

August 19, 2019

#5E27950-BG21

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

SUBJECT: Remediation Closure Report for the Nighthawk St Com 1H Release (1RP-5566), Lea County, New Mexico

To Whom it May Concern:

On behalf of Marathon Oil Permian, LLC, 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 Nighthawk St Com 1H site. The site is in Unit D, Section 29, Township 18S, Range 35E, Lea County, New Mexico, on State land. Figure 1 illustrates the vicinity and site location on an USGS 7.5 minute quadrangle map.

Table 1 summarizes release information and Closure Criteria.

Table 1: Release Information and Closure Criteria					
Name	Nighthawk St Com 1H	Company	Marathon Oil Permian, LLC		
API Number	30-025-41519	Location	32.725361, -103.485996		
Incident Number		1RP-5566			
Estimated Date of Release	June 6, 2019	Date Reported to NMOCD	June 7, 2019		
Land Owner	State of New Mexico	Reported To	NMOCD, NMSLO		
Source of Release	Stuffing box leak				
Released Volume	26.90	Released Material	Crude Oil		
Recovered Volume	25	Net Release	1.90		
NMOCD Closure Criteria	<50 feet to groundwater				
SMA Response Dates	6/14, 7/24/2019,				

1.0 Background

On June 6, 2019, a release was discovered at the Nighthawk St Com 1H site due to a stuffing box release. Initial response activities were conducted by the operator, and included source elimination, site security, containment and site stabilization. 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 Nighthawk St Com 1H is located approximately 20.48 miles northeast of Hobbs, New Mexico on State land at an elevation of approximately 3,920 feet above mean sea level (amsl).

Based upon New Mexico Office of the State Engineer (Appendix B), depth to groundwater in the area is estimated to be 78 feet below grade surface (bgs). There is one (1) known water source within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 6/21/2019). The nearest significant watercourse is the Iron House Draw, located approximately 182 feet to the south. Figure 2 illustrates the site with 100, 200, and 300-foot radii to indicate that it does lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of less than 50 feet bgs. The site has been restored to meet the standards of Table I of 19.15.29.12 NMAC.

Table 2 demonstrates the Closure Criteria applicable to this location. Pertinent well data is attached in Appendix B.

3.0 Release Characterization and Remediation Activities

On June 14, 2019, SMA personnel arrived on site in response to the release associated with Nighthawk St Com 1H. SMA oversaw site scraping activities and then collected soil samples around the release site and throughout the visibly stained area. Soil samples were field-screened for chlorides 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 sixteen (16) sample locations (L1-L16) were investigated using a hand-auger, to a depth of approximately 3 inches bgs. A total of sixteen (16) 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.

On July 12, 2019 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. The walls and base were excavated until field screening results indicated that the NMOCD Closure Criteria would be met. NMOCD was notified on July 10, 2019 that closure samples were expected to be collected in two (2) business days.

SMA conducted confirmation sampling of the walls and base of the excavation on July 12, 2019. The excavation was conducted in three primary areas; the northern portion measured approximately $27 \times 64 \times 2$ feet; The middle portion measured approximately $18 \times 37 \times 4$ feet; the southern portion measured approximately $38 \times 70 \times 1.5$ feet. The rest of the impacted area was left at the initial 0.5-foot scrape. Upon

laboratory analysis of the northern most sidewalls the area was extended and sidewall samples CSW 1 and CSW 2 were recollected.

Since the initial samples showed no impacts of BTEX or GRO, closure samples were for laboratory analysis for total chloride using EPA Method 300.0; and motor-diesel range organics (MRO, DRO) 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 of the excavation and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix D.

Contaminated soils were removed and replaced with clean backfill material to return the surface to previous contours. The contaminated soil was transported and disposed of at R360 Environmental Solutions an NMOCD permitted disposal facility.

5.0 Scope and Limitations

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

If there are any questions regarding this report, please contact either Heather Patterson (575) 200-5343 or Shawna Chubbuck at 505-325-7535.

Submitted by: SOUDER, MILLER & ASSOCIATES Reviewed by:

Jen A Amba

Lynn A. Acosta Staff Geoscientist

Shawna Chubbuck

Shawna Chubbuck Senior Scientist

ATTACHMENTS:

Figures:

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

Tables:

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

Appendices:

Appendix A: Form C141 Appendix B: NMOSE Wells Report Appendix C: Photo Documentation and Field Notes Appendix D: Laboratory Analytical Reports

FIGURES







TABLES

Table 2: NMOCD Closure Criteria

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	78	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	1800	USGS
Hortizontal Distance to Nearest Significant Watercourse (ft)	182	Iron House Draw

Closure Criteria (19.15.2	29.12.B(4) an	d Table 1 NMAC)				
	Closure Criteria (units in mg/kg)					
Depth to Groundwater		Chloride *numerical limit or background, whichever is greater	ТРН	GRO + DRO	BTEX	Benzene
< 50' BGS		600	100		50	10
51' to 100'	Х	10000	2500	1000	50	10
>100'		20000	2500	1000	50	10
Surface Water	yes or no		if yes	s, then		
<300' from continuously flowing watercourse or other significant watercourse?	Yes					
<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		600	100		50	10
<300' from an occupied permanent residence, school, hospital,		000	100		50	10
institution or church?	No					
within incorporated municipal boundaries or within a defined						
municipal fresh water well field?	No					
<100' from wetland?	No					
within area overlying a subsurface mine	No					
within an unstable area?	No					
within a 100-year floodplain?	No					

Table 3: Summary of Sample Results

Sample ID	Sample	Depth	Proposed Action/	BTEX	Benzene	GRO	DRO	MRO	Total TPH	CI-
	Dale	(ieer bys)	Taken	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg	mg/Kg
1	MOCD Clos	sure Criteria		50	10				100	600
L1	6/14/2019	3"	in-situ	<0.215	<0.024	<4.8	<10	<50	<64.8	<60
L2	6/14/2019	3"	in-situ	<0.224	<0.025	<5.0	<9.9	<49	<63.9	100
L3	6/14/2019	3"	in-situ	<0.222	<0.025	<4.9	<9.4	<47	<61.3	72
L4	6/14/2019	3"	excavate	<0.221	<0.025	<4.9	<9.9	<49	<63.8	1900
L5	6/14/2019	3"	excavate	<0.224	<0.025	<5.0	210	240	450	660
L6	6/14/2019	3"	excavate	<0.220	<0.024	<4.9	3300	2400	5700	8300
L7	6/14/2019	3"	excavate	<0.224	<0.025	<5.0	7500	5500	13000	5100
L8	6/14/2019	3"	in-situ	<0.225	<0.025	<5.0	16	52	<73	<59
L9	6/14/2019	3"	excavate	<0.220	<0.024	<4.9	<9.8	<49	<63.7	1800
L10	6/14/2019	3"	excavate	<0.221	<0.025	<4.9	86	230	316	170
L11	6/14/2019	3"	in-situ	<0.217	<0.024	<4.8	9.6	<48	<62.4	150
L12	6/14/2019	3"	excavate	<0.224	<0.024	<5.0	2000	2400	4400	5400
L13	6/14/2019	3"	excavate	<0.220	<0.024	<4.9	4300	3400	7700	1500
L14	6/14/2019	3"	excavate	<0.224	<0.025	<5.0	210	650	860	1500
L15	6/14/2019	3"	excavate	<0.221	<0.025	<4.9	88	64	152	76
L16	6/14/2019	3"	in-situ	<0.221	<0.025	<4.9	13	<50	<67.9	<60
				Closure	Samples					
	7/12/2019	Surface	excavated	<0.174	<0.020	-	39	170	209	120
05001	7/24/2019	Surface	in-situ	-	-	-	10	<49	<59	-
	7/12/2019	Surface	excavated	<0.174	<0.020	-	110	52	162	170
03172	7/24/2019	Surface	in-situ	-	-	-	<9.8	<49	<58.8	-
CSW 3	7/12/2019	Surface	in-situ	<0.174	<0.020	-	<10	<49	<59	78
CSW 4	7/12/2019	Surface	in-situ	<1.75	<0.020	-	<9	<47	<56	400
CS 4	7/12/2019	0.5'	in-situ	-	-	-	-	-	-	540
CS 5	7/12/2019	0.5'	in-situ	-	-	-	<10	<50	<60	<60
CS 6	7/12/2019	2'	in-situ	-	-	-	<9.7	<48	<57.7	270
CS 7	7/12/2019	2'	in-situ	-	-	-	<9.5	<47	<56.5	240
CS 9	7/12/2019	4'	in-situ	-	-	-	-	-	-	440
CS 10	7/12/2019	1.5'	in-situ	-	-	-	<9.7	<49	<58.7	-
CS 12	7/12/2019	1.5'	in-situ	-	-	-	<9.9	<49	<58.9	110
CS 13	7/12/2019	0.5'	in-situ	-	-	-	<9.8	<49	<58.8	240
CS 14	7/12/2019	0.5'	in-situ	-	-	-	<9.6	<48	<57.6	300
CS 15	7/12/2019	1.5'	in-situ	-	-	-	<10	<50	<60	-

"--" = Not Analyzed * = per Reclamation Standard (19.15.29.13.D(1) NMAC)

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

)

Incident ID	NDHR1917248566
District RP	1RP-5566
Facility ID	
Application ID	pDHR1917247883

Release Notification

Responsible Party

Responsible Party	OGRID
Contact Name	Contact Telephone
Contact email	Incident # (assigned by OCD) NDHR1917248566
Contact mailing address	

Location of Release Source

Latitude	Longitude
	(NAD 83 in decimal degrees to 5 decimal places)
Site Name	Site Type

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	·	

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Incident ID	NDHR1917248566
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Was this a major release as defined by 19.15.29.7(A) NMAC?	If YES, for what reason(s) does the responsible party consider this a major release?
Yes No	
If YES, was immediate n	otice 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:	Date:
email:	Telephone:
OCD Only	
Received by: Dylan Rose-Coss	Date: 06/21/2019

State of New Mexico Oil Conservation Division

Incident ID	NDHR1917248566
District RP	1RP-5566
Facility ID	
Application ID	pDHR1917247883

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?	<u>78</u> (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
- \square Depth to water determination
- Determination of water sources and significant watercourses within ¹/₂-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	State of New Mexico	Insident ID	NDUD1017249566
Page 4	Oil Conservation Division	District RP	1RP-5566
U		Facility ID	111-3300
		Application ID	pDHR1917247883
I hereby certify that the in regulations all operators is public health or the envir failed to adequately invest addition, OCD acceptance and/or regulations. Printed Name:Isa Signature: email:icastroe	nformation given above is true and complete to the best of are required to report and/or file certain release notification ronment. The acceptance of a C-141 report by the OCD do stigate and remediate contamination that pose a threat to gree of a C-141 report does not relieve the operator of response and Castro mac Castro Title: Maac Castro Date @marathonoil.com Telept	my knowledge and understand that purs is and perform corrective actions for rel- bes not relieve the operator of liability sh roundwater, surface water, human health sibility for compliance with any other fe <u>HES Professional</u> e: <u>8-19-19</u> hone: <u>575-988-0561</u>	suant to OCD rules and eases which may endanger nould their operations have n or the environment. In ederal, state, or local laws
OCD Only Received by:		Date:	

Form C-141 Page 5 State of New Mexico Oil Conservation Division

<u>Remediation Plan Checklist</u>: Each of the following items must be included in the plan.

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Remediation Plan

 Detailed description of proposed remediation technique Scaled sitemap with GPS coordinates showing delineation points Estimated volume of material to be remediated Closure criteria is to Table 1 specifications subject to 19.15.29.12(C)(4) NMAC Proposed schedule for remediation (note if remediation plan timeline is more than 90 days OCD approval is required)
Deferral Requests Only: Each of the following items must be confirmed as part of any request for deferral of remediation.
Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
Extents of contamination must be fully delineated.
Contamination does not cause an imminent risk to human health, the environment, or groundwater.
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to OCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the OCD does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to groundwater, surface water, human health or the environment. In addition, OCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.
Signature: Date:
email: Telephone:
OCD Only
Received by: Date:
Approved Approved with Attached Conditions of Approval Denied Deferral Approved
Signature: Date:

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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: _____Isaac Castro______ Title: ____HES Professional______ Signature: ______ *Asaac Castro* ______ Date: __<u>8/19/19</u>_____ email: _____icastro@marathonoil.com_____ Telephone: __575-988-0561_____ **OCD Only** Received by: Date: _____ Closure approval by the OCD does not relieve the responsible party of liability should their operations have failed to adequately investigate and remediate contamination that poses a threat to groundwater, surface water, human health, or the environment nor does not relieve the responsible party of compliance with any other federal, state, or local laws and/or regulations.

