BFB	107	70-130		%Rec	1	9/15/2020 5:42:53 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/14/2020 1:19:33 PM	55115
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/14/2020 1:19:33 PM	55115
Surr: DNOP	118	30.4-154		%Rec	1	9/14/2020 1:19:33 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst:	**JMR**
Benzene	ND	0.025		mg/Kg	1	9/15/2020 5:42:53 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 5:42:53 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 5:42:53 AM	55111
Xylenes, Total	ND	0.098		mg/Kg	1	9/15/2020 5:42:53 AM	55111
Surr: 1,2-Dichloroethane-d4	90.7	70-130		%Rec	1	9/15/2020 5:42:53 AM	55111
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/15/2020 5:42:53 AM	55111
Surr: Dibromofluoromethane	106	70-130		%Rec	1	9/15/2020 5:42:53 AM	55111
Surr: Toluene-d8	104	70-130		%Rec	1	9/15/2020 5:42:53 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 6
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:35:00 PM
Lab ID: 2009632-032 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/16/2020 4:01:26 PM	55214
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/15/2020 6:11:26 AM	55111
Surr: BFB	101	70-130		%Rec	1	9/15/2020 6:11:26 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/14/2020 1:29:11 PM	55115
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/14/2020 1:29:11 PM	55115
Surr: DNOP	114	30.4-154		%Rec	1	9/14/2020 1:29:11 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 6:11:26 AM	55111
Toluene	ND	0.050		mg/Kg	1	9/15/2020 6:11:26 AM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/15/2020 6:11:26 AM	55111
Xylenes, Total	ND	0.10		mg/Kg	1	9/15/2020 6:11:26 AM	55111
Surr: 1,2-Dichloroethane-d4	95.1	70-130		%Rec	1	9/15/2020 6:11:26 AM	55111
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/15/2020 6:11:26 AM	55111
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/15/2020 6:11:26 AM	55111
Surr: Toluene-d8	98.6	70-130		%Rec	1	9/15/2020 6:11:26 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 7
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:40:00 PM
Lab ID: 2009632-033 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/16/2020 4:38:40 PM	55214
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/15/2020 6:39:55 AM	55111
Surr: BFB	101	70-130		%Rec	1	9/15/2020 6:39:55 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	9/14/2020 1:38:50 PM	55115
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/14/2020 1:38:50 PM	55115
Surr: DNOP	113	30.4-154		%Rec	1	9/14/2020 1:38:50 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	9/15/2020 6:39:55 AM	55111
Toluene	ND	0.048		mg/Kg	1	9/15/2020 6:39:55 AM	55111
Ethylbenzene	ND	0.048		mg/Kg	1	9/15/2020 6:39:55 AM	55111
Xylenes, Total	ND	0.097		mg/Kg	1	9/15/2020 6:39:55 AM	55111
Surr: 1,2-Dichloroethane-d4	89.9	70-130		%Rec	1	9/15/2020 6:39:55 AM	55111
Surr: 4-Bromofluorobenzene	103	70-130		%Rec	1	9/15/2020 6:39:55 AM	55111
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/15/2020 6:39:55 AM	55111
Surr: Toluene-d8	99.4	70-130		%Rec	1	9/15/2020 6:39:55 AM	55111

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

Qualifiers:

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 8
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:45:00 PM
Lab ID: 2009632-034 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/16/2020 4:51:04 PM	55214
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/15/2020 7:08:23 AM	55111
Surr: BFB	105	70-130		%Rec	1	9/15/2020 7:08:23 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/14/2020 1:48:29 PM	55115
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/14/2020 1:48:29 PM	55115
Surr: DNOP	107	30.4-154		%Rec	1	9/14/2020 1:48:29 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 7:08:23 AM	55111
Toluene	ND	0.049		mg/Kg	1	9/15/2020 7:08:23 AM	55111
Ethylbenzene	ND	0.049		mg/Kg	1	9/15/2020 7:08:23 AM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/15/2020 7:08:23 AM	55111
Surr: 1,2-Dichloroethane-d4	93.0	70-130		%Rec	1	9/15/2020 7:08:23 AM	55111
Surr: 4-Bromofluorobenzene	104	70-130		%Rec	1	9/15/2020 7:08:23 AM	55111
Surr: Dibromofluoromethane	110	70-130		%Rec	1	9/15/2020 7:08:23 AM	55111
Surr: Toluene-d8	103	70-130		%Rec	1	9/15/2020 7:08:23 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 9
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:50:00 PM
Lab ID: 2009632-035 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/16/2020 5:03:29 PM	55214
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/15/2020 7:36:53 AM	55111
Surr: BFB	103	70-130		%Rec	1	9/15/2020 7:36:53 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/14/2020 1:58:22 PM	55115
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	9/14/2020 1:58:22 PM	55115
Surr: DNOP	114	30.4-154		%Rec	1	9/14/2020 1:58:22 PM	55115
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 7:36:53 AM	55111
Toluene	ND	0.050		mg/Kg	1	9/15/2020 7:36:53 AM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/15/2020 7:36:53 AM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/15/2020 7:36:53 AM	55111
Surr: 1,2-Dichloroethane-d4	94.5	70-130		%Rec	1	9/15/2020 7:36:53 AM	55111
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	9/15/2020 7:36:53 AM	55111
Surr: Dibromofluoromethane	108	70-130		%Rec	1	9/15/2020 7:36:53 AM	55111
Surr: Toluene-d8	100	70-130		%Rec	1	9/15/2020 7:36:53 AM	55111

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

Analytical Report
Lab Order **2009632**
Date Reported: **9/18/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW 10
Project: Rattlesnake 13-12
Collection Date: 9/9/2020 12:55:00 PM
Lab ID: 2009632-036 **Matrix:** SOIL **Received Date:** 9/11/2020 8:00:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	9/16/2020 5:15:53 PM	55214
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/15/2020 8:05:31 AM	55111
Surr: BFB	100	70-130		%Rec	1	9/15/2020 8:05:31 AM	55111
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	9/15/2020 10:34:32 AM	55142
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/15/2020 10:34:32 AM	55142
Surr: DNOP	131	30.4-154		%Rec	1	9/15/2020 10:34:32 AM	55142
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	9/15/2020 8:05:31 AM	55111
Toluene	ND	0.050		mg/Kg	1	9/15/2020 8:05:31 AM	55111
Ethylbenzene	ND	0.050		mg/Kg	1	9/15/2020 8:05:31 AM	55111
Xylenes, Total	ND	0.099		mg/Kg	1	9/15/2020 8:05:31 AM	55111
Surr: 1,2-Dichloroethane-d4	96.9	70-130		%Rec	1	9/15/2020 8:05:31 AM	55111
Surr: 4-Bromofluorobenzene	97.5	70-130		%Rec	1	9/15/2020 8:05:31 AM	55111
Surr: Dibromofluoromethane	105	70-130		%Rec	1	9/15/2020 8:05:31 AM	55111
Surr: Toluene-d8	103	70-130		%Rec	1	9/15/2020 8:05:31 AM	55111

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **MB-55172**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **55172**	RunNo: **71878**							
Prep Date: **9/15/2020**	Analysis Date: **9/15/2020**	SeqNo: **2515816**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55172**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **55172**	RunNo: **71878**							
Prep Date: **9/15/2020**	Analysis Date: **9/15/2020**	SeqNo: **2515817**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.4	90	110			

Sample ID: **MB-55214**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **55214**	RunNo: **71908**							
Prep Date: **9/16/2020**	Analysis Date: **9/16/2020**	SeqNo: **2517090**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55214**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **55214**	RunNo: **71908**							
Prep Date: **9/16/2020**	Analysis Date: **9/16/2020**	SeqNo: **2517091**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.7	90	110			

