Venegas, Victoria, EMNRD

From: Melodie Sanjari <melodie.sanjari@soudermiller.com>
Sent: Thursday, February 7, 2019 11:44 AM
To: Hamlet, Robert, EMNRD; Venegas, Victoria, EMNRD
Cc: Austin Weyant; John Hurt
Subject: [EXT] Remediation Closure Report for the Janie Conner #221H 2RP-3739
Attachments: Janie Conner #221H Remediation Closure Report.pdf

Good Morning All,

Please find the attached Remediation Closure Report for the release associated with the Janie Conner #221H (2RP-3739).

If there are any questions or concerns please let me know.

Melodie Sanjari
Staff Scientist

Souder, Miller & Associates
Engineering ♦ Environmental ♦ Surveying
201 S Halagueno Street
Carlsbad, NM 88220
www.soudermiller.com
(574) 370-9782 (cell)
(505) 299-0942 Ext. 2204

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

February 7, 2019

#5E26816-BG4

NMOCD District 2
Mr. Robert Hamlet
811 S. 1st Street
Artesia, NM 88210

SUBJECT: Site Assessment/Characterization and Closure Sampling Plan for the Janie Conner #221H Release (2RP-3739), Eddy County, New Mexico

Dear Mr. Robert Hamlet:

On behalf of Matador Resources, 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 Janie Conner #221H site. The site is in Unit A, Section 14, Township 24S, Range 28E, Eddy County, New Mexico, on private 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	Janie Conner 13 24S 28E RB #221H	Company	Matador Resources
API Number	30-15-43756	Location	32.2238661 ° -104.050043 °
Incident Number	2RP-3739		
Estimated Date of Release	6/12/2016	Date Reported to NMOCD	6/12/2016
Land Owner	Private Land	Reported To	OCD
Source of Release	Equipment Failure		
Released Volume	15 bbls	Released Material	Oil Based Mud
Recovered Volume	15 bbls	Net Release	0 bbls
NMOCD Closure Criteria	<50 feet to groundwater		
SMA Response Dates	1/31/18, 9/4/18 & 9/18/18		

1.0 Background

On June 12, 2016, a release was discovered at the Janie Conner #221H site caused by equipment failure. Initial response activities were conducted by Matador's contractor and included source elimination by crimping the hose that failed, and site stabilization activities, which recovered the free fluids. Figures 1 and 2 illustrate the vicinity and site location and Figure 3 illustrates the release location. The initial and final C-141 forms are included in Appendix A.

2.0 Site Information and Closure Criteria

The Janie Conner #221H is located approximately 1.2 miles east of Malaga, New Mexico on privately-owned land at an elevation of approximately 2982 feet above mean sea level (amsl).

As summarized in Table 2 and illustrated in Figure 1, depth to groundwater in the area is estimated to be 35-40 feet below grade surface (bgs). There are 4 known water sources within ½-mile of the location, according to the New Mexico Office of the State Engineer (NMOSE) and USGS Groundwater water levels (https://nwis.waterdata.usgs.gov/nm/nwis/gwlevels?search_criteria=county_cd&submitted_form=introduction; accessed 10/16/2018). USGS and OSE well within the area were used to determine the depth to ground water of 35-40 feet bgs. These well ending in 25801(USGS) and C-0903 and C0464 (OSE). The nearest surface water is Pecos River located approximately 0.66 miles to the east.

This data indicates that it does lie within a sensitive area as described in 19.15.29.12.C(4) NMAC due to depth to groundwater in the area.

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 background levels for chloride from the submitted report to OCD on 11/1/18 titled "Site Assessment/Characterization and Closure Sampling Plan for the Janie Conner #221H Release (2RP-.3739), Eddy County, New Mexico".

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

3.0 Release Characterization Activities and Findings

On January 31, 2018, SMA personnel arrived on site in response to the release associated with the Janie Conner #221H. SMA performed site delineation activities by collecting surface soil samples around the release site and throughout the visibly stained area (L1-L4). These four samples were sent for laboratory analysis for benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D.