Closure Approved by:	Date:
Printed Name:	Title:

APPENDIX B NMOSE WELLS REPORT

	V	N Vat	<i>ew I</i> er C	<i>Nex</i> Colu	icc Jn	o C nn)ffic /A	<i>ce of</i> vera	<i>the S</i> ige D	<i>itate Er</i> epth	ngineel to Wa	r I ter	
(A CLW##### in the POD suffix indicates the POD has been replaced & no longer	(R=POD been rep O=orpha) has blaced, aned,		(quart	ors a	ro 1–N	IW 2-N	NE 3-SW 4	1-SF)				
serves a water right file.)	C=the fil closed)		(quart (quart larges	ers an ers an	re sma	allest to	(N	IAD83 UTM ii	n meters)	(In fe	eet)		
		POD Sub-		QQQ	2			(,	(N	/ater
POD Number	Code	basin	County	64164	Sec	Tws	Rng	X	Y	DistanceD	epthWellDept	thWaterCo	lumn
<u>L 04562</u>		L	LE	31	29	185	35E	641874	3621315*	555	156	95	61
<u>L 02053</u>		L	LE		20	18S	35E	642464	3622723*	9 1067	175	78	97
									Av	erage Depth to	Water:	86 fe	et
										Minimum [Depth:	78 fe	et
										Maximum [Depth:	95 feo	et
Record Count:2													
UTMNAD83 Radiu	us Search	(in mete	ers):										
Easting (X): 64	1825		Nort	ning (Y):	362	1868			Radius: 150	00			
*UTM location was deriv	ed from PLS	SS - see	Help										
The data is furnished by the concerning the accuracy.	ne NMOSE/I	SC and is s. reliabil	s accepted itv. usabilit	by the re v. or suita	cipient bility fo	t with t or anv	ne expre particula	essed under ar purpose c	rstanding that t of the data.	he OSE/ISC make	e no warranties, e	xpressed or i	mplied,
7/30/19 9:38 AM										WATER C WATER	olumn/ Aver	AGE DEPTH	H TO

APPENDIX C PHOTO DOCUMENTATION AND FIELD NOTES



		1	SWA	Field Scre	ening			
Location Name: " Lovad Ancon - Nitand Anoush	Stele	#map		Date: () (0	114/19			
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
Auspreus - 1 @Swit	020/	000	9.96	139	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
Junso 2 - Cuergerovo	2201	0,16	293	205	Light Dark Tan Rrown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
Oversprent - 3 @Suf	1024	304	29.3	88.6	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Maist	
1-1 31	otho	PIG	2.15	49.2	LED Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
L-2 3°	1021	05	218	3 6	Light Dark Tân Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Moist Wet	
L-3 2'	fost	0,16	31.2	8.8	Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Moist Wet	
L.4 3"	1050	3.6	218	28.10 281,4h	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Moist Wet	
1-5 31	0011	1.1	F.16	R R	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	
1-P 31	1011	1.1	F.05	T.T	Light Dark Tan Brown Gray Olive Yellow Red	Gravel Rock Sand Silt Clay	Dry Moist Wet	

Location Name: MAR Sample Nar C - 7 C - 1 C - 1 C - 1 C - 1 C - 1 C - 1 C - 1	illaut thruch	Sitter Time: Time:	3.7 2 0.3 1 0.1 K 8.0 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	SWA TEMPTCI TEMPTCI 30, U 31, U 29, S 29, S 29, S 29, S 29, S	Field Scre PID Reading PPD Rea	Cening Soil Color Soil Color Tan Gray Clive Vellow Red Light Dark Tan Brown Gray Clive Vellow Red Light Dark Tan Brown Gray Clive Vellow Red Light Dark Tan Brown Gray Clive Vellow Red Light Dark Tan Brown Gray Olive Vellow Red Light Dark Tan Brown Gray Olive Vellow Red Light Dark Tan Brown Gray Olive Vellow Red Light Dark Tan Brown Gray Olive Vellow Red Ught Dark Tan Brown Gray Olive Vellow Red Ught Dark Tan Brown Gray Olive Vellow Red Ught Dark	Primary Soil Type Gravel Rock Sand Silt Clay Gravel Rock Sand Silt Clay Gravel Rock Sand Silt Clay Gravel Rock Sand Silt Clay Sand Silt Clay Silt Clay Sand Silt Clay Sand Silt Clay SIL Sand Silt Clay Sand Silt Clay Sand Silt Clay Sand Silt Clay Sand Silt Clay Sand Silt Clay Sand Silt Clay SIL	Moisture Level Level Dry Moist Wet Wet Wet Wet Wet Wet Wet Wet Wet We	Other Remarks/Notes:
LIY	w= w=	1136	712	31,6	7427 136.0	Sray Olive Sellow Red Light Dark Tan Brown Gray Olive Yellow Red	Sand Silt Clay Gravel Rock Sand Silt Clay	Moist Wet Dry Moist Wet	

		Other Remarks/Notes:									
		Moisture Level	Dry Moist Wet								
		Primary Soil Type	Gravel Rock Sand Silt Clay								
eening		Soil Color	Light Dark Tan Brown Gray Olive Yellow Red								
Field Scr	Date:	PID Reading /PF	0, 17	Sett	11-5	1.00					
SWA		Temp (°C)	t10%		Fac	E: 10°C					
		EC (mS)	Q (8		500	CD1 0					
		Collection Time:	olher		onhi	NST					
	Location Name:	Sample Name:	L-16	DG estador	al Europerson 10"	ÖVArsorray -4-0.5	-				

Location Name: Minuk Somple Name: Collect Time Sourt S				P				
Sample Name: Collect Swl Sample Name: Filme Sulf Swl Sulf Swl Sulf Sulf Sulf<				Date: 7/13	119			
5wl 5wl 844 * 5wl 858 * L 4 858 LS 439 LS 439	ction _E C Ne:	t (sm) ;	Temp (°C)	PID Reading /PF	Soil Color	Primary Soil Type	Moisture Level	Other Remarks/Notes:
* 5wl 658 * L4 936 L5 439 L5 439	Ó	તપ છ	10.0	1.9	Light- Dark	Gravel Roek	140	
* 5wl 858 * L 4 936 LS 439 LS 439					Tan Brewn	Sand Silt	Moist	
* L 4 LS LS: a * 1055	5	16.	30. L	(.)	uray Ulive Yellow Red	Clay	Wet	
LS 439 LS.3 * 1058	ن بو	34	30.4	{	Light Dark	Gravel Rock	2	
L5.3 * 1058	•	-			Tan Brown Gray Olive	Sand Silt	Moist	
1058	<u>5</u>	-	51.2	5.2	Yellow Red	Clay	Wet	
	0 0	ר <u>ו</u> ת זיו	5a.4	3,0	Light Dark	Gravel Rock	20	
					Tan Brown Grav Olive	Sand Silt	Moist	
43:	3	۶£.	27.9	3.2	Yellow Red	Clay	Wet	
٢. 6. 2	0	95.	31-3	5. Υ	Light Dark	Gravel Bork	è	
					Tan Brown	Sand Silt	Moist	
L7 934	د د	£ 8.	24.0	33.6	ray Olive fellow Red	Clay	Wet	
Poll * 6.47	0	38	31.3	2. 4 4	Light Dark	Graval Dort	ě	
				<u> </u>	Tan Brown	Sand Silt	Maist	
L13 949	9 1.	36	30.0	r N	Gray Olive fellow Red	Clay	Wet	
L14 953	ن م	67	81.2	s.p	.ight Dark	Geniol Deal	à	
					Tan Brown	Sand Silt	Moist	
L[4 3 * [131	1	36	33.4	5.5	ellow Red	Glay	Wet	
L13. 2 * 1025	ن مر	56	50.7	بر م	ight Dark	Control Bank	d	
		<u>.</u>			Tan Brown	Sand Silt	Moist	
L9 1139	رم ح	.15	33.2	1	ellow Red	Clay	Wet	
C9.2 1310	 0	2 67	34.5	-	ight Dark	Gravel Bork	ě	
					an Brown	Sand Silt	Maist	
C15 ¥	0	.3 2	33.u	5.4	ellow Red	Clay	Wet	
L6.3 [258	0	30	34.8	73.8	ight Dark	Gravel Rock	Dry	
1.6.4			C 112	Ŭ	aray Olive	Sand Silt	Moist	
(3(5	0	64	f . 40	4.0	'ellow Red	Cray	Wet	

				Field Scr	eening			
Location Name: Witght hade				Date:	7/12/19			
Sample Name:	Collection Time:	EC (mS)	Temp (°C)	PID Reading /PF	Soil Calor	Primary Soil Type	Moisture Level	Other Remarks/Notes:
C 6.5 *	1337	0: 3 X	34.7	3.7	Light Dark			
					Tan Brown) Gravel Rock Sand Silt	Dry Moist	
L 9.3	1343	6.43	34.5	l	Gray Olive Yellow Red	Clay	Wet	
し 4. ユ *	1349	0.33	35.3	{	Light Dark	Gravel Bock	è	
					Tan Brown Grav Olive	Sand Silt	Moist	
L12 *	Rohl	0.37	34 Y	6.4	Yellow Red	Clay	Wet	
	1413	l	ļ	er 1	Light Dark	Gravel Rock	δ	
					fan Brown Grav Olive	Sand Silt	Moist	
56.5 ¥	1433	6.23	33.2	3.4	Yellow Red	Clay	Wet	
500 d *	1435	6,40	34,4	×. ×	Light Dark	Gravel Rock	20	
					Fran Brown Grav Olive	Sand Silt	Moist	
5w 2 *	1458	0.35	33.6	2.1	Yeliow Red	Clay	Wet	
					Light Dark	Gravel Rock	2	
					Fran Brown Grav Olive	Sand Silt	Moist	
				100 - 100 -	Yellow Red	Clay	Wet	
					Light Dark	Gravel Rock	D	
					Flan Brown Gray Olive	Sand Silt	Moist	
					Yellow Red	Glav	Wet	
					Light Dark	Gravel Rock	Jor	
	-				Tan Brown Grav Olive	Sand Silt	Moist	
					Yellow Red	Clay	Wet	
					Light Dark	Gravel Rock	20	
					lan brown Gray Olive	Sand Silt	Moist	
				-	Yellow Red	Clay	Wet	
			644		Light Dark	Gravel Rock	ρıν	
					Grav Olive	Sand Silt	Moist	
					Yellow Red	Clay	Wet	

APPENDIX D LABORATORY ANALYTICAL REPORTS



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

June 25, 2019

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

OrderNo.: 1906925

RE: Nighthawk State 1

Dear Heather Patterson:

Hall Environmental Analysis Laboratory received 16 sample(s) on 6/18/2019 for the analyses presented in the following report.

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Date Reported: 6/25/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Souder, Miller & Associates		Cl	ient Sample II): L1		
Project:	Nighthawk State 1		(Collection Dat	e: 6 /1	14/2019 10:46:00 AM	
Lab ID:	1906925-001	Matrix: SOIL		Received Dat	e: 6/1	18/2019 9:15:00 AM	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst	CJS
Chloride		ND	60	mg/Kg	20	6/23/2019 9:58:49 PM	45748
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: JME
Diesel R	ange Organics (DRO)	ND	10	mg/Kg	1	6/20/2019 1:54:13 PM	45677
Motor Oi	I Range Organics (MRO)	ND	50	mg/Kg	1	6/20/2019 1:54:13 PM	45677
Surr: [DNOP	97.4	70-130	%Rec	1	6/20/2019 1:54:13 PM	45677
EPA MET	HOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline	Range Organics (GRO)	ND	4.8	mg/Kg	1	6/19/2019 2:02:46 PM	45636
Surr: E	3FB	103	73.8-119	%Rec	1	6/19/2019 2:02:46 PM	45636
EPA MET	HOD 8021B: VOLATILES					Analyst	: NSB
Benzene		ND	0.024	mg/Kg	1	6/19/2019 2:02:46 PM	45636
Toluene		ND	0.048	mg/Kg	1	6/19/2019 2:02:46 PM	45636
Ethylben	zene	ND	0.048	mg/Kg	1	6/19/2019 2:02:46 PM	45636
Xylenes,	Total	ND	0.095	mg/Kg	1	6/19/2019 2:02:46 PM	45636
Surr: 4	4-Bromofluorobenzene	101	80-120	%Rec	1	6/19/2019 2:02:46 PM	45636

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

Page 1 of 22

Date Reported: 6/25/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Souder, Miller & Associates		Cl	ient Sample II): L2	2	
Project:	Nighthawk State 1		(Collection Date	e: 6/1	14/2019 10:51:00 AM	
Lab ID:	1906925-002	Matrix: SOIL		Received Date	e: 6/1	18/2019 9:15:00 AM	
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analyst	CJS
Chloride		100	61	mg/Kg	20	6/23/2019 10:11:13 PM	45748
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: JME
Diesel Ra	ange Organics (DRO)	ND	9.9	mg/Kg	1	6/20/2019 3:07:29 PM	45677
Motor Oil	Range Organics (MRO)	ND	49	mg/Kg	1	6/20/2019 3:07:29 PM	45677
Surr: D	DNOP	99.7	70-130	%Rec	1	6/20/2019 3:07:29 PM	45677
EPA MET	HOD 8015D: GASOLINE RANG	E				Analyst	: NSB
Gasoline	Range Organics (GRO)	ND	5.0	mg/Kg	1	6/19/2019 2:25:25 PM	45636
Surr: E	3FB	102	73.8-119	%Rec	1	6/19/2019 2:25:25 PM	45636
EPA MET	HOD 8021B: VOLATILES					Analyst	: NSB
Benzene		ND	0.025	mg/Kg	1	6/19/2019 2:25:25 PM	45636
Toluene		ND	0.050	mg/Kg	1	6/19/2019 2:25:25 PM	45636
Ethylben	zene	ND	0.050	mg/Kg	1	6/19/2019 2:25:25 PM	45636
Xylenes,	Total	ND	0.099	mg/Kg	1	6/19/2019 2:25:25 PM	45636
Surr: 4	I-Bromofluorobenzene	99.2	80-120	%Rec	1	6/19/2019 2:25:25 PM	45636

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

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Date Reported: 6/25/2019

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Souder, Miller & Associates		Cl	ient Sample	e ID: Lá	3	
Project:	Nighthawk State 1		(Collection E)ate: 6/	14/2019 10:54:00 AM	
Lab ID:	1906925-003	Matrix: SOIL		Received I)ate: 6/	18/2019 9:15:00 AM	
Analyses		Result	RL	Qual Unit	s DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS					Analys	: CJS
Chloride		72	60	mg/ł	(g 20	6/23/2019 10:23:38 PN	45748
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS				Analys	: JME
Diesel Ra	ange Organics (DRO)	ND	9.4	mg/ł	۲g (6/20/2019 3:56:40 PM	45677
Motor Oil	Range Organics (MRO)	ND	47	mg/ł	۲g (6/20/2019 3:56:40 PM	45677
Surr: D	DNOP	90.3	70-130	%Re	ec 1	6/20/2019 3:56:40 PM	45677
EPA MET	HOD 8015D: GASOLINE RANG	E				Analys	: NSB
Gasoline	Range Organics (GRO)	ND	4.9	mg/ł	(g 1	6/19/2019 2:48:06 PM	45636
Surr: E	3FB	103	73.8-119	%Re	ec 1	6/19/2019 2:48:06 PM	45636
EPA MET	HOD 8021B: VOLATILES					Analys	: NSB
Benzene		ND	0.025	mg/ł	(g 1	6/19/2019 2:48:06 PM	45636
Toluene		ND	0.049	mg/ł	۲g (6/19/2019 2:48:06 PM	45636
Ethylben	zene	ND	0.049	mg/ł	۲g (6/19/2019 2:48:06 PM	45636
Xylenes,	Total	ND	0.099	mg/ł	۲g (6/19/2019 2:48:06 PM	45636
Surr: 4	I-Bromofluorobenzene	101	80-120	%Re	ec 1	6/19/2019 2:48:06 PM	45636