Sample ID: **MB-55197**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **55197**	RunNo: **71879**							
Prep Date: **9/16/2020**	Analysis Date: **9/16/2020**	SeqNo: **2517377**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-55197**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **55197**	RunNo: **71879**							
Prep Date: **9/16/2020**	Analysis Date: **9/16/2020**	SeqNo: **2517378**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.9	90	110			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **MB-55109**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **55109**	RunNo: **71792**
Prep Date: **9/11/2020**	Analysis Date: **9/12/2020**	SeqNo: **2511889** 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		103	30.4	154			

Sample ID: **LCS-55109**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **55109**	RunNo: **71792**
Prep Date: **9/11/2020**	Analysis Date: **9/12/2020**	SeqNo: **2511890** 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	99.1	70	130			
Surr: DNOP	5.0		5.000		100	30.4	154			

Sample ID: **MB-55115**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **55115**	RunNo: **71810**
Prep Date: **9/12/2020**	Analysis Date: **9/14/2020**	SeqNo: **2512645** 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	9.5		10.00		95.4	30.4	154			

Sample ID: **LCS-55115**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **55115**	RunNo: **71810**
Prep Date: **9/12/2020**	Analysis Date: **9/14/2020**	SeqNo: **2512649** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	10	50.00	0	90.5	70	130			
Surr: DNOP	4.2		5.000		84.5	30.4	154			

Sample ID: **2009632-036AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW 10**	Batch ID: **55142**	RunNo: **71844**
Prep Date: **9/14/2020**	Analysis Date: **9/15/2020**	SeqNo: **2514504** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	9.6	47.76	0	108	47.4	136			
Surr: DNOP	5.3		4.776		112	30.4	154			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **2009632-036AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **SW 10** Batch ID: **55142** RunNo: **71844**

Prep Date: **9/14/2020** Analysis Date: **9/15/2020** SeqNo: **2514505** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	8.6	42.92	0	121	47.4	136	0.678	43.4	
Surr: DNOP	5.5		4.292		128	30.4	154	0	0	

Sample ID: **LCS-55142** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **55142** RunNo: **71844**

Prep Date: **9/14/2020** Analysis Date: **9/15/2020** SeqNo: **2514517** 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	114	70	130			
Surr: DNOP	6.0		5.000		120	30.4	154			

Sample ID: **MB-55142** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **55142** RunNo: **71844**

Prep Date: **9/14/2020** Analysis Date: **9/15/2020** SeqNo: **2514518** 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	12		10.00		122	30.4	154			

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **mb-55105** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **55105** RunNo: **71799**

Prep Date: **9/11/2020** Analysis Date: **9/12/2020** SeqNo: **2512091** 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		95.4	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.5000		101	70	130			
Surr: Dibromofluoromethane	0.53		0.5000		107	70	130			
Surr: Toluene-d8	0.53		0.5000		105	70	130			

Sample ID: **lcs-55105** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **BatchQC** Batch ID: **55105** RunNo: **71799**

Prep Date: **9/11/2020** Analysis Date: **9/12/2020** SeqNo: **2512092** 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	88.1	80	120			
Toluene	0.99	0.050	1.000	0	98.6	80	120			
Ethylbenzene	1.0	0.050	1.000	0	101	80	120			
Xylenes, Total	3.2	0.10	3.000	0	106	80	120			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		95.3	70	130			
Surr: 4-Bromofluorobenzene	0.53		0.5000		107	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		104	70	130			
Surr: Toluene-d8	0.50		0.5000		101	70	130			

Sample ID: **lcs-55111** SampType: **LCS4** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **BatchQC** Batch ID: **55111** RunNo: **71834**

Prep Date: **9/11/2020** Analysis Date: **9/14/2020** SeqNo: **2513969** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.91	0.025	1.000	0	90.6	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.2	0.10	3.000	0	107	80	120			
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		97.3	70	130			
Surr: 4-Bromofluorobenzene	0.52		0.5000		104	70	130			
Surr: Dibromofluoromethane	0.52		0.5000		105	70	130			
Surr: Toluene-d8	0.49		0.5000		99.0	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **mb-55111** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **PBS** Batch ID: **55111** RunNo: **71834**