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

4.0 Soil Remediation Summary

On September 4, 2018, SMA returned on the site to further delineate the release and guide the excavation of contaminated material. A total of 16 sample locations (BH1-BH3, SW1-SW7 and BG1 & BG2) were investigated using excavated test pits, to depths up to 6 feet bgs. A minimum of two samples were collected at each sampling location aside from the sidewall sample locations (SW1-SW7). A total of 11 samples were collected for laboratory analysis for total chloride using EPA Method 300.0; and 3 samples

sent for 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. Table 3 itemizes the samples and field-screening results as well as identifying any variances from the typical specification of two samples per boring. Locations for all samples are depicted on Figure 3.

An area approximately 130 feet by 110 feet by 2 to 4 feet deep had been impacted. The walls and base were excavated until the closure criteria would be met using background data. The area around BH1 and BH2 was excavated to a depth of 2 feet bgs and BH3 was excavated to a depth of 4 feet bgs.

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

SMA met with NMOCD concerning the chloride remediation standards on September 12, 2018. It was requested that an additional background location be added outside of the pad to reiterate the natural chloride concentration of the soil in which the release took place. Background sample location BG6 was established on September 18, 2018 and was investigated to a depth of 6 feet bgs. Lab analysis confirmed that BG6 exhibited chloride levels as high as 3086 mg/kg (Table 3). Baseline samples were also collected on July 22, 2016 in the adjacent pasture (Janie Conner Production site 300 feet south of the release location: P1-P3). Sample Locations P1-P3 can be seen on Figure 3B. Lab analysis from the requested background sample (BG6) and baselines collected before construction or production in the adjacent field show levels upwards of 1800 mg/kg.

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 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 Austin Weyant at 575-689-8801 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

Lucas Middleton
Staff Scientist

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
Figure 3b: Baseline Sample Location Map for Janie Conner Production

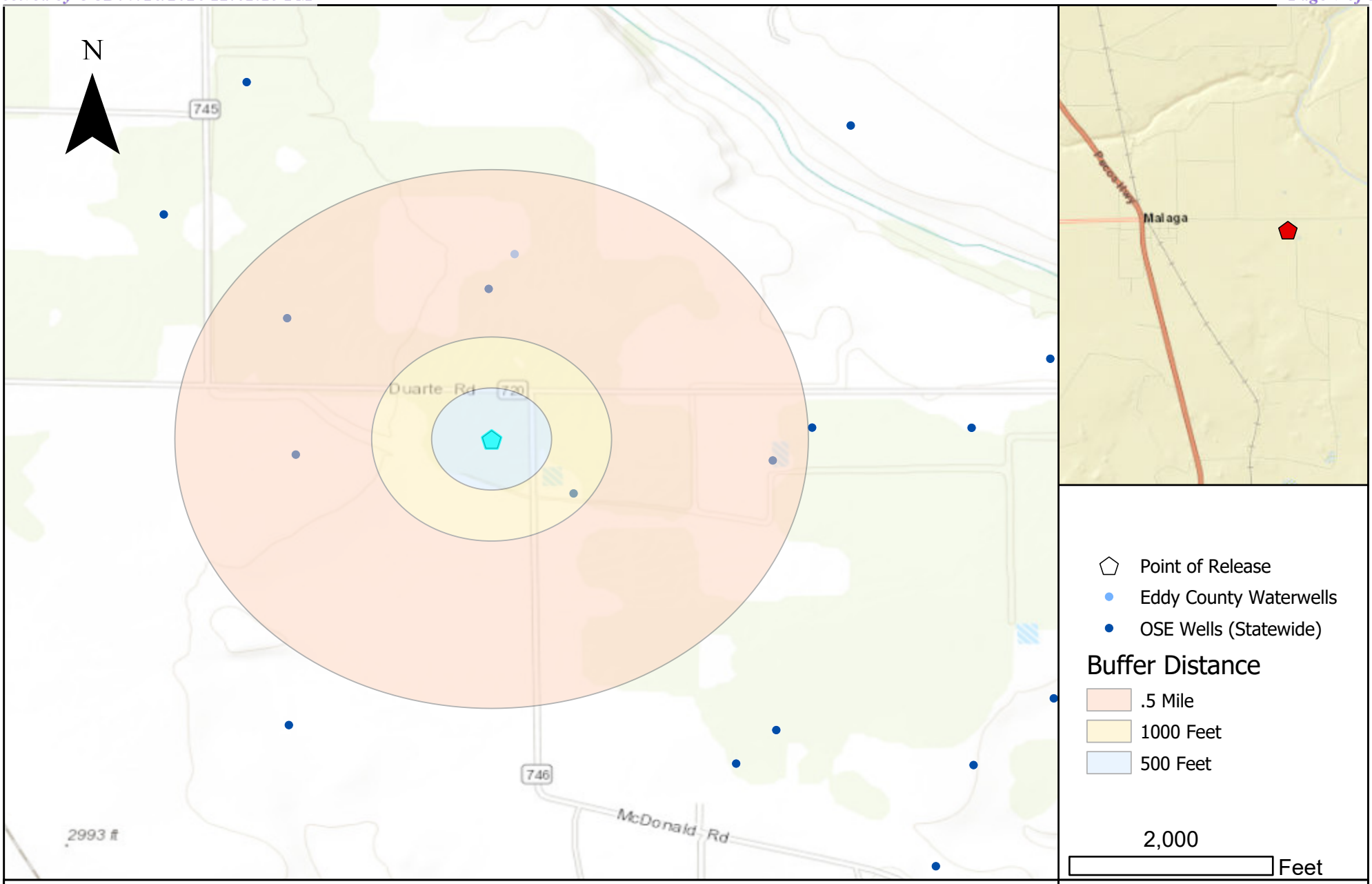
Tables:

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

Appendices:

Appendix A: Initial & Final C141
Appendix B: NMOSE Wells Report
Appendix C: Laboratory Analytical Reports

FIGURES



Regional Vicinity & Wellhead Protection Map
Janie Conner 13 24S 28E RB #221H
Eddy County, New Mexico

Figure 1

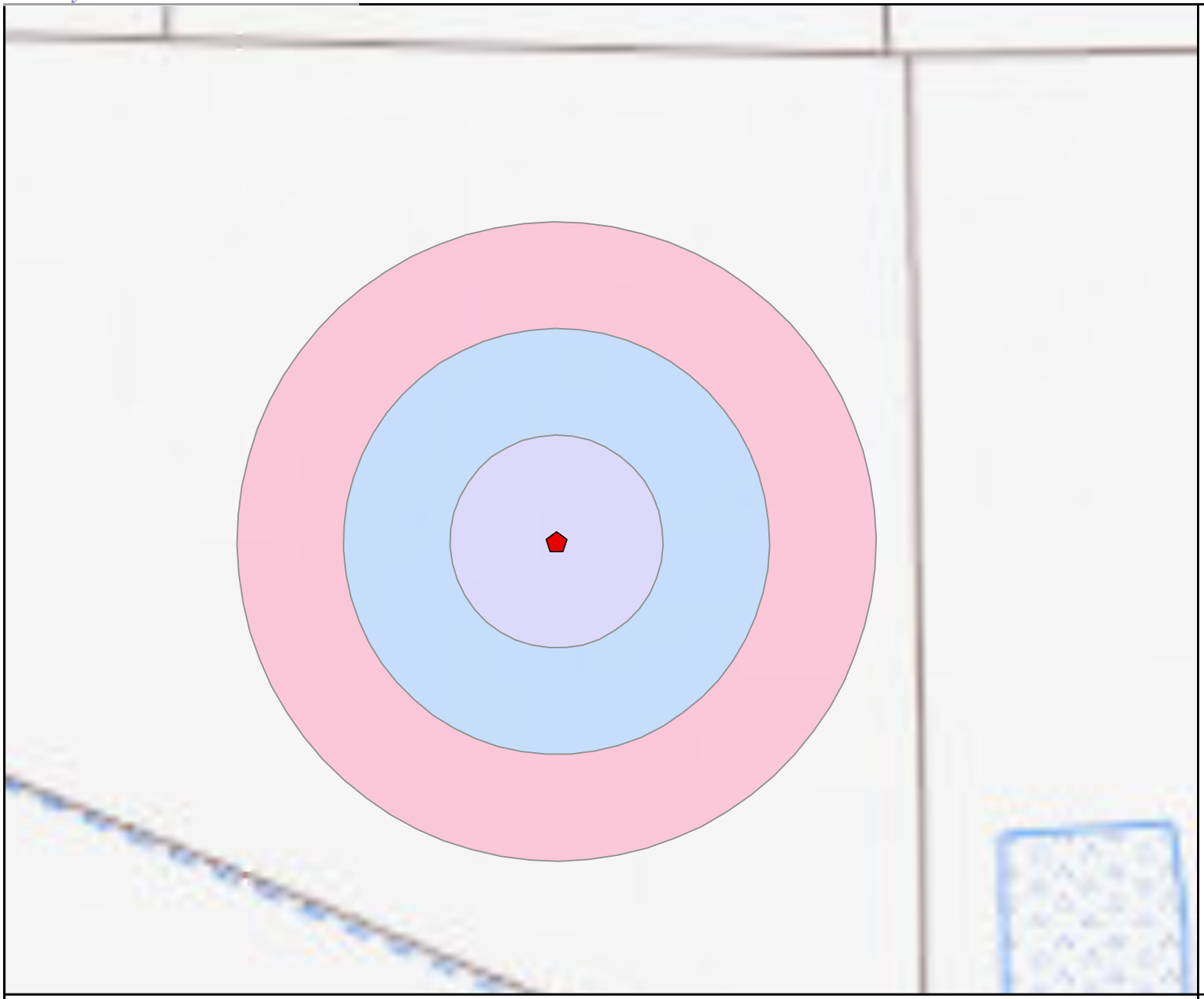
\\CBO10\Projects\MATADOR\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 12/17/2018