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

- 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

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S % Recovery outside of range due to dilution or matrix

Date Reported: 6/25/2019

6/19/2019 3:56:14 PM 45636

CLIENT: Souder, Miller & Associates Project: Nighthawk State 1		Cl (ient Sample II Collection Date): L4 e: 6/1	14/2019 10:56:00 AM	
Lab ID: 1906925-004	Matrix: SOIL		Received Date	e: 6/1	18/2019 9:15:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	CJS
Chloride	1900	60	mg/Kg	20	6/23/2019 10:36:03 PM	45748
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst:	JME
Diesel Range Organics (DRO)	17	9.9	mg/Kg	1	6/20/2019 4:21:13 PM	45677
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	6/20/2019 4:21:13 PM	45677
Surr: DNOP	94.4	70-130	%Rec	1	6/20/2019 4:21:13 PM	45677
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst:	NSB
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	6/19/2019 3:56:14 PM	45636
Surr: BFB	103	73.8-119	%Rec	1	6/19/2019 3:56:14 PM	45636
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.025	mg/Kg	1	6/19/2019 3:56:14 PM	45636
Toluene	ND	0.049	mg/Kg	1	6/19/2019 3:56:14 PM	45636
Ethylbenzene	ND	0.049	mg/Kg	1	6/19/2019 3:56:14 PM	45636
Xylenes, Total	ND	0.098	mg/Kg	1	6/19/2019 3:56:14 PM	45636

98.7

80-120

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

Surr: 4-Bromofluorobenzene

S % Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

- B Analyte detected in the associated Method Blank
- E Value above quantitation range

%Rec 1

- J Analyte detected below quantitation limits
- P Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates Project: Nighthawk State 1		Cl	ient Sample II Collection Date): L5	; 14/2019 11:00:00 AM	
Lab ID: 1906925-005	Matrix: SOIL	· · · ·	Received Date	e: 6/1	18/2019 9:15:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	t: CJS
Chloride	660	60	mg/Kg	20	6/23/2019 10:48:28 PM	1 45748
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analys	t: JME
Diesel Range Organics (DRO)	210	9.8	mg/Kg	1	6/20/2019 11:54:01 AM	1 45677
Motor Oil Range Organics (MRO)	240	49	mg/Kg	1	6/20/2019 11:54:01 AM	1 45677
Surr: DNOP	97.3	70-130	%Rec	1	6/20/2019 11:54:01 AN	1 45677
EPA METHOD 8015D: GASOLINE RANGE					Analys	t: NSB
Gasoline Range Organics (GRO)	ND	5.0	mg/Kg	1	6/19/2019 4:18:59 PM	45636
Surr: BFB	103	73.8-119	%Rec	1	6/19/2019 4:18:59 PM	45636
EPA METHOD 8021B: VOLATILES					Analys	t: NSB
Benzene	ND	0.025	mg/Kg	1	6/19/2019 4:18:59 PM	45636
Toluene	ND	0.050	mg/Kg	1	6/19/2019 4:18:59 PM	45636
Ethylbenzene	ND	0.050	mg/Kg	1	6/19/2019 4:18:59 PM	45636
Xylenes, Total	ND	0.099	mg/Kg	1	6/19/2019 4:18:59 PM	45636
Surr: 4-Bromofluorobenzene	98.8	80-120	%Rec	1	6/19/2019 4:18:59 PM	45636

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
- Н 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

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/25/2019

CLIENT:	Souder, Miller & Associates		Cl	ient Sa	ample II	D: L6		
Project:	Nighthawk State 1		(Collect	ion Dat	e: 6/1-	4/2019 11:01:00 AM	
Lab ID:	1906925-006	Matrix: SOIL		Receiv	ved Dat	e: 6/1	8/2019 9:15:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS						Analyst:	CJS
Chloride		8300	300		mg/Kg	100	6/24/2019 3:46:48 PM	45748
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	JME
Diesel Ra	ange Organics (DRO)	3300	94		mg/Kg	10	6/20/2019 10:17:17 AM	45677
Motor Oil	Range Organics (MRO)	2400	470		mg/Kg	10	6/20/2019 10:17:17 AM	45677
Surr: D	NOP	0	70-130	S	%Rec	10	6/20/2019 10:17:17 AM	45677
EPA MET	HOD 8015D: GASOLINE RANG	E					Analyst:	NSB
Gasoline	Range Organics (GRO)	ND	4.9		mg/Kg	1	6/19/2019 5:04:21 PM	45636
Surr: E	3FB	103	73.8-119		%Rec	1	6/19/2019 5:04:21 PM	45636
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB
Benzene		ND	0.024		mg/Kg	1	6/19/2019 5:04:21 PM	45636
Toluene		ND	0.049		mg/Kg	1	6/19/2019 5:04:21 PM	45636
Ethylben	zene	ND	0.049		mg/Kg	1	6/19/2019 5:04:21 PM	45636
Xylenes,	Total	ND	0.098		mg/Kg	1	6/19/2019 5:04:21 PM	45636
Surr: 4	-Bromofluorobenzene	101	80-120		%Rec	1	6/19/2019 5:04:21 PM	45636

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

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/25/2019

CLIENT:Souder, Miller & AssociatesProject:Nighthawk State 1Lab ID:1906925-007	Matrix: SOIL	Cl (ient Sa Collect Recei	ample II ion Dat ved Dat	D: L7 e: 6/1 e: 6/1	4/2019 12:48:00 PM 8/2019 9:15:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	CJS
Chloride	5100	300		mg/Kg	100	6/24/2019 4:11:36 PM	45748
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	JME
Diesel Range Organics (DRO)	7500	100		mg/Kg	10	6/20/2019 10:41:24 AM	45677
Motor Oil Range Organics (MRO)	5500	500		mg/Kg	10	6/20/2019 10:41:24 AM	45677
Surr: DNOP	0	70-130	S	%Rec	10	6/20/2019 10:41:24 AM	45677
EPA METHOD 8015D: GASOLINE RANG	E					Analyst:	NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2019 5:27:04 PM	45636
Surr: BFB	99.0	73.8-119		%Rec	1	6/19/2019 5:27:04 PM	45636
EPA METHOD 8021B: VOLATILES						Analyst:	NSB
Benzene	ND	0.025		mg/Kg	1	6/19/2019 5:27:04 PM	45636
Toluene	ND	0.050		mg/Kg	1	6/19/2019 5:27:04 PM	45636
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2019 5:27:04 PM	45636
Xylenes, Total	ND	0.099		mg/Kg	1	6/19/2019 5:27:04 PM	45636
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	1	6/19/2019 5:27:04 PM	45636

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

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates	Client Sample ID: L8							
Project: Nighthawk State 1	Collection Date: 6/14/2019 12:50:00 PM							
Lab ID: 1906925-008	Matrix: SOIL Received Date: 6/18/2019 9:15:00 A							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS						Analyst	CJS	
Chloride	ND	59		mg/Kg	20	6/23/2019 11:50:31 PM	45748	
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	: JME	
Diesel Range Organics (DRO)	16	9.9		mg/Kg	1	6/20/2019 4:45:44 PM	45677	
Motor Oil Range Organics (MRO)	52	49		mg/Kg	1	6/20/2019 4:45:44 PM	45677	
Surr: DNOP	132	70-130	S	%Rec	1	6/20/2019 4:45:44 PM	45677	
EPA METHOD 8015D: GASOLINE RANGE	E					Analyst	: NSB	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2019 6:12:24 PM	45636	
Surr: BFB	100	73.8-119		%Rec	1	6/19/2019 6:12:24 PM	45636	
EPA METHOD 8021B: VOLATILES						Analyst	: NSB	
Benzene	ND	0.025		mg/Kg	1	6/19/2019 6:12:24 PM	45636	
Toluene	ND	0.050		mg/Kg	1	6/19/2019 6:12:24 PM	45636	
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2019 6:12:24 PM	45636	
Xylenes, Total	ND	0.10		mg/Kg	1	6/19/2019 6:12:24 PM	45636	
Surr: 4-Bromofluorobenzene	97.9	80-120		%Rec	1	6/19/2019 6:12:24 PM	45636	

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

- 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

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S % Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

Lab Order 1906925 Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates Project: Nighthawk State 1	Client Sample ID: L9 Collection Date: 6/14/2019 3:37:00 PM							
Lab ID: 1906925-009	Matrix: SOIL		Received Date: 6/18/2019 9:15:00 AM					
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS					Analyst	CJS		
Chloride	1800	60	mg/Kg	20	6/24/2019 12:02:55 AM	45748		
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS Analyst:								
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	6/20/2019 5:35:16 PM	45677		
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	6/20/2019 5:35:16 PM	45677		
Surr: DNOP	120	70-130	%Rec	1	6/20/2019 5:35:16 PM	45677		
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst	NSB		
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	6/19/2019 6:35:03 PM	45636		
Surr: BFB	104	73.8-119	%Rec	1	6/19/2019 6:35:03 PM	45636		
EPA METHOD 8021B: VOLATILES					Analyst	NSB		
Benzene	ND	0.024	mg/Kg	1	6/19/2019 6:35:03 PM	45636		
Toluene	ND	0.049	mg/Kg	1	6/19/2019 6:35:03 PM	45636		
Ethylbenzene	ND	0.049	mg/Kg	1	6/19/2019 6:35:03 PM	45636		
Xylenes, Total	ND	0.098	mg/Kg	1	6/19/2019 6:35:03 PM	45636		
Surr: 4-Bromofluorobenzene	100	80-120	%Rec	1	6/19/2019 6:35:03 PM	45636		

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

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Date Reported: 6/25/2019

CLIENT:	Souder, Miller & Associates	client Sample ID: L10									
Project:	Nighthawk State 1		Collection Date: 6/14/2019 12:54:00 PM								
Lab ID:	1906925-010	Matrix: SOIL		Received Dat	e: 6 /1	18/2019 9:15:00 AM					
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch				
EPA MET	THOD 300.0: ANIONS					Analyst	CJS				
Chloride		170	60	mg/Kg	20	6/24/2019 12:15:20 AM	45748				
EPA MET	THOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: JME				
Diesel R	ange Organics (DRO)	86	9.3	mg/Kg	1	6/20/2019 6:00:15 PM	45677				
Motor Oil Range Organics (MRO)		230	47	mg/Kg	1	6/20/2019 6:00:15 PM	45677				
Surr: [DNOP	97.0	70-130	%Rec	1	6/20/2019 6:00:15 PM	45677				
ЕРА МЕТ	THOD 8015D: GASOLINE RANG	E				Analyst	: NSB				
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	6/19/2019 6:57:41 PM	45636				
Surr: E	BFB	93.4	73.8-119	%Rec	1	6/19/2019 6:57:41 PM	45636				
ЕРА МЕТ	THOD 8021B: VOLATILES					Analyst	: NSB				
Benzene)	ND	0.025	mg/Kg	1	6/19/2019 6:57:41 PM	45636				
Toluene		ND	0.049	mg/Kg	1	6/19/2019 6:57:41 PM	45636				
Ethylben	izene	ND	0.049	mg/Kg	1	6/19/2019 6:57:41 PM	45636				
Xylenes,	Total	ND	0.098	mg/Kg	1	6/19/2019 6:57:41 PM	45636				
Surr: 4	4-Bromofluorobenzene	85.1	80-120	%Rec	1	6/19/2019 6:57:41 PM	45636				

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
- Н Holding times for preparation or analysis exceeded

Hall Environmental Analysis Laboratory, Inc.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates	Client Sample ID: L11								
Project: Nighthawk State 1	Collection Date: 6/14/2019 12:55:00 PM								
Lab ID: 1906925-011	Matrix: SOIL Received Date: 6/18/2019 9:15:00 AM								
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch			
EPA METHOD 300.0: ANIONS					Analyst:	CJS			
Chloride	150	60	mg/Kg	20	6/24/2019 12:27:44 AM	45748			
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst:	JME			
Diesel Range Organics (DRO)	9.6	9.5	mg/Kg	1	6/20/2019 6:50:21 PM	45677			
Motor Oil Range Organics (MRO)	ND	48	mg/Kg	1	6/20/2019 6:50:21 PM	45677			
Surr: DNOP	94.3	70-130	%Rec	1	6/20/2019 6:50:21 PM	45677			
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst:	NSB			
Gasoline Range Organics (GRO)	ND	4.8	mg/Kg	1	6/19/2019 12:18:19 PM	45667			
Surr: BFB	95.1	73.8-119	%Rec	1	6/19/2019 12:18:19 PM	45667			
EPA METHOD 8021B: VOLATILES					Analyst:	NSB			
Benzene	ND	0.024	mg/Kg	1	6/19/2019 12:18:19 PM	45667			
Toluene	ND	0.048	mg/Kg	1	6/19/2019 12:18:19 PM	45667			
Ethylbenzene	ND	0.048	mg/Kg	1	6/19/2019 12:18:19 PM	45667			
Xylenes, Total	ND	0.097	mg/Kg	1	6/19/2019 12:18:19 PM	45667			
Surr: 4-Bromofluorobenzene	103	80-120	%Rec	1	6/19/2019 12:18:19 PM	45667			

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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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S % Recovery outside of range due to dilution or matrix

Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates Project: Nighthawk State 1	Client Sample ID: L12 Collection Date: 6/14/2019 12:58:00 PM						
Lab ID: 1906925-012	Matrix: SOIL		Recei	ved Dat	e: 6/1	8/2019 9:15:00 AM	
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst	CJS
Chloride	5400	300		mg/Kg	100	6/24/2019 4:24:00 PM	45748
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	JME
Diesel Range Organics (DRO)	2000	99		mg/Kg	10	6/20/2019 11:05:36 AM	45677
Motor Oil Range Organics (MRO)	2400	500		mg/Kg	10	6/20/2019 11:05:36 AM	45677
Surr: DNOP	0	70-130	S	%Rec	10	6/20/2019 11:05:36 AM	45677
EPA METHOD 8015D: GASOLINE RANGE	E					Analyst	NSB
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2019 1:28:43 PM	45667
Surr: BFB	91.1	73.8-119		%Rec	1	6/19/2019 1:28:43 PM	45667
EPA METHOD 8021B: VOLATILES						Analyst	NSB
Benzene	ND	0.025		mg/Kg	1	6/19/2019 1:28:43 PM	45667
Toluene	ND	0.050		mg/Kg	1	6/19/2019 1:28:43 PM	45667
Ethylbenzene	ND	0.050		mg/Kg	1	6/19/2019 1:28:43 PM	45667
Xylenes, Total	ND	0.099		mg/Kg	1	6/19/2019 1:28:43 PM	45667
Surr: 4-Bromofluorobenzene	98.6	80-120		%Rec	1	6/19/2019 1:28:43 PM	45667

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

Hall Environmental Analysis Laboratory, Inc.