Prep Date: **9/11/2020** Analysis Date: **9/14/2020** SeqNo: **2513970** 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		95.2	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.5	70	130			
Surr: Dibromofluoromethane	0.55		0.5000		111	70	130			
Surr: Toluene-d8	0.51		0.5000		102	70	130			

Sample ID: **2009632-019ams** SampType: **MS4** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **CS19** Batch ID: **55111** RunNo: **71834**

Prep Date: **9/11/2020** Analysis Date: **9/14/2020** SeqNo: **2513972** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.87	0.025	0.9891	0	87.8	71.1	115			
Toluene	0.95	0.049	0.9891	0	96.1	79.6	132			
Ethylbenzene	0.97	0.049	0.9891	0	97.7	83.8	134			
Xylenes, Total	3.0	0.099	2.967	0	101	82.4	132			
Surr: 1,2-Dichloroethane-d4	0.47		0.4946		94.3	70	130			
Surr: 4-Bromofluorobenzene	0.51		0.4946		103	70	130			
Surr: Dibromofluoromethane	0.51		0.4946		104	70	130			
Surr: Toluene-d8	0.48		0.4946		97.2	70	130			

Sample ID: **2009632-019amsd** SampType: **MSD4** TestCode: **EPA Method 8260B: Volatiles Short List**

Client ID: **CS19** Batch ID: **55111** RunNo: **71834**

Prep Date: **9/11/2020** Analysis Date: **9/14/2020** SeqNo: **2513973** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	0.9940	0	85.2	71.1	115	2.54	20	
Toluene	0.97	0.050	0.9940	0	97.2	79.6	132	1.61	20	
Ethylbenzene	0.99	0.050	0.9940	0	100	83.8	134	2.79	20	
Xylenes, Total	3.1	0.099	2.982	0	103	82.4	132	2.13	20	
Surr: 1,2-Dichloroethane-d4	0.47		0.4970		94.7	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.51		0.4970		103	70	130	0	0	
Surr: Dibromofluoromethane	0.53		0.4970		107	70	130	0	0	
Surr: Toluene-d8	0.50		0.4970		101	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **mb-55105**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **PBS**	Batch ID: **55105**	RunNo: **71799**							
Prep Date: **9/11/2020**	Analysis Date: **9/12/2020**	SeqNo: **2512109**	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		101	70	130			

Sample ID: **lcs-55105**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **55105**	RunNo: **71799**							
Prep Date: **9/11/2020**	Analysis Date: **9/12/2020**	SeqNo: **2512110**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	25.00	0	90.8	70	130			
Surr: BFB	490		500.0		97.5	70	130			

Sample ID: **lcs-55111**	SampType: **LCS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **55111**	RunNo: **71834**							
Prep Date: **9/11/2020**	Analysis Date: **9/14/2020**	SeqNo: **2513997**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	5.0	25.00	0	88.4	70	130			
Surr: BFB	510		500.0		103	70	130			

Sample ID: **mb-55111**	SampType: **MBLK**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **PBS**	Batch ID: **55111**	RunNo: **71834**							
Prep Date: **9/11/2020**	Analysis Date: **9/14/2020**	SeqNo: **2513998**	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	500		500.0		99.8	70	130			

Sample ID: **2009632-020ams**	SampType: **MS**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **CS20**	Batch ID: **55111**	RunNo: **71834**							
Prep Date: **9/11/2020**	Analysis Date: **9/14/2020**	SeqNo: **2514001**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	5.0	24.88	0	91.3	49.2	122			
Surr: BFB	510		497.5		103	70	130			

Sample ID: **2009632-020amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D Mod: Gasoline Range**							
Client ID: **CS20**	Batch ID: **55111**	RunNo: **71834**							
Prep Date: **9/11/2020**	Analysis Date: **9/14/2020**	SeqNo: **2514002**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2009632**