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

Drawn	LCM
Date	1/2/2019
Checked	
Approved	

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



Point of Release
Springs Seeps
Streams Canals
Rivers
Flowlines SENM
NM Wetlands
Lakes Playas
FEMA Flood Zones 2011

AGOL Data

Buffer Distance
100 Feet
200 Feet
300 Feet

N

210
Feet

Surface Water Protection Map
Janie Conner 13 24S 28E RB #221H
Eddy County, New Mexico

Figure 2

\\CBO10\Projects\MATADOR\GIS\ARCGIS\MATADOR_MIT.aprx

Date Saved: 12/17/2018

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

Drawn
Date 1/2/2019
Checked
Approved

SMA

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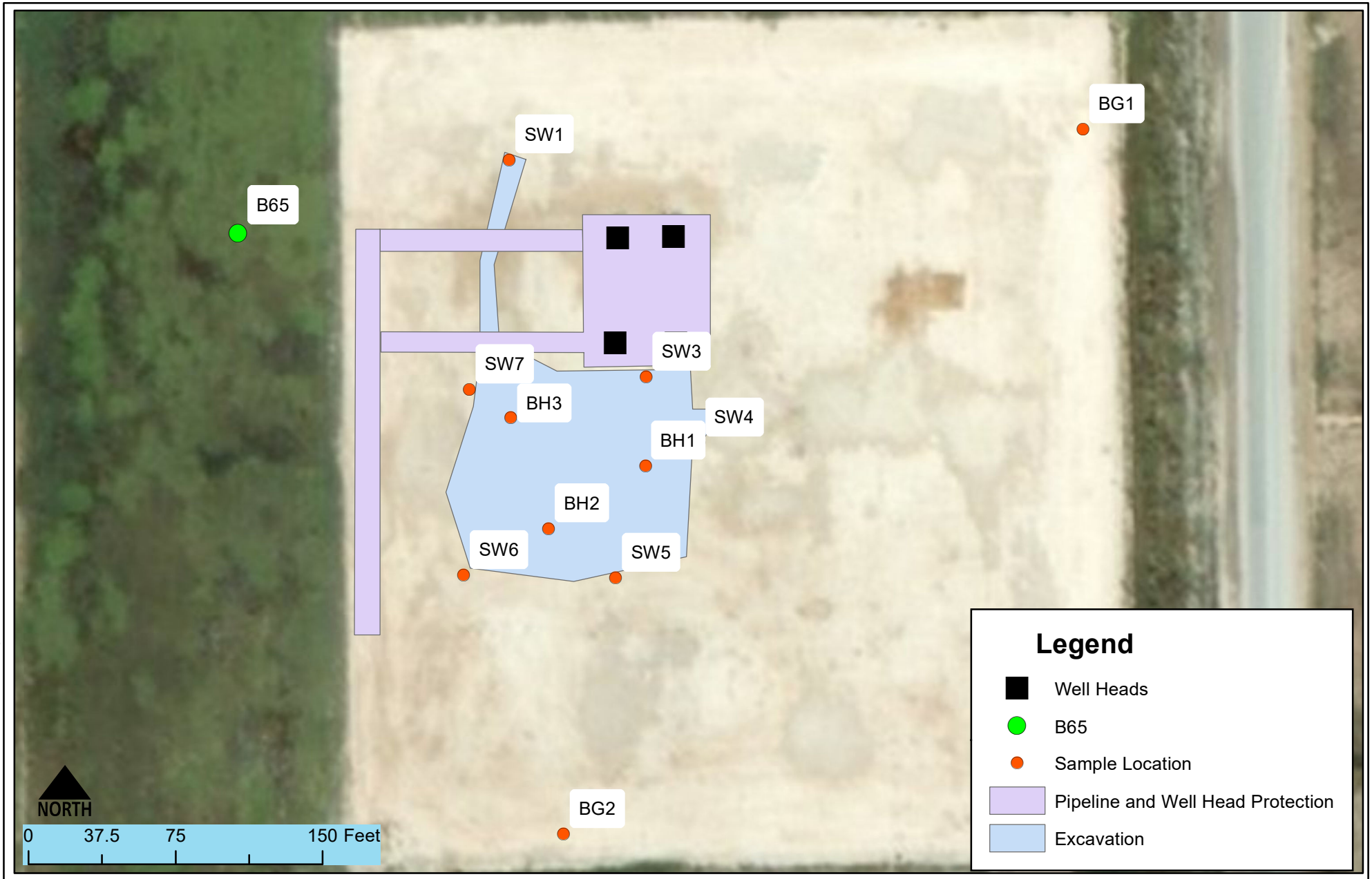