- 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

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Hall Environmental Analysis Laboratory, Inc. Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates Project: Nighthawk State 1		Client Sample ID: L13 Collection Date: 6/14/2019 2:35:00 PM							
Lab ID: 1906925-013	Matrix: SOIL	Matrix: SOIL Received Date: 6/18/2019 9:15:00 AM							
Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch		
EPA METHOD 300.0: ANIONS						Analyst	CJS		
Chloride	1500	60		mg/Kg	20	6/24/2019 12:52:33 AM	45748		
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst	JME		
Diesel Range Organics (DRO)	4300	97		mg/Kg	10	6/20/2019 11:29:48 AM	45677		
Motor Oil Range Organics (MRO)	3400	490		mg/Kg	10	6/20/2019 11:29:48 AM	45677		
Surr: DNOP	0	70-130	S	%Rec	10	6/20/2019 11:29:48 AM	45677		
EPA METHOD 8015D: GASOLINE RANGE	E					Analyst	NSB		
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/19/2019 3:02:34 PM	45667		
Surr: BFB	111	73.8-119		%Rec	1	6/19/2019 3:02:34 PM	45667		
EPA METHOD 8021B: VOLATILES						Analyst	NSB		
Benzene	ND	0.024		mg/Kg	1	6/19/2019 3:02:34 PM	45667		
Toluene	ND	0.049		mg/Kg	1	6/19/2019 3:02:34 PM	45667		
Ethylbenzene	ND	0.049		mg/Kg	1	6/19/2019 3:02:34 PM	45667		
Xylenes, Total	ND	0.098		mg/Kg	1	6/19/2019 3:02:34 PM	45667		
Surr: 4-Bromofluorobenzene	105	80-120		%Rec	1	6/19/2019 3:02:34 PM	45667		

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

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Date Reported: 6/25/2019

CLIENT:	Souder, Miller & Associates	Client Sample ID: L14							
Project:	Nighthawk State 1	Collection Date: 6/14/2019 2:36:00 PM							
Lab ID:	1906925-014	Matrix: SOIL		Recei	ved Dat	e: 6/1	18/2019 9:15:00 AM		
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch	
EPA MET	HOD 300.0: ANIONS						Analyst	CJS	
Chloride		1500	60		mg/Kg	20	6/24/2019 1:04:57 AM	45748	
EPA MET	HOD 8015M/D: DIESEL RANGE	E ORGANICS					Analyst	JME	
Diesel R	ange Organics (DRO)	210	9.9		mg/Kg	1	6/20/2019 7:15:06 PM	45677	
Motor Oil Range Organics (MRO)		650	50		mg/Kg	1	6/20/2019 7:15:06 PM	45677	
Surr: [DNOP	159	70-130	S	%Rec	1	6/20/2019 7:15:06 PM	45677	
EPA MET	HOD 8015D: GASOLINE RANG	E					Analyst	NSB	
Gasoline	Range Organics (GRO)	ND	5.0		mg/Kg	1	6/19/2019 3:49:38 PM	45667	
Surr: E	3FB	95.2	73.8-119		%Rec	1	6/19/2019 3:49:38 PM	45667	
ЕРА МЕТ	HOD 8021B: VOLATILES						Analyst	NSB	
Benzene		ND	0.025		mg/Kg	1	6/19/2019 3:49:38 PM	45667	
Toluene		ND	0.050		mg/Kg	1	6/19/2019 3:49:38 PM	45667	
Ethylben	zene	ND	0.050		mg/Kg	1	6/19/2019 3:49:38 PM	45667	
Xylenes, Total		ND	0.099		mg/Kg	1	6/19/2019 3:49:38 PM	45667	
Surr: 4-Bromofluorobenzene		101	80-120		%Rec	1	6/19/2019 3:49:38 PM	45667	

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

Hall Environmental Analysis Laboratory, Inc.

- 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

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Hall Environmental Analysis Laboratory, Inc.

Date Reported: 6/25/2019

CLIENT: Souder, Miller & Associates Client Sample ID: L15										
Project: Nighthawk State 1	Collection Date: 6/14/2019 3:46:00 PM									
Lab ID: 1906925-015	Matrix: SOIL		Received Date: 6/18/2019 9:15:00 AM							
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch				
EPA METHOD 300.0: ANIONS					Analyst	CJS				
Chloride	76	60	mg/Kg	20	6/24/2019 1:17:21 AM	45748				
EPA METHOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	JME				
Diesel Range Organics (DRO)	88	9.8	mg/Kg	1	6/20/2019 8:29:14 PM	45677				
Motor Oil Range Organics (MRO)	64	49	mg/Kg	1	6/20/2019 8:29:14 PM	45677				
Surr: DNOP	94.5	70-130	%Rec	1	6/20/2019 8:29:14 PM	45677				
EPA METHOD 8015D: GASOLINE RANGE	E				Analyst	: NSB				
Gasoline Range Organics (GRO)	ND	4.9	mg/Kg	1	6/19/2019 4:13:10 PM	45667				
Surr: BFB	94.8	73.8-119	%Rec	1	6/19/2019 4:13:10 PM	45667				
EPA METHOD 8021B: VOLATILES					Analyst	: NSB				
Benzene	ND	0.025	mg/Kg	1	6/19/2019 4:13:10 PM	45667				
Toluene	ND	0.049	mg/Kg	1	6/19/2019 4:13:10 PM	45667				
Ethylbenzene	ND	0.049	mg/Kg	1	6/19/2019 4:13:10 PM	45667				
Xylenes, Total	ND	0.098	mg/Kg	1	6/19/2019 4:13:10 PM	45667				
Surr: 4-Bromofluorobenzene	101	80-120	%Rec	1	6/19/2019 4:13:10 PM	45667				

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
- Н 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

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Date Reported: 6/25/2019

-									
CLIENT:	Souder, Miller & Associates	tes Client Sample ID: L16							
Project:	Nighthawk State 1	Collection Date: 6/14/2019 10:20:00 AM							
Lab ID:	1906925-016	Matrix: SOIL	18/2019 9:15:00 AM						
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch		
EPA MET	HOD 300.0: ANIONS					Analyst	CJS		
Chloride		ND	60	mg/Kg	20	6/24/2019 1:54:35 AM	45748		
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	: JME		
Diesel Ra	ange Organics (DRO)	13	9.9	mg/Kg	1	6/20/2019 9:18:36 PM	45677		
Motor Oi	I Range Organics (MRO)	ND	50	mg/Kg	1	6/20/2019 9:18:36 PM	45677		
Surr: [ONOP	111	70-130	%Rec	1	6/20/2019 9:18:36 PM	45677		
EPA MET	HOD 8015D: GASOLINE RANGE	E				Analyst	: NSB		
Gasoline	Range Organics (GRO)	ND	4.9	mg/Kg	1	6/19/2019 5:23:40 PM	45667		
Surr: E	3FB	96.7	73.8-119	%Rec	1	6/19/2019 5:23:40 PM	45667		
EPA MET	HOD 8021B: VOLATILES					Analyst	: NSB		
Benzene		ND	0.025	mg/Kg	1	6/19/2019 5:23:40 PM	45667		
Toluene		ND	0.049	mg/Kg	1	6/19/2019 5:23:40 PM	45667		
Ethylben	zene	ND	0.049	mg/Kg	1	6/19/2019 5:23:40 PM	45667		
Xylenes,	Total	ND	0.099	mg/Kg	1	6/19/2019 5:23:40 PM	45667		
Surr: 4	4-Bromofluorobenzene	104	80-120	%Rec	1	6/19/2019 5:23:40 PM	45667		

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

Qualifiers: *

- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded

Value exceeds Maximum Contaminant Level.

- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit
- S % Recovery outside of range due to dilution or matrix

Hall Environmental Analysis Laboratory, Inc.

- 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

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190692	WO#:
25-Jun-19	

Client: Project:	Soude Night	er, Miller & Associa hawk State 1	ates						
Sample ID:	MB-45748	SampType:	mblk	Tes	tCode: EPA Method	300.0: Anions			
Client ID:	PBS	Batch ID:	45748	F	RunNo: 60849				
Prep Date:	6/23/2019	Analysis Date:	6/23/2019	8	SeqNo: 2059968	Units: mg/Kg	l		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND 1	.5						
Sample ID:	LCS-45748	SampType:	lcs	Tes	tCode: EPA Method	300.0: Anions			
Client ID:	LCSS	Batch ID:	45748	F	RunNo: 60849				
Prep Date:	6/23/2019	Analysis Date:	6/23/2019	5	SeqNo: 2059969	Units: mg/Kg	l		
Analyte		Result PQ	L SPK value	SPK Ref Val	%REC LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14 1	.5 15.00	0	95.1 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

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Souder, Miller & Associates

	25-Jun-19

Project:	Nighthaw	k State 1									
Sample ID:	MB-45677	Samp	Type: M	BLK	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	PBS	Batc	h ID: 45	677	F	RunNo: 6	0805				
Prep Date:	6/19/2019	Analysis I	Date: 6	/20/2019	S	SeqNo: 2	058335	Units: mg/l	٢g		
Analyte		Result	PQI	SPK value	SPK Ref Val	%REC	I owl imit	Hiahl imit	%RPD	RPDI imit	Qual
Diesel Range C	Drganics (DRO)	ND	10	0111110100	0	,		·g	, or a - 2		Q UG
Motor Oil Rang	e Organics (MRO)	ND	50								
Surr: DNOP	J	14		10.00		139	70	130			S
Sample ID:	LCS-45677	Samp	Type: LC	cs	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	LCSS	Batc	h ID: 45	677	F	RunNo: 6	0805				
Prep Date:	6/19/2019	Analysis [Date: 6	/20/2019	5	SeqNo: 2	058336	Units: mg/ł	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	47	10	50.00	0	94.0	63.9	124			
Surr: DNOP		4.9		5.000		97.2	70	130			
Sample ID:	1906925-001AMS	Samp	Type: M	s	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	L1	Batc	h ID: 45	677	F	RunNo: 6	0805				
Prep Date:	6/19/2019	Analysis [Date: 6/	/20/2019	S	SeqNo: 2	058359	Units: mg/l	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Drganics (DRO)	43	10	49.90	0	86.1	57	142			
Surr: DNOP		4.6		4.990		93.1	70	130			
Sample ID:	1906925-001AMSI	Samp	Type: M	SD	Tes	tCode: El	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID:	L1	Batc	h ID: 45	677	F	RunNo: 6	0805				
Prep Date:	6/19/2019	Analysis [Date: 6/	/20/2019	S	SeqNo: 2	058360	Units: mg/l	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range C	Organics (DRO)	41	9.5	47.44	0	86.9	57	142	4.11	20	
Surr: DNOP		4.5		4.744		93.9	70	130	0	0	

Qualifiers:

Client:

- * 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

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WO#: 1906925 25-Jun-19

WO#:	1906	925

25-Jun-19

Client:	Souder, N	Ailler & A	ssociate	28							
Sample ID:	MB-45667	Samp	ype: ME	3LK	Tes	tCode: El	PA Method	8015D: Gasc	oline Rang	e	
Client ID:	PBS	Batcl	ו ID: 45	667	ŀ	RunNo: 6	0769				
Prep Date:	6/18/2019	Analysis D)ate: 6/	19/2019	S	SeqNo: 20	056866	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang Surr: BFB	e Organics (GRO)	ND 970	5.0	1000		96.8	73.8	119			
Sample ID:	LCS-45667	SampT	ype: LC	;s	Tes	tCode: EF	PA Method	8015D: Gasc	line Rang	6	
Client ID:	LCSS	Batcl	n ID: 45	667	F	RunNo: 6	0769				
Prep Date:	6/18/2019	Analysis D)ate: 6/	19/2019	S	SeqNo: 20	056867	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	24	5.0	25.00	0	94.2	80.1	123			
Surr: BFB		1100		1000		110	73.8	119			
Sample ID:	1906925-011AMS	SampT	ype: MS	3	Tes	tCode: EF	PA Method	8015D: Gasc	line Rang	e	
Client ID:	L11	Batcl	n ID: 45	667	F	RunNo: 60	0769				
Prep Date:	6/18/2019	Analysis D)ate: 6/	19/2019	S	SeqNo: 20	056870	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	24	5.0	24.83	0	96.1	69.1	142			
Surr: BFB		1100		993.0		109	73.8	119			
Sample ID:	1906925-011AMS	Samp1	ype: MS	SD	Tes	tCode: El	PA Method	8015D: Gasc	line Rang	e	
Client ID:	L11	Batcl	n ID: 45	667	F	RunNo: 60	0769				
Prep Date:	6/18/2019	Analysis D)ate: 6/	19/2019	S	SeqNo: 20	056871	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	23	4.9	24.44	0	92.8	69.1	142	5.05	20	
Surr: BFB		1100		977.5		108	73.8	119	0	0	
Sample ID:	MB-45636	SampT	ype: ME	3LK	Tes	tCode: EF	PA Method	8015D: Gasc	oline Rang	e	
Client ID:	PBS	Batcl	n ID: 45	636	F	RunNo: 60	0770				
Prep Date:	6/17/2019	Analysis D)ate: 6/	19/2019	S	SeqNo: 20	056901	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Rang	e Organics (GRO)	ND	5.0								
Surr: BFB		1000		1000		104	73.8	119			
Sample ID:	LCS-45636	SampT	ype: LC	s	Tes	tCode: EF	PA Method	8015D: Gasc	oline Rang	e	
Client ID:	LCSS	Batcl	n ID: 45	636	F	RunNo: 60	0770				
Prep Date:	6/17/2019	Analysis E)ate: 6/	19/2019	S	SeqNo: 20	056902	Units: mg/k	٢g		
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
- Н Holding times for preparation or analysis exceeded