18-Sep-20

Client: Souder, Miller & Associates

Project: Rattlesnake 13-12

Sample ID: **2009632-020amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**

Client ID: **CS20** Batch ID: **55111** RunNo: **71834**

Prep Date: **9/11/2020** Analysis Date: **9/14/2020** SeqNo: **2514002** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.8	24.11	0	88.7	49.2	122	5.98	20	
Surr: BFB	500		482.2		103	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
B	Analyte detected in the associated Method Blank
E	Value above quantitation range
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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: **2009632** RcptNo: 1

Received By: **Cheyenne Cason** **9/11/2020 8:00:00 AM**

Completed By: **Emily Mocho** **9/11/2020 8:53:17 AM**

Reviewed By: CM 9/11/20

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: SPA 9.11.20

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

By Whom: _____ Via: ☐ eMail ☐ Phone ☐ Fax ☐ In Person

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	5.3	Good	Not Present			

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush

Project Name: Rattlesnake 13-12

Project #: WO #208568800

Project Manager: Ashley Maxwell

Sampler: SO

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.2 + 0.1 = 5.3(°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. 2009632	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)
9/9/20	10:00	Soil	CS1	1-4oz	Cool	001	X	X					X			
	10:05		CS2			002										
	10:10		CS3			003										
	10:15		CS4			004										
	10:20		CS5			005										
	10:25		CS6			006										
	10:30		CS7			007										
	10:35		CS8			008										
	10:40		CS9			009										
	10:45		CS10			010										
	10:50		CS11			011										
	10:55		CS12			012										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/10/20	1115				9/10/20	1115
9/10/20	1900				9/11/20	0800

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.

Chain-of-Custody Record

Client: SMA

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 Day
☑ Standard ☐ Rush

Project Name: Rattlesnake 13-12

Project #: WO # 20856900

Project Manager: Ashley Maxwell

Sampler: SO

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.2 + 0.1 = 5.3 (°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. 2009632	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)
9/9/20	10:00	Soil	CS13	1-4oz	Cool	013	X	X					X			
	11:05		CS14			014										
	11:10		CS15			015										
	11:15		CS16			016										
	11:20		CS17			017										
	11:25		CS18			018										
	11:30		CS19			019										
	11:35		CS20			020										
	11:40		CS21			021										
	11:45		CS22			022										
	11:50		CS23			023										
	11:55		CS24			024										

Date	Time	Relinquished by	Received by	Via	Date	Time
9/10/20	1115		GCummings		9/10/20	1115
9/10/20	1900	GCummings		courier	9/11/20	0800

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.

Chain-of-Custody Record

Client: SMA

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

Project Name: Rattlesnake 13-12

Project #: WO #20856800

Project Manager: Ashley Maxwell

Sampler: SO

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 5.2 + 0.1 = 5.3 (°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. 2009632	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)
9/9/20	12:00	Soil	CS25	1-4oz	Cool	025	X	X					X			
	12:05		CS26			026										
	12:10		SW1			027										
	12:15		SW2			028										
	12:20		SW3			029										
	12:25		SW4			030										
	12:30		SW5			031										
	12:35		SW6			032										
	12:40		SW7			033										
	12:45		SW8			034										
	12:50		SW9			035										
	12:55		SW10			036										

Analysis Request

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/10/20	1115	Relinquished by:	acummings		9/10/20	1115
9/10/20	1900	acummings		Courier	9/11/20	0800

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.