Detailed Site and Sample Map
Janie Conner #221H - Matador Resources
S: 13 T24S R28E, Eddy County New Mexico

Figure 3

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

Drawn Lucas Middleton
Checked
Approved

201 South Halaguena Street
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Date Saved: 1/4/2019

Document: C:\Users\lcm\Documents\GIS DATA\MAPS\Janie Conner #2221 Figure 22.mxd

Detailed Site and Sample Map
Janie Conner Production - Matador Resources
Company Loving, New Mexico

Figure 3B

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

Drawn Lucas Middleton
Checked
Approved

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Date Saved: 8/25/2016

Document: C:\Users\lcm.CBO\Documents\GIS DATA\MAPS\Janie Conner #201H -2 Figure 2.mxd

TABLES

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	~35	OSE, USGS
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	870	OSE
Hortizontal Distance to Nearest Significant Watercourse (miles)	0.66	Topographic Map

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

SMA #

Table 3:
Summary of Sample Results

Matador Resources
Janie Conner #221 2RP-3739

Sample ID	Sample Date	Depth (feet bgs)	Proposed Action/ Action Taken	BTEX mg/Kg	Benzene mg/Kg	GRO mg/Kg	DRO mg/Kg	MRO mg/Kg	**Total TPH** mg/Kg	Cl- mg/Kg
NMOCD Closure Criteria				50	10	1000			100	600
BH1	9/4/2018	2	Sample	<0.093	<0.023	<4.7	<9.4	<47	<47	310
	9/4/2018	3	Sample	--	--	--	--	--	--	100
BH2	9/4/2018	2	Sample	--	--	--	--	--	--	28
	9/4/2018	3	Sample	<0.093	<0.023	<4.6	<9.2	<46	<46	12
BH3	9/4/2018	4	Sample	<0.099	<0.025	<5.0	<9.5	<48	<48	810
SW1	9/4/2018	1	Sample	--	--	--	--	--	--	69
SW3	9/4/2018	1	Sample	--	--	--	--	--	--	210
SW4	9/4/2018	1	Sample	--	--	--	--	--	--	710
SW5	9/4/2018	1	Sample	--	--	--	--	--	--	230
SW6	9/4/2018	1	Sample	--	--	--	--	--	--	420
SW7	9/4/2018	2	Sample	--	--	--	--	--	--	320
BG5	9/18/2018	1	Sample	--	--	--	--	--	--	1100
	9/18/2018	2	Sample	--	--	--	--	--	--	1300
	9/18/2018	3	Sample	--	--	--	--	--	--	550
	9/18/2018	4	Sample	--	--	--	--	--	--	840
	9/18/2018	5	Sample	--	--	--	--	--	--	79