ND Not Detected at the Reporting Limit

- PQL Practical Quanitative Limit
- % Recovery outside of range due to dilution or matrix S

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits Р

Sample pH Not In Range RL Reporting Limit

WO#:	1906925
	25-Jun-19

Client: Project:	Souder, Mill Nighthawk S	er & Asso tate 1	ciate	S							
Sample ID: LCS-45	636	SampType	e: LC	s	Tes	tCode: EF	PA Method	8015D: Gaso	line Rang	e	
Client ID: LCSS		Batch ID	: 456	636	R	RunNo: 60	0770				
Prep Date: 6/17/2	019 Ar	alysis Date	: 6/ 1	19/2019	S	SeqNo: 20	056902	Units: mg/K	ξg		
Analyte	F	Result F	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organic	s (GRO)	25	5.0	25.00	0	99.1	80.1	123			
Surr: BFB		1100		1000		114	73.8	119			

Qualifiers:

- * Value exceeds Maximum Contaminant Level.
- D Sample Diluted Due to Matrix
- H Holding times for preparation or analysis exceeded
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- 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

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QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#:	1906925

25-Jun-19

Client:	Souder, N	Ailler & A	ssociate	s							
Project:	Nighthaw	k State 1									
Sample ID:	MB-45667	Samp	Туре: МЕ	BLK	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	PBS	Batc	h ID: 45	667	F	RunNo: 6	0769				
Prep Date:	6/18/2019	Analysis [Date: 6/	19/2019	S	SeqNo: 20	056887	Units: mg/k	٢g		
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-Bron	nofluorobenzene	1.1		1.000		105	80	120			
Sample ID:	LCS-45667	Samp ⁻	Туре: LC	S	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	LCSS	Batc	h ID: 45	667	F	RunNo: 60	0769				
Prep Date:	6/18/2019	Analysis [Date: 6/	19/2019	S	SeqNo: 20	056888	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.0	0.025	1.000	0	103	80	120			
Toluene		1.1	0.050	1.000	0	108	80	120			
Ethylbenzene		1.1	0.050	1.000	0	110	80	120			
Xylenes, Total		3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bron	nofluorobenzene	1.1		1.000		108	80	120			
Sample ID:	1906925-012AMS	Samp	Туре: МS	6	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	L12	Batc	h ID: 45	667	F	RunNo: 60	0769				
Prep Date:	6/18/2019	Analysis [Date: 6/	19/2019	S	SeqNo: 20	056891	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.3	0.025	0.9980	0	129	63.9	127			S
Toluene		1.4	0.050	0.9980	0.01102	136	69.9	131			S
Ethylbenzene		1.4	0.050	0.9980	0	142	71	132			S
Xylenes, Total		4.2	0.10	2.994	0.01996	141	71.8	131			S
Surr: 4-Bron	nofluorobenzene	1.1		0.9980		113	80	120			
Sample ID:	1906925-012AMS	D Samp	Туре: М	SD	Tes	tCode: EF	PA Method	8021B: Vola	tiles		
Client ID:	L12	Batc	h ID: 45	667	F	RunNo: 6	0769				
Prep Date:	6/18/2019	Analysis [Date: 6/	19/2019	S	SeqNo: 20	056892	Units: mg/k	٢g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		1.1	0.024	0.9718	0	115	63.9	127	14.5	20	
Toluene		1.2	0.049	0.9718	0.01102	120	69.9	131	14.9	20	
Ethylbenzene		1.2	0.049	0.9718	0	124	71	132	16.3	20	
Xylenes, Total		3.6	0.097	2.915	0.01996	123	71.8	131	16.4	20	
Surr: 4-Bron	nofluorobenzene	1.0		0.9718		103	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

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WO#:	1906925

25-Jun-19

Client: Soud Project: Nigl	der, Miller & Anthawk State 1	Associate	es							
Sample ID: MB-45636	Samp	Type: ME	BLK	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: PBS	Batc	h ID: 45	636	F	lunNo: 6	0770				
Prep Date: 6/17/2019	Analysis I	Date: 6/	19/2019	S	eqNo: 2	056931	Units: mg/k	٢g		
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		101	80	120			
Sample ID: LCS-45636	Samp	Type: LC	s	Tes	tCode: El	PA Method	8021B: Vola	tiles		
Client ID: LCSS	Bato	h ID: 45	636	F	lunNo: 6	0770				
Prep Date: 6/17/2019	Analysis I	Date: 6/	19/2019	S	eqNo: 2	056932	Units: mg/k	٢g		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	102	80	120			
Toluene	1.0	0.050	1.000	0	103	80	120			
Ethylbenzene	1.0	0.050	1.000	0	103	80	120			
Xylenes, Total	3.0	0.10	3.000	0	99.9	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		110	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

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HALL ENVIRONMENTAL ANALYSIS LABORATORY	Hall Environme TEL: 505-345- Website: ww	ental Analysis Labor 4901 Hawkin Albuquerque, NM 8 3975 FAX: 505-345- w.hallenvironmental	atory ns NE 17109 San 4107 L.com	nple Log-In Che	eck List
Client Name: SMA-CARLSBA	D Work Order Num	nber: 1906925		RcptNo: 1	
Received By: Jevon Campis Completed By: Leah Baca Reviewed By: ENH	6/18/2019 9:15:00 6/18/2019 11:26:4 6/18/10	АМ 7 АМ	Jun Campisi Laab SBace		
Chain of Custody 1. Is Chain of Custody complete? 2. How was the sample delivered	?	Yes ✔ <u>Client</u>	No 🗌	Not Present 🗌	
3. Was an attempt made to cool the	he samples?	Yes 🖌	No 🗌		
 Were all samples received at a Sample(s) in proper container(s) 	temperature of >0° C to 6.0°C	Yes 🗹 Yes 🗹	No 🗌	NA 🗌	
6. Sufficient sample volume for ind7. Are samples (except VOA and C8. Was preservative added to bottl	icated test(s)? DNG) properly preserved? es?	Yes ✔ Yes ✔ Yes □	No 🗌 No 🗍 No 🔽	NA 🗌	
 VOA vials have zero headspace Were any sample containers real 	? ceived broken?	Yes 🗌 Yes 🔲	No 🗌 No 🗹 🛛	No VOA Vials 🗹	
 Does paperwork match bottle lal (Note discrepancies on chain of 12. Are matrices correctly identified 13. Is it clear what analyses were re 14. Were all holding times able to be 	custody) on Chain of Custody? quested? a met?	Yes ✔ Yes ✔ Yes ✔	No 🗌 No 🗍 No 🗍	# of preserved bottles checked for pH: (<2 or >12 Adjusted?	unless noted)
(If no, notify customer for author Special Handling (if applicat	ization.)	Tes 💌			61.7
15. Was client notified of all discrep	ancies with this order?	Yes	No 🗌	NA 🗹	
Person Notified: By Whom: Regarding: Client Instructions:	Date Via:	eMail P	hone 🗌 Fax	In Person	
16. Additional remarks:					
17. <u>Cooler Information</u> Cooler No Temp °C Cooler 1 0.0 Good	ndition Seal Intact Seal No J Yes	Seal Date	Signed By		

	Shain-	-of-Cu	ustody Record	Turn-Around Ti	me:					-					
Client:	SM	U H	Jortstand	□ Standard	M Rush	Sour							A B		AL
)			Project Name:		C1 10 1				ed ww	lenviro	, menu	tal com		
Mailing	g Address			NHUD! 2	Jurg	1+ +04	-	4901 H	awkin	s NE	Albuc	nerau	e. NM	87109	
				Project #:				Tel. 50	5-345	-3975	Fax	< 505-	345-4	107	
Phone	#:									1	nalysi	s Req	uest		
email c	or Fax#;			Project Manage	Ľ		()	(0			[†] O ⁴		(ìn		
QA/QC	Package: ndard		Level 4 (Full Validation)	H. Pat	terse	C	208) s'	PCB's		SIMIS	PO₄, S		əsdA\tr		
	litation:	□ Az Co	ompliance	Sampler:	A /H	A C	amt amt	8082	(1.4(1/78 1	ʻ ^z ON	(৮	reser		
	(Type)			# of Coolers:	2		BE \	səpi)9 p	tals	^{'8} Ol	'ΟΛ	յ) ա		
				Cooler Temp(ind	uding CF): 03°	C-0.3 CF= 0.0°C	ITM) otrice	oqiə	N 83	r, N	-imə	nofilo		
Date	Time	Matrix	Sample Name	Container Pr Type and # Ty	reservative	HEAL NO.	BTEX)	8081 Pe	EDB (M	RCRA 8	8260 (M	S) 0728	DO letoT		
1.4.6	HOTE	Soil	17	Un7		-00-	X	-/)×				
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	1248		L J			-007	X	_			X				
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-)	1350	\rightarrow	C13)	2.1	-012	×				X				
Date:	Time:	Relinquish	ied by: anthe Watson	Received by:	iiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiiii	Date Time	Remai MO	ks: fof	3	C	e.	8	4	2	
Pate:	Time:	Relinquish	red poy:	Received by: 1	Via: Course-	l Date Time) -					1			
6/12/19	1910	A	1 Al	j t		51:6 61-81-9								-	
	If necessary,	samples sub-	bmitted to Hall Environmental may be sub	contracted to other accre	dited laboratories	 This serves as notice of this 	possibilit	 Any su 	b-contra	cted data	will be cle	arly nota	ted on the	analytical report.	

Chain-of-Custody Record	Turn-Around Time	1	VIII V			100	5				è					
Client: SMA Carlsberd	□ Standard	A. Rush	Smo					AL L	YS'	Z SI	Z Y	BOI	RAT RAT	A O		
)	Project Name:	1		5				led.w	lenvii	onme	ental	com)	a d	
Mailing Address:	1+4012	Jan	# 2+o+0	+	4901	Haw	kins	ч Ш N	Albu	duer	aue.	NM 87	601			
	Project #:				Tel.	505-3	345-3	975	Ű	ax 50	5-34	5-4107				
Phone #:			144 miles					A	nalys	sis R	ənbə	st				C La Call
email or Fax#:	Project Manager:			(1	(0		5		[⊅] O [⊄]	-	(40	()				-
QA/QC Package:	H. Pat	erter		208) e'	AM \ O	5904	SMISC	1	PO₄, S		0340/40					
Accreditation:	Sampler: しと On Ice: ロイ	es	ło	AMT \	8010	(1.40)	or 827(\$	' ^z ON '		(A)	10001			21	
EDD (Type)	# of Coolers: [- Ho	38.	ЯÐ)	g po	018	slate	10 ³	(ο _Λ -	<u> </u>				
	Cooler Temp(includir	ng CF): Ø .3℃ -	0.3 = 0.0 2	ΤM	19D	olist	83 V	∋M 8	r, 1	(AO	ime		P			
Dato Timo Matrix Samula Nama	Container Pres	servative	HEAL No.	(XEX)	08:Hd.	M) 80	d sHA	8 AADS	8 '£'i	V) 055	S) 012					
6-4-19/1435 Soil 213	4 or 7		-013 -013	X			╡	Ч	X	8			-			
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5 11546) LUS			- <u>-</u>	\checkmark	X		-		×	-						1
J 1026 V LIL	->		-010	×	X				X							
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Date: Time: Relinquished by: Lo Watton	Received by 1 yra	_ \$ 	Date Time	Remi	arks:	- F	$\sum_{i=1}^{n}$	\sim			X	2 of	2		-	1
Date: Time: Refinquighed by:	Received by: Via	Currier	Date Time $(8/i9 9:15 -$)	5)					
If necessary, samples submitted to Hall Environmental may be sub	ocontracted to other accredite	ed laboratories. Thi	is serves as notice of this	possibi	lity. Any	/ sub-co	ntracte	d data v	vill be c	learly n	otated	on the ana	lytical rep	oort.		٦



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

July 24, 2019

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

OrderNo.: 1907750

RE: Nighthawk

Dear Heather Patterson:

Hall Environmental Analysis Laboratory received 14 sample(s) on 7/16/2019 for the analyses presented in the following report.

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Hall Environmental Analysis Laboratory, Inc.

Date Reported: 7/24/2019

CLIENT: Souder, Miller & Associates Project: Nighthawk		Cli (ient Sample II Collection Date	D: CS e: 7/1	SW1 12/2019 8:58:00 AM	
Lab ID: 1907750-001	Matrix: SOIL		Received Date	e: 7/1	6/2019 9:15:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analyst:	MRA
Chloride	120	60	mg/Kg	20	7/19/2019 3:12:01 PM	46281
EPA METHOD 8015M/D: DIESEL RANGE	E ORGANICS				Analyst:	BRM
Diesel Range Organics (DRO)	39	9.1	mg/Kg	1	7/22/2019 9:17:51 PM	46282
Motor Oil Range Organics (MRO)	170	46	mg/Kg	1	7/22/2019 9:17:51 PM	46282
Surr: DNOP	95.9	70-130	%Rec	1	7/22/2019 9:17:51 PM	46282
EPA METHOD 8021B: VOLATILES					Analyst:	NSB
Benzene	ND	0.024	mg/Kg	1	7/19/2019 9:35:12 AM	46247
Toluene	ND	0.049	mg/Kg	1	7/19/2019 9:35:12 AM	46247
Ethylbenzene	ND	0.049	mg/Kg	1	7/19/2019 9:35:12 AM	46247
Xylenes, Total	ND	0.097	mg/Kg	1	7/19/2019 9:35:12 AM	46247
Surr: 4-Bromofluorobenzene	91.5	80-120	%Rec	1	7/19/2019 9:35:12 AM	46247

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

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Hall Environmental Analysis Laboratory, Inc.