APPENDIX E
PHOTO LOG

N NE E
0 30 60 90

44°NE (T) 32°2'12"N, 103°24'56"W ±13ft 3237ft

28 Jul 2020, 10:01:08

NE E SE

30 60 120 150

91°E (T) 32°2'12"N, 103°24'56"W ±13ft ▲ 3237ft

28 Jul 2020, 10:01:04

E SE S

90 120 150 180 21

139°SE (T) 32°2'12"N, 103°24'56"W ±13ft ▲ 3235ft

28 Jul 2020, 10:00:47

NW N NE

300 330 30 60

0°N (T) 32°2'12"N, 103°24'56"W ±13ft ▲ 3237ft

28 Jul 2020, 10:01:12

N NE E
0 30 60 90

47°NE (T) 32°2'12"N, 103°24'56"W ±13ft 3236ft

28 Jul 2020, 10:01:37

E SE S
90 120 150 180 21

140°SE (T) 32°2'13"N, 103°24'57"W ±13ft ▲3236ft

S SW W
150 180 210 240 270

214°SW (T) 32°2'13"N, 103°24'54"W ±13ft 3238ft

28 Jul 2020, 10:04:58

NW N NE

300 330 30 60

0°N (T) 32°2'13"N, 103°24'54"W ±13ft ▲3236ft

28 Jul 2020, 10:04:45

SW W NW

210 240 270 300 330

267°W (T) 32°2'12"N, 103°24'56"W ±19ft ▲ 3234ft

28 Jul 2020, 10:05:43

NW N NE

330 0 30 60

17°N (T) 32°2'12"N, 103°24'56"W ±13ft 3234ft

E SE S

60 90 120 150 180

126°SE (T) 32°2'12"N, 103°24'55"W ±13ft ▲3234ft

NE E SE S

60 90 120 150 180

113°E (T) 32°2'12"N, 103°24'56"W ±13ft 3232ft

28 Jul 2020, 10:02:17

NE E SE

30 60 90 120 1

78°E (T) 32°2'12"N, 103°24'56"W ±13ft ▲3233ft

28 Jul 2020, 10:02:05

W W NW N

240 270 300 330 0

297°NW (T) 32°2'12"N, 103°24'56"W ±13ft 3234ft

NW N NE

00 330 0 30 60

10°N (T) 32°2'12"N, 103°24'56"W ±13ft 3236ft

28 Jul 2020, 10:01:54

N NE E
0 30 60 90 120

52°NE (T) 32°2'13"N, 103°24'55"W ±13ft 3236ft

28 Jul 2020, 10:04:21

W 270 | 300 | NW | 330 | N 0 | 30

320°NW (T) 32°2'12"N, 103°24'54"W ±13ft 3237ft

28 Jul 2020, 10:04:39

NE E SE

30 60 90 120 150

85°E (T) 32°2'13"N, 103°24'54"W ±13ft 3236ft

NE E SE

60 90 120 150

103°E (T) 32°2'12"N, 103°24'57"W ±13ft 3237ft

28 Jul 2020, 10:06:14

E SE S

60 90 120 150 180

127°SE (T) 32°2'12"N, 103°24'57"W ±13ft ▲3237ft

28 Jul 2020, 10:06:21

SE S SW

120 150 180 210 240

171°S (T) 32°2'12"N, 103°24'56"W ±13ft 3235ft

28 Jul 2020, 10:00:38

SW W NW

210 240 270 300 330

268°W (T) 32°2'13"N, 103°24'55"W ±13ft 3235ft

E E SE S

60 90 120 150 180

118°SE (T) 32°2'13"N, 103°24'55"W ±13ft 3236ft

28 Jul 2020, 10:04:03

NE E SE

30 60 90 120 150

98°E (T) 32°2'13"N, 103°24'55"W ±13ft ▲3233ft

28 Jul 2020, 10:03:44

SE S SW

120 150 180 210 240

191°S (T) 32°2'13"N, 103°24'55"W ±13ft 3233ft

28 Jul 2020, 10:03:31

NE E SE

30 60 90 120

77°E (T) 32°2'13"N, 103°24'55"W ±13ft 3234ft

28 Jul 2020, 10:03:23

NE E SE

30 60 90 120 150

88°E (T) 32°2'12"N, 103°24'56"W ±13ft ▲3238ft

28 Jul 2020, 10:01:42

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1625 N. French Dr., Hobbs, NM 88240
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811 S. First St., Artesia, NM 88210
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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 175004

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 175004
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	Closure Report Approved.	2/1/2023