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

SMA #

APPENDIX A
C141 FORMS

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 13 2016
RECEIVED

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

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

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

nAB1616636453

OPERATOR

x☐ Initial Report ☐ Final Report

Name of Company Matador Resources 228937	Contact Catherine Green
Address 500 N Main St Suite 1 Roswell NM 88201	Telephone No. 575-623-6601
Facility Name Janie Conner 13 24S 28E RB #221H	Facility Type Oil well

Surface Owner Private	Mineral Owner	API No. 30-015-43756

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
A	14	24S	28E	379	N	330	E	Eddy

Latitude 32.2238661 **Longitude** -104.0500431

NATURE OF RELEASE

Type of Release Oil Based Mud	Volume of Release 13 bbls	Volume Recovered 13bbls
Source of Release Frac tank hose	Date and Hour of Occurrence 6/12/16 12:15am	Date and Hour of Discovery 6/12/16 12:15am
Was Immediate Notice Given? x☐ Yes ☐ No ☐ Not Required	If YES, To Whom? Casey Snow	
By Whom? Martin Boquet	Date and Hour 6/12/16 3pm.	
Was a Watercourse Reached? ☐ Yes x☐ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

Hose separated at connection. Procedure was halted. Hose was crimped.

Describe Area Affected and Cleanup Action Taken.*

Material was vacuumed up on location.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD 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 NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD 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: Catherine Green

Printed Name: Catherine Green

Title: Regulatory Analyst

E-mail Address: cgreen@matadorresources.com

Date: June 13, 2016 Phone:575-623-6601

OIL CONSERVATION DIVISION

Approved by Environmental Specialist: Signed By

Approval Date: 6/14/16 Expiration Date: N/A

Conditions of Approval: Attached ☐

Remediation per O.C.D. Rules & Guidelines
SUBMIT REMEDIATION PROPOSAL NO LATER THAN: 7/14/16 2RP-3739

* Attach Additional Sheets If Necessary

Bratcher, Mike, EMNRD

From: Catherine Green <CGreen@matadorresources.com>
Sent: Monday, June 13, 2016 9:27 AM
To: Bratcher, Mike, EMNRD
Subject: Janie Conner 221H spill June 12 2016.doc
Attachments: Janie Conner 221H spill June 12 2016.doc

Mr. Bratcher,

Please find attached a C-141.

Kind Regards,

Catherine Green

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

State of New Mexico
Energy Minerals and Natural Resources Department

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

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

Incident ID	
District RP	2RP-3739
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Matador Resources Company	OGRID 228937
Contact Name John Hurt	Contact Telephone 972-371-5200
Contact email JHurt@matadorresources.com	Incident # *(assigned by OCD)* 2RP-3739
Contact mailing address5400 LBJ Freeway, Suite 1500 Dallas,TX 75240	

Location of Release Source

Latitude 32.2238661 Longitude -104.050043
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Janie Conner 13 24S 28E RB #221H	Site Type Oil well
Date Release Discovered 6/12/16	API# *(if applicable)* 30-015-43756

Unit Letter	Section	Township	Range	County
A	14	24S	28E	Eddy

Surface Owner: ☐ State ☐ Federal ☐ Tribal ☒ Private (*Name: MCDONALD, HENRY*)

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 dissolved chloride 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) Oil Based Mud	Volume/Weight Released (provide units) 13 bbls	Volume/Weight Recovered (provide units) 13 bbls

Cause of Release:
Hose separated at connection. Procedure was halted. Hose was crimped.

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3739
Facility ID	
Application ID	

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

Initial Response

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

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

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

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

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 1/4/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

Form C-141
Page 3

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3739
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	35 (ft bgs)
Did this release impact groundwater or surface water?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or any other significant watercourse?	☐ Yes ☒ No
Are the lateral extents of the release within 200 feet of any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)?	☒ Yes ☐ No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital, institution, or church?	☐ Yes ☒ No
Are the lateral extents of the release within 500 horizontal feet of a spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes?	☐ Yes ☒ No
Are the lateral extents of the release within 1000 feet of any other fresh water well or spring?	☒ Yes ☐ No
Are the lateral extents of the release within incorporated municipal boundaries or within a defined municipal fresh water well field?	☐ Yes ☒ No
Are the lateral extents of the release within 300 feet of a wetland?	☐ Yes ☒ No
Are the lateral extents of the release overlying a subsurface mine?	☐ Yes ☒ No
Are the lateral extents of the release overlying an unstable area such as karst geology?	☒ Yes ☐ No
Are the