Lab Order 1907/50

Date Reported: 7/24/2019

CLIENT:	Souder, Miller & Associates	es Client Sample ID: CSW2						
Project:	Nighthawk		(Collection Dat	e: 7/1	2/2019 2:58:00 PM		
Lab ID:	1907750-002	Matrix: SOIL		Received Dat	e: 7/1	6/2019 9:15:00 AM		
Analyses		Result	RL	Qual Units	DF	Date Analyzed	Batch	
EPA MET	HOD 300.0: ANIONS					Analyst:	MRA	
Chloride		170	60	mg/Kg	20	7/19/2019 3:24:25 PM	46281	
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS				Analyst	BRM	
Diesel Ra	ange Organics (DRO)	110	9.2	mg/Kg	1	7/23/2019 2:24:20 PM	46237	
Motor Oil	Range Organics (MRO)	52	46	mg/Kg	1	7/23/2019 2:24:20 PM	46237	
Surr: D	NOP	89.9	70-130	%Rec	1	7/23/2019 2:24:20 PM	46237	
EPA MET	HOD 8021B: VOLATILES					Analyst	NSB	
Benzene		ND	0.024	mg/Kg	1	7/19/2019 9:57:50 AM	46247	
Toluene		ND	0.048	mg/Kg	1	7/19/2019 9:57:50 AM	46247	
Ethylbenz	zene	ND	0.048	mg/Kg	1	7/19/2019 9:57:50 AM	46247	
Xylenes,	Total	ND	0.096	mg/Kg	1	7/19/2019 9:57:50 AM	46247	
Surr: 4	-Bromofluorobenzene	84.2	80-120	%Rec	1	7/19/2019 9:57:50 AM	46247	

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

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Lab Older 1907750

Date Reported:	7/24/2019
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CLIENT: Project: Lab ID:	Souder, Miller & Associates Nighthawk 1907750-003	Matrix: SOIL	CI (ient Sa Collect Recei	ample II ion Date ved Date	D: CS e: 7/1 e: 7/1	3W3 2/2019 2:32:00 PM 6/2019 9:15:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS						Analyst:	MRA
Chloride		78	60		mg/Kg	20	7/19/2019 4:26:27 PM	46281
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	BRM
Diesel Ra	ange Organics (DRO)	ND	9.8		mg/Kg	1	7/18/2019 6:18:56 PM	46237
Motor Oil	Range Organics (MRO)	ND	49		mg/Kg	1	7/18/2019 6:18:56 PM	46237
Surr: D	DNOP	63.2	70-130	S	%Rec	1	7/18/2019 6:18:56 PM	46237
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB
Benzene		ND	0.025		mg/Kg	1	7/19/2019 10:20:30 AM	46247
Toluene		ND	0.050		mg/Kg	1	7/19/2019 10:20:30 AM	46247
Ethylbenz	zene	ND	0.050		mg/Kg	1	7/19/2019 10:20:30 AM	46247
Xylenes,	Total	ND	0.10		mg/Kg	1	7/19/2019 10:20:30 AM	46247
Surr: 4	-Bromofluorobenzene	89.7	80-120		%Rec	1	7/19/2019 10:20:30 AM	46247

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

- 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

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S % Recovery outside of range due to dilution or matrix

Analytical Report

Hall Environmental Analysis Laboratory, Inc.

Lab Order **1907750** Date Reported: **7/24/2019**

CLIENT: Project:	I : Souder, Miller & Associates Client Sample I Nighthawk Collection Da						SW4 2/2019 2:35:00 PM	
Lab ID:	1907750-004	Matrix: SOIL		Receiv	ved Dat	e: 7/1	6/2019 9:15:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS						Analyst:	MRA
Chloride		400	60		mg/Kg	20	7/19/2019 4:38:52 PM	46281
EPA MET	HOD 8015M/D: DIESEL RANGE	ORGANICS					Analyst:	BRM
Diesel Ra	ange Organics (DRO)	ND	9.4		mg/Kg	1	7/18/2019 6:41:17 PM	46237
Motor Oil	Range Organics (MRO)	ND	47		mg/Kg	1	7/18/2019 6:41:17 PM	46237
Surr: D	DNOP	30.9	70-130	S	%Rec	1	7/18/2019 6:41:17 PM	46237
EPA MET	HOD 8021B: VOLATILES						Analyst:	NSB
Benzene		ND	0.025		mg/Kg	1	7/19/2019 10:43:11 AM	46247
Toluene		ND	0.049		mg/Kg	1	7/19/2019 10:43:11 AM	46247
Ethylben	zene	ND	0.049		mg/Kg	1	7/19/2019 10:43:11 AM	46247
Xylenes,	Total	ND	0.098		mg/Kg	1	7/19/2019 10:43:11 AM	46247
Surr: 4	I-Bromofluorobenzene	86.0	80-120		%Rec	1	7/19/2019 10:43:11 AM	46247

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

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Hall Environmental Analysi	is Laboratory, Inc	•			Date Reported: 7/24/20	019
CLIENT: Souder, Miller & Associates		Cli	ent Sample II	D: CS	54	
Project: Nighthawk		C	Collection Dat	e: 7/1	12/2019 9:26:00 AM	
Lab ID: 1907750-005	Matrix: SOIL]	Received Dat	e: 7/1	16/2019 9:15:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS					Analys	st: MRA
Chloride	540	60	mg/Kg	20	7/19/2019 4:51:16 PM	46281

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

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Analytical Report Lab Order 1907750

Date Reported: 7/24/2019

1 7/18/2019 7:03:31 PM 46237

7/18/2019 7:03:31 PM 46237

CLIENT:	Souder, Miller & Associates		Cli	ient Sample II	D: CS	5	
Project:	Nighthawk		(Collection Dat	e: 7/1	2/2019 10:58:00 AM	
Lab ID:	1907750-006	Matrix: SOIL		Received Dat	e: 7/1	6/2019 9:15:00 AM	
Analyses	5	Result	RL	Qual Units	DF	Date Analyzed	Batch
ΕΡΑ ΜΕΤ	THOD 300.0: ANIONS					Analyst	MRA
Chloride		ND	60	mg/Kg	20	7/19/2019 5:03:41 PM	46281
EPA MET	THOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	BRM
Diesel R	ange Organics (DRO)	ND	9.9	mg/Kg	1	7/18/2019 7:03:31 PM	46237

ND

54.3

50

S

70-130

mg/Kg

%Rec

1

Hall Environmental Analysis Laboratory, Inc.

Motor Oil Range Organics (MRO)

Surr: DNOP

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

Qualifiers: * Valu

- * 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

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Date Reported: 7/24/2019

CLIENT:	Souder, Miller & Associates		Cl	ient S	ample II	D: CS	6	
Project:	Nighthawk		(Collec	tion Dat	e: 7/1	2/2019 1:37:00 PM	
Lab ID:	1907750-007	Matrix: SOIL		Recei	ived Dat	e: 7/1	6/2019 9:15:00 AM	
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA MET	HOD 300.0: ANIONS						Analyst	MRA
Chloride		270	60		mg/Kg	20	7/19/2019 5:16:05 PM	46281
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS					Analyst	BRM
Diesel R	ange Organics (DRO)	ND	9.7		mg/Kg	1	7/18/2019 7:25:58 PM	46237
Motor Oi	I Range Organics (MRO)	ND	48		mg/Kg	1	7/18/2019 7:25:58 PM	46237
Surr: [ONOP	69.8	70-130	S	%Rec	1	7/18/2019 7:25:58 PM	46237

Hall Environmental Analysis Laboratory, Inc.

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

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Date Reported: 7/24/2019

7/18/2019 4:05:07 PM 46237

CLIENT:	Souder, Miller & Associates		Client	Sample II	D: CS	7	
Project:	Nighthawk		Coll	ection Dat	e: 7/1	2/2019 11:04:00 AM	
Lab ID:	1907750-008	Matrix: SOIL	Ree	ceived Dat	e: 7/1	6/2019 9:15:00 AM	
Analyses		Result	RL Qu	al Units	DF	Date Analyzed	Batch
EPA MET	THOD 300.0: ANIONS					Analyst	MRA
Chloride		240	60	mg/Kg	20	7/19/2019 5:28:30 PM	46281
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	BRM
Diesel Ra	ange Organics (DRO)	ND	9.5	mg/Kg	1	7/18/2019 4:05:07 PM	46237
Motor Oi	l Range Organics (MRO)	ND	47	mg/Kg	1	7/18/2019 4:05:07 PM	46237

70-130

%Rec

1

96.5

Hall Environmental Analysis Laboratory, Inc.

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

Qualifiers: * Value exceeds Maximum Contaminant Level.

Surr: DNOP

- 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

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Hall Environmental Analysis	s Laboratory, Inc	•			Lab Order 1907750 Date Reported: 7/24/20	'750 7/24/2019	
CLIENT: Souder, Miller & Associates		Cli	ent Sample II	D: CS	<u>59</u>		
Project: Nighthawk	C	Collection Dat	e: 7/1	2/2019 1:49:00 PM			
Lab ID: 1907750-009	Matrix: SOIL		Received Dat	e: 7/1	6/2019 9:15:00 AM		
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch	
EPA METHOD 300.0: ANIONS					Analys	t: MRA	
Chloride	440	60	mg/Kg	20	7/19/2019 5:40:54 PM	46281	

Analytical Report

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

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Hall Environmental Analysis Labor	atory, Inc.
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Date Reported: 7/24/2019

CLIENT:	Souder, Miller & Associates	Client Sample ID: CS10								
Project:	Nighthawk	Collection Date: 7/12/2019 2:05:00 PM								
Lab ID:	1907750-010	Matrix: SOIL	R	Received Date	e: 7/1	16/2019 9:15:00 AM				
Analyses		Result	RL (Qual Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	BRM			
Diesel Ra	ange Organics (DRO)	ND	9.7	mg/Kg	1	7/18/2019 4:27:27 PM	46237			
Motor Oil	I Range Organics (MRO)	ND	49	mg/Kg	1	7/18/2019 4:27:27 PM	46237			
Surr: D	DNOP	77.1	70-130	%Rec	1	7/18/2019 4:27:27 PM	46237			

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

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Date Reported: 7/24/2019

CLIENT:	Souder, Miller & Associates		C	lient S	ample II	D: CS	512		
Project:	Nighthawk	Collection Date: 7/12/2019 2:08:00 PM							
Lab ID:	1907750-011	Matrix: SOIL Received Date: 7/16/2019 9:15:00 AM							
Analyses		Result	RL	Qual	Units	DF	Date Analyzed	Batch	
EPA MET	HOD 300.0: ANIONS						Analyst	MRA	
Chloride		110	60		mg/Kg	20	7/19/2019 5:53:19 PM	46281	
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS					Analyst	BRM	
Diesel Ra	ange Organics (DRO)	ND	9.9		mg/Kg	1	7/18/2019 4:49:36 PM	46237	
Motor Oil	Range Organics (MRO)	ND	49		mg/Kg	1	7/18/2019 4:49:36 PM	46237	
Surr: D	DNOP	69.8	70-130	S	%Rec	1	7/18/2019 4:49:36 PM	46237	

Hall Environmental Analysis Laboratory, Inc.

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

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Date Reported: 7/24/2019

CLIENT: Sou	der, Miller & Associates		Clier	nt Sample II	D: CS	513			
Project: Nigl	hthawk	Collection Date: 7/12/2019 10:28:00 AM							
Lab ID: 190	7750-012	Matrix: SOIL	R	eceived Date	e: 7/1	6/2019 9:15:00 AM			
Analyses		Result	RL Q	ual Units	DF	Date Analyzed	Batch		
EPA METHOD	300.0: ANIONS					Analyst	MRA		
Chloride		240	60	mg/Kg	20	7/19/2019 6:30:31 PM	46281		
EPA METHOD	8015M/D: DIESEL RANGE	ORGANICS				Analyst	BRM		
Diesel Range	Organics (DRO)	ND	9.8	mg/Kg	1	7/18/2019 5:12:06 PM	46237		
Motor Oil Rang	ge Organics (MRO)	ND	49	mg/Kg	1	7/18/2019 5:12:06 PM	46237		
Surr: DNOP)	118	70-130	%Rec	1	7/18/2019 5:12:06 PM	46237		

Hall Environmental Analysis Laboratory, Inc.

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 MatrixH 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

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Date Reported: 7/24/2019

CLIENT:	: Souder, Miller & Associates		Clien	t Sample II	D: CS	514			
Project:	Nighthawk Collection Date: 7/12/2019 11:34:00 AM								
Lab ID:	1907750-013	Matrix: SOIL	Re	ceived Dat	e: 7/1	.6/2019 9:15:00 AM			
Analyses	5	Result	RL Q	ual Units	DF	Date Analyzed	Batch		
EPA ME	THOD 300.0: ANIONS					Analyst	MRA		
Chloride		300	60	mg/Kg	20	7/19/2019 8:59:24 PM	46287		
EPA ME	THOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	BRM		
Diesel R	Range Organics (DRO)	ND	9.6	mg/Kg	1	7/18/2019 7:48:12 PM	46237		
Motor O	il Range Organics (MRO)	ND	48	mg/Kg	1	7/18/2019 7:48:12 PM	46237		
Surr:	DNOP	96.2	70-130	%Rec	1	7/18/2019 7:48:12 PM	46237		

Hall Environmental Analysis Laboratory, Inc.

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
- Н Holding times for preparation or analysis exceeded
- ND Not Detected at the Reporting Limit
- PQL Practical Quanitative Limit

В Analyte detected in the associated Method Blank

- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range

RL Reporting Limit

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S % Recovery outside of range due to dilution or matrix

Hall Environmenta	l Analysis	Laboratory, Inc.
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Date Reported: 7/24/2019

CLIENT:	Souder, Miller & Associates	Client Sample ID: CS15								
Project:	Nighthawk		:7/	12/2019 11:42:00 AM						
Lab ID:	1907750-014	Matrix: SOIL	R	Received Date	e: 7/	16/2019 9:15:00 AM				
Analyses		Result	RL (Qual Units	DF	Date Analyzed	Batch			
EPA MET	HOD 8015M/D: DIESEL RANG	E ORGANICS				Analyst	BRM			
Diesel Ra	ange Organics (DRO)	ND	10	mg/Kg	1	7/18/2019 8:10:27 PM	46237			
Motor Oi	I Range Organics (MRO)	ND	50	mg/Kg	1	7/18/2019 8:10:27 PM	46237			
Surr: E	ONOP	95.1	70-130	%Rec	1	7/18/2019 8:10:27 PM	46237			

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

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Client:	Souder, M	iller & Ass	ociate	s							
Project:	Nighthaw	ĸ									
Sample ID	· MB-46281	SampTyr	o mb		Tee	tCode: E	PA Method	300 0: Anion	•		
	BD0				De N. Alfan						
Client ID:	PBS	Batch I	D: 462	281	F	RunNo: 6	1532				
Prep Date:	7/19/2019	Analysis Dat	e: 7/	19/2019	S	SeqNo: 2	085653	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID	Sample ID: LCS-46281 SampType: Ics TestCode: EPA Method 300.0: Anions										
Client ID:	LCSS	Batch ID: 46281 RunNo: 61532				1532					
Prep Date:	7/19/2019	Analysis Dat	e: 7/	19/2019	S	SeqNo: 2	085654	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	93.5	90	110			
Sample ID	: MB-46287	SampTyp	e: mb	olk	Tes	tCode: E	PA Method	300.0: Anion	s		
Client ID:	PBS	Batch I	D: 462	287	F	RunNo: 6	1532				
Prep Date:	7/19/2019	Analysis Dat	e: 7/	19/2019	S	SeqNo: 2	085683	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		ND	1.5								
Sample ID	LCS-46287	SampTyp	e: Ics	;	Tes	tCode: E	PA Method	300.0: Anion	s		
Client ID:	LCSS	Batch I	D: 462	287	F	RunNo: 6	1532				
Prep Date:	7/19/2019	Analysis Dat	e: 7/	19/2019	S	SeqNo: 2	085684	Units: mg/K	g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride		14	1.5	15.00	0	93.4	90	110			

Qualifiers:

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

- В Analyte detected in the associated Method Blank
- Е Value above quantitation range
- J Analyte detected below quantitation limits
- Р Sample pH Not In Range
- RL Reporting Limit

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Client: Project:	Souder, Miller & A Nighthawk	ssociates								
Sample ID: MB-46	237 Samp ⁻	Type: MBLK		TestC	Code: EPA	Method	8015M/D: Die:	sel Range	Organics	
Client ID: PBS	Batc	Batch ID: 46237			RunNo: 61479					
Prep Date: 7/17/2	2019 Analysis I	Date: 7/18/20	19	Se	eqNo: 208	4881	Units: mg/Kg	J		
Analyte	Result	PQL SPK	value SPK	Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO) ND	10								
Motor Oil Range Organi	cs (MRO) ND	50								
Surr: DNOP	12		10.00		115	70	130			
Sample ID: LCS-4	6237 Samp	Type: LCS	TestCode: EPA Method 8015M/D: Diesel Range Organics							
Client ID: LCSS	Batc	h ID: 46237		Ru	unNo: 615	11				
Prep Date: 7/17/2	2019 Analysis I	Date: 7/19/20	19	Se	eqNo: 208	5058	Units: mg/Kg	J		
Analyte	Result	PQL SPK	value SPK	Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO) 63	10	50.00	0	127	63.9	124			S
Surr: DNOP	5.0		5.000		100	70	130			
Sample ID: LCS-4	6299 Samp	Type: LCS		TestC	Code: EPA	Method	8015M/D: Die	sel Range	Organics	
Client ID: LCSS	Batc	Batch ID: 46299			unNo: 615	51				
Prep Date: 7/22/2	2019 Analysis I	Date: 7/22/20	19	Se	eqNo: 208	6155	Units: %Rec			
Analyte	Result	PQL SPK	value SPK	Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.1		5.000		82.9	70	130			
Sample ID: MB-46	299 Samp ⁻	Type: MBLK		TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Bato	h ID: 46299		RunNo: 61551						
Prep Date: 7/22/2	2019 Analysis I	Date: 7/22/20	19	Se	eqNo: 208	6156	Units: %Rec			
Analyte	Result	PQL SPK	value SPK	Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	8.3		10.00		83.2	70	130			
Sample ID: LCS-4	6282 Samp	Type: LCS		TestC	Code: EPA	Method	8015M/D: Die:	sel Range	Organics	
Client ID: LCSS	Batc	h ID: 46282		Ru	unNo: 615	73		_	-	
Prep Date: 7/19/2	2019 Analysis I	Date: 7/23/20	19	Se	eqNo: 208	6850	Units: mg/Kg	J		
Analyte	Result	PQL SPK	value SPK	Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO) 48	10	50.00	0	96.3	63.9	124			
Surr: DNOP	4.0		5.000		80.6	70	130			
Sample ID: MB-46	282 Samp	Type: MBLK		TestC	Code: EPA	Method	8015M/D: Die	sel Range	Organics	
Client ID: PBS	Batc	h ID: 46282		Ru	unNo: 615	73				
Prep Date: 7/19/2	2019 Analysis I	Date: 7/23/20	19	Se	eqNo: 208	6852	Units: mg/Kg	J		
Analyte	Result	PQL SPK	value SPK	Ref Val	%REC L	_owLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO) ND	10								

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

WO#: **1907750 24-Jul-19**

Souder, Nightha	Miller & A wk	ssociate	es							
82	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
	Batch	n ID: 46	282	F	RunNo: 6	1573				
019	Analysis D	Date: 7/	23/2019	S	SeqNo: 2	086852	Units: mg/K	(g		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
s (MRO)	ND	50								
	8.0		10.00		79.8	70	130			
324	SampT	ype: LC	S	Tes	tCode: El	PA Method	3 8015M/D: Diesel Range Organics			
	Batch	n ID: 46	324	F	RunNo: 6	1573				
019	Analysis D	Date: 7/	23/2019	S	SeqNo: 2	087301	Units: %Red	C		
	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
	4.1		5.000		82.0	70	130			
24	SampT	ype: ME	BLK	Tes	tCode: El	PA Method	8015M/D: Die	esel Range	e Organics	
	Batch	h ID: 46	324	F	RunNo: 6	1573				

Client ID: PBS	Batch ID: 46324	RunNo: 61573					
Prep Date: 7/23/2019	Analysis Date: 7/23/2019	SeqNo: 2087302	Units: %Rec				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual				
Surr: DNOP	8.0 10.00	80.2 70	130				
Sample ID: MB-46317	SampType: MBLK TestCode: EPA Method 8015M/D: Diesel Range Organics						
Client ID: PBS	Batch ID: 46317	RunNo: 61582					
Prep Date: 7/22/2019	Analysis Date: 7/23/2019	SeqNo: 2087462	Units: %Rec				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual				
Surr: DNOP	9.1 10.00	91.2 70	130				
Sample ID: LCS-46317	SampType: LCS	TestCode: EPA Method	8015M/D: Diesel Range Organics				
Client ID: LCSS	Batch ID: 46317	RunNo: 61582					
Prep Date: 7/22/2019	Analysis Date: 7/23/2019	SeqNo: 2087463	Units: %Rec				
Analyte	Result PQL SPK value	SPK Ref Val %REC LowLimit	HighLimit %RPD RPDLimit Qual				
Surr: DNOP	4.1 5.000	82.1 70	130				

Qualifiers:

Client:

Project:

Analyte

Analyte Surr: DNOP

Surr: DNOP

Sample ID: MB-46282 Client ID: PBS Prep Date: 7/19/2019

Motor Oil Range Organics (MRO)

Sample ID: LCS-46324 Client ID: LCSS Prep Date: 7/23/2019

Sample ID: MB-46324

- * 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#:	19	90	77	50	

Client: Project:	Souder, N Nighthaw	Iiller & A k	ssociate	es							
Sample ID:	MB-46247	SampT	ype: ME	BLK	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	PBS	Batcl	n ID: 46	247	F	unNo: 61	1535				
Prep Date:	7/18/2019	Analysis D	Date: 7/	19/2019	S	eqNo: 20	085802	Units: mg/K	a		
Analuta		Decult						Lliablimit			Qual
Analyte		Result	PQL	SPK value	SPK Rei Vai	%REC	LOWLIMIL	HighLimit	%RPD	RPDLIMI	Quai
Benzene		ND	0.025								
Toluene		ND	0.050								
Ethylbenzene		ND	0.050								
Xylenes, Total		ND	0.10								
Surr: 4-Brom	nofluorobenzene	0.90		1.000		90.1	80	120			
Sample ID:	LCS-46247	SampT	ype: LC	S	Tes	tCode: EF	PA Method	8021B: Volati	les		
Client ID:	LCSS	Batcl	n ID: 46	247	F	unNo: 61	1535				
Prep Date:	7/18/2019	Analysis D	Date: 7/	19/2019	S	eqNo: 20	085803	Units: mg/Kg	9		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene		0.91	0.025	1.000	0	91.1	80	120			
Toluene		0.96	0.050	1.000	0	96.0	80	120			
Ethylbenzene		0.93	0.050	1.000	0	93.3	80	120			
Xvlenes. Total		2.8	0.10	3.000	0	94.4	80	120			
Surr: 4-Brom	nofluorobenzene	0.97		1.000		97.3	80	120			
Sample ID:	RB	SampT	vpe: MF	SI K	Tes	tCode: F F	PA Method	8021B· Volati	les		
Client ID:	PBS	Batcl	h ID: B6	1546	F	unNo: 61	1546	002121 1014			
Prep Date:		Analysis D	Date: 7/	22/2019	S	SeqNo: 20	086510	Units: %Rec			
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	1.0		1.000		103	80	120			
Sample ID:	100NG BTEX LCS	SampT	vpe: LC	S	Tes	tCode: FF	PA Method	8021B: Volati	les		
Client ID	LCSS	Batcl	n ID: B6	1546	R	unNo: 61	1546				
Prep Date:	2000	Analysis D	Date: 7/	22/2019	S	SeqNo: 20	086511	Units: %Rec			
Analvte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Brom	nofluorobenzene	0.90		1.000		90.3	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

HALL ENVIRONMENT, ANALYSIS LABORATORY	Hall E AL TEL: We	Environmental Analy 49(Albuquero 505-345-3975 FAX: bsite: www.hallenvi	esis Laboratory 11 Hawkins NE pue, NM 87109 505-345-4107 ronmental.com	San	nple Log-In C	heck List
Client Name: SMA-CARI	SBAD Work O	rder Number: 190	7750		RcptNo:	1
Received By: Leah Bac	a 7/16/2019	9:15:00 AM	L	al Bae	۶.	
Completed By: Desiree D Reviewed By: ENH	ominguez 7/16/2019	12:15:05 PM	Ţ	P2		
Chain of Custody			_	_	_	
1. Is Chain of Custody comp	lete?	Yes		No 🗌	Not Present	
2. How was the sample deliv	ered?	<u>Cou</u>	rier			
Log In 3. Was an attempt made to c	cool the samples?	Yes		No 🗌	NA 🗌	
4. Were all samples received	at a temperature of >0° C to e	6.0°C Yes		No 🗌		
5. Sample(s) in proper contai	iner(s)?	Yes		No 🗌		
6. Sufficient sample volume f	or indicated test(s)?	Yes		No 🗍		
7, Are samples (except VOA)	and ONG) properly preserved?	> Yes		No 🗌		
8. Was preservative added to	bottles?	Yes		No 🔽	NA 🗌	·
9. VOA vials have zero heads	pace?	Yes		No 🗌	No VOA Viais 🔽	
10, Were any sample containe	ers received broken?	Yes		No 🗹		
11. Does paperwork match bot (Note discrepancies on cha	tle labels? ain of custody)	Yes		No 🗌	# of preserved bottles checked for pH: (<2 or	>12 unless noted)
12. Are matrices correctly iden	tified on Chain of Custody?	Yes		No 🗌	Adjusted?	
13. Is it clear what analyses we	ere requested?	Yes		No 🗌		
14. Were all holding times able (If no, notify customer for a	to be met? uthorization.)	Yes		No 🗌	Checked by: D	AD 7/16/19
Special Handling (if app	licable)					
15. Was client notified of all di	screpancies with this order?	Yes		No 🗌	NA 🗹	
Person Notified:		Date:				
By Whom:		Via: 🗌 eM	ail 🗌 Phone	Fax	In Person	
Regarding:						
Client Instructions:				······		
16. Additional remarks:						
17. <u>Cooler Information</u> Cooler No Temp °C 1 4.7 2 5.5	Condition Seal Intact S Good Not Present S Good Not Present S	seal No Seal D	ate Sign	ied By		

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0	Shain-	of-Cl	ustody Record	Turn-Around	Time:				•								-	
Client:	NS N	A-Ca	Asbad	□ Standard		5 day					ہے ہے آب آ		Ľ⊥		1EN RAT	<u>a</u> S	_ ≿	
				Project Name						- MMM	haller	viron	nent	al.com		5		
Mailing) Address			Might	Mank			4901	Hawki	ns NE	۲ ۱	nbnq	erque	e, NM 87′	109			
				Project #:				Tel. 5	05-34	5-397	<u>5</u>	Fax	505-	345-4107				
Phone	#:										Ana	lysis	Req	lest				
email c	<u>yr Fax#: (</u>	hnn. cuci	cela O Suidormiller. con	Project Mana	iger:		(1)	6			۴OS			(]ue				
QA/QC	Package: ìdard		□ Level 4 (Full Validation)	LUMM A	Acost		z08) s,			SMISC	PO4. 3			əsdA\tr				
Accred	litation: AC	□ Az C(□ Othe	ompliance	Sampler: On Ice:	L 4A T Yes		amt /	2808/s	(1.40)728 rc	'°ON		(A	Preser				
	(Type)			# of Coolers?	2)		38	er ופצ	g po	01	SIB1:		0٨-) ա.				
				Cooler Temp	Vincluding CE): 4.6 +	04-27 2 CH-40	TM /	oueru oitee	уңау	oy 83	Br, N Br, N	(40/	iməS	iotilo:				
Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	1903750		9 1808	EDB (V	I SHA9) 0928	s) 07 <u>2</u> 8	C listoT	···		<u> </u>	
7/12/19	\$58	Sail	CSWI	402		-001	X X				\succ							
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	926		CSY			- 005					\times							
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	1405		CS 10			- 010	/	$\overline{\mathbf{x}}$										
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	1028		CS13			- 01 2	~				\times	_						— -
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				Para Alla	Vice D and C	7//5/19 N23				0								
		Kellinguis		received	via. Com		X)	4							
11/1/1	If necessary	samples sui	Ibmitted to Hall Environmental may be subo	ontracted to other a	Incredited laboratorie	s. This serves as notice of this	() Iliqissoo	tv. Any	sub-cont	racted c	ata will .	be clear	v notat	ed on the and	alytical rep	ort.		-1

U	hain	-of-Ci	ustody Reco	פ	Turn-Around	Time:			1. <i>1</i>	-	Į		Ž				Ē		
Client:	SM	4 - C	artsbad		□ Standard	Rush	5 day				ŻŻ	Ę	Į.	l s	ABO	R	2	۲. ۲	
					Project Name	di	-		1		www	halle	nviror	meni	al.com				
Mailing	Address	s:			Night	nauk		-	4901	Hawk	ins N	, ш	Albuqı	nerqu	e, NM 87	109			
					Project #:				Tel. 5	05-37	15-39	75	Fax	505	345-4107	2			
Phone ;	# :											An	alysis	Req	uest				
email o	r Fax#:\	<u>. 1100. 62</u>	color Osoudermiller.	tow	Project Mans	iger:		۱)	5				to		(<u>)</u> u				
QA/QC ∣ □ Stan	Package: dard	•	🗆 Level 4 (Full Valic	dation)	A MINA	1. Acosta		208) e'i	PCB's PCB's		SMISO	<u> </u>			əsdA\tr		<u> </u>		
Accredi	itation: AC	□ Az Cc □ Othe	ompliance sr	<u> </u>	Sampler:	LAA D Yes	□ No		2808/s	(1.40	728 <u>1</u> 0		¹⁷ 0N ¹	(¥	iəsərq)				
	(Type)				# of Coolers:			BE	ebi: שווייייייייייייייייייייייייייייייייייי	g po	01	stals		-۸C) այ				
					Cooler Temp	(Including CF):			oderos:i oitestic	s (Methc	58 yd sl	9M 8 ΑΣ		imə2) (iotilo) le				
Date	Time	Matrix	Sample Name		Jonualmer	Type	1907750	BTB	808 808	EDE	-IAG	RCF RCF	928 1978	228	stoT				
7/12/14	1134	ا جمن ا	CSIH		$\mathcal{H}_{o,\mathcal{P}}$		E10-		×										
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Date:	Time:	Relinquist	hed by:		Received 04:	Via:	Date Time	Rema	rks:		3	J.	7						
Date 7	Time:	Relinquist	Bed py:		Received by:	Via:Couru,	Date Time		u			5	~						<u>_</u>
	If necessary	V. samples sul	rbmitted to Hall Environmental n	may be subco	ntracted to other a	ccredited laboratorio	es. This serves as notice of this	possibili	by. Any	up-con	tracted	data wil	be clea	rly nota	ted on the an	alytical re	sport.		1



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

August 01, 2019

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

RE: Nighthawk

OrderNo.: 1907D01

Dear Lynn A. Acosta:

Hall Environmental Analysis Laboratory received 2 sample(s) on 7/25/2019 for the analyses presented in the following report.

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

Andy Freeman Laboratory Manager 4901 Hawkins NE Albuquerque, NM 87109

Analytical Report
Lab Order 1907D01

Date Reported: 8/1/2019

CLIENT: Souder, Miller & A	Associates	Cli	ent Sample II): C\$	SW 1	
Project: Nighthawk		C	ollection Dat	e: 7/2	24/2019 6:15:00 AM	
Lab ID: 1907D01-001	Matrix: SOIL		Received Dat	e: 7/2	25/2019 8:52:00 AM	
Analyses	Result	RL	Qual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIE	ESEL RANGE ORGANICS				Analys	t: TOM
Diesel Range Organics (DRO)	10	9.8	mg/Kg	1	7/30/2019 11:13:13 AM	1 46409
Motor Oil Range Organics (MR	O) ND	49	mg/Kg	1	7/30/2019 11:13:13 AM	1 46409
Surr: DNOP	84.8	70-130	%Rec	1	7/30/2019 11:13:13 AM	1 46409

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

Page 1 of 3

Analytical Report
Lab Order 1907D01

Date Reported: 8/1/2019

CLIENT: Souder, Miller & Associates Project: Nighthawk		Clien Coll	t Sample II lection Date): CS e: 7/2	SW 2 24/2019 6:18:00 AM	
Lab ID: 1907D01-002	Matrix: SOIL	Re	ceived Date	e:7/2	25/2019 8:52:00 AM	
Analyses	Result	RL Qu	ual Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANG	GE ORGANICS				Analyst	том
Diesel Range Organics (DRO)	ND	9.8	mg/Kg	1	7/29/2019 9:30:23 PM	46409
Motor Oil Range Organics (MRO)	ND	49	mg/Kg	1	7/29/2019 9:30:23 PM	46409
Surr: DNOP	101	70-130	%Rec	1	7/29/2019 9:30:23 PM	46409

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

Page 2 of 3

WO#:	1907D01
	01-Aug-19

Client: Project:	Souder, Mil Nighthawk	ler & A	ssociate	es							
Sample ID: LCS-4	6409	SampT	vpe: LC	s	Tes	tCode: Ef	PA Method	8015M/D: Di	esel Rang	e Organics	
Client ID: LCSS		Batch	n ID: 46	409	F	RunNo: 6'	1705		j	· g	
Prep Date: 7/26/2	2019 A	nalysis D	ate: 7/	29/2019	5	SeqNo: 20	091847	Units: mg/k	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO)	54	10	50.00	0	109	63.9	124			
Surr: DNOP		5.2		5.000		103	70	130			
Sample ID: MB-46	409	SampT	ype: MI	BLK	Tes	tCode: EF	PA Method	8015M/D: Die	esel Rang	e Organics	
Client ID: PBS		Batch	n ID: 46	409	F	RunNo: 6	1705				
Prep Date: 7/26/2	2019 A	nalysis D	ate: 7/	29/2019	S	SeqNo: 20	091848	Units: mg/#	٤g		
Analyte		Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics	(DRO)	ND	10								
Motor Oil Range Organi	cs (MRO)	ND	50								
Surr: DNOP		9.2		10.00		92.1	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

Page 3 of 3

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:	1907D01		RcptNo: 1		
Received By: Desiree Dominguez 7/2	25/2019 8:52:00 AM		De			
Completed By: Desiree Dominguez 7/2 Reviewed By:	25/2019 11:07:19 AM 25/ <i>10</i> 1		TP2			
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 🗌			
Sufficient sample volume for indicated test(s)?		Yes 🗹	No 🗌			
7. Are samples (except VOA and ONG) properly pre	served?	Yes 🖌	No 🗌			
3. Was preservative added to bottles?		Yes 🗌	No 🖌	NA 🗌		
VOA vials have zero headspace?		Yes 🗌	No 🗌	No VOA Vials 🗹		
0. Were any sample containers received broken?		Yes 🗌	No 🔽	# of preserved	_	
1. Does paperwork match bottle labels? (Note discrepancies on chain of custody)		Yes 🗹	No 🗌	for pH: (<2 or >12	untess noted)	
2. Are matrices correctly identified on Chain of Custo	ody?	Yes 🔽	No 🗌	Adjusted?		
3. Is it clear what analyses were requested?		Yes 🗸	No 🗌			
 Were all holding times able to be met? (If no, notify customer for authorization.) 		Yes 🗹	No 🗌	Checked by: DAD	7/25/19	
pecial Handling (if applicable)						
15. Was client notified of all discrepancies with this o	order?	Yes	No 🗌	NA 🗹		
Person Notified:	Date:	ada a gana ar e e e e a gan a nay sata ar	and the second and the second			
By Whom:	Via:] eMail 🗌 F	hone 🗌 Fax	In Person		
Regarding:	ne en elle hanne en transmission de la segue castal car	n de schammer sonder aussetze das de de de sonde de sonde				
Client Instructions:						
6. Additional remarks:						
7. Cooler Information						
Cooler No Temp °C Condition Seal In	tact Seal No Se	eal Date	Signed By			
1 3.4 Good Not Pres	sent					

Hall ENVIRONMENTAL Hall ENVIRONMENTAL Analysis Request Hall ENVIRONMENTAL Analysis Request	TPH:8015D(GRO (DRO / MRO) 8081 Pesticides/8082 PCB's EDB (Method 504.1) PAHs by 8310 or 8270SIMS CI, F, Br, NO ₃ , NO ₂ , PO ₄ , SO ₄ 8260 (VOA) 8270 (Semi-VOA) Total Coliform (Present/Absent)		marks: Marities Internation Internatio Internation Internation Internation Int
Turn-Around Time:	Project Manager: LVMM A. Acosha Mosha 8021) Sampler: LVMM A. Acosha No 8021) Sampler: LVMM A. Acosha No 8021) B of Coolers: V 0,0 - 3,42 81EL Container Preservative 10 - 0,0 - 3,42 81EL	100- 201	Received by: Via: Date Time Rel Received by: Via: Date Time Received by: Via: Date Time
Client: SNA- Curlsbad	email or Fax#: QA/QC Package: Cardard Level 4 (Full Validation) Accreditation: Az Compliance NELAC Other	$ \frac{724119}{1} 615 501 (510 1) $	Date: Time: Relinquished by: Date: Time: Relinquished by: Date: Time: Relinquished by: 1 19 19 1 19 19 1 19 19 1 19 19 1 19 19 1 19 19 1 19 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10 1 10 10

Spill Calculation Tool



Standing Liquid Inputs:							
			Avg. Liquid		Total Volume	Water Volume	Oil Volume
	Length (ft.)	Width (ft.)	Depth (in.)	% Oil	(bbls)	(bbls)	(bbls)
Rectangle Area #1					0.00	0.00	0.00
Rectangle Area #2					0.00	0.00	0.00
Rectangle Area #3					0.00	0.00	0.00
Rectangle Area #4					0.00	0.00	0.00
Rectangle Area #5					0.00	0.00	0.00
Rectangle Area #6					0.00	0.00	0.00
Rectangle Area #7					0.00	0.00	0.00
Rectangle Area #8				Liquid Volumou	0.00	0.00	0.00
					0.00	0.00	0.00
Saturated Soil Inputs:		Soil Type:	Clay Loam				
p			Avg. Saturated		Total Volume	Water Volume	Oil Volume
	Length (ft.)	Width (ft.)	Depth (in.)	% Oil	(bbls)	(bbls)	(bbls)
Rectangle Area #1	20	20	2	100%	1.90	0.00	1.90
Rectangle Area #2		20	_	20070	0.00	0.00	0.00
Rectangle Area #3					0.00	0.00	0.00
Rectangle Area #4					0.00	0.00	0.00
Rectangle Area #5					0.00	0.00	0.00
Rectangle Area #6					0.00	0.00	0.00
Rectangle Area #7					0.00	0.00	0.00
Rectangle Area #8					0.00	0.00	0.00
			9	aturated Volume	1.90	0.00	1.90
					Total Volume	Water Volume	Oil Volume
Volume	Recovered and no	ot included in Stand	ling Liquid Inputs :	% Oil	Total Volume (bbls)	Water Volume (bbls)	Oil Volume (bbls)
<u>Volume</u>	Recovered and no	ot included in Stand	ling Liquid Inputs :	% Oil	Total Volume (bbls) 25.00	Water Volume (bbls)	Oil Volume (bbls) 25.00
Volume	Recovered and na	ot included in Stand	ling Liquid Inputs <u>:</u> 	% Oil	Total Volume (bbls) 25.00	Water Volume (bbls)	Oil Volume (bbls) 25.00
<u>Volume</u>	Recovered and na	nt included in Stand	ling Liquid Inputs <u>:</u>	% Oil	Total Volume (bbls) 25.00 Total Volume	Water Volume (bbls) Water Volume	Oil Volume (bbls) 25.00 Oil Volume
<u>Volume</u>	Recovered and na	ot included in Stand	ling Liquid Inputs :	% Oil	Total Volume (bbls) 25.00 Total Volume (bbls)	Water Volume (bbls) Water Volume (bbls)	Oil Volume (bbls) 25.00 Oil Volume (bbls)
<u>Volume</u>	Recovered and no	<u>ot included in Stand</u>	ling Liquid Inputs : 	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	<u>ot included in Stand</u>	ling Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	o <u>t included in Stand</u>	ling Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ling Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
<u>Volume</u>	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs :	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs :	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs :	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs : Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	Total Sp	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90
	Recovered and no	ot included in Stand	ing Liquid Inputs :	% Oil ill Volume (bbls):	Total Volume (bbls) 25.00 Total Volume (bbls) 26.90	Water Volume (bbls) Water Volume (bbls) 0.00	Oil Volume (bbls) 25.00 Oil Volume (bbls) 26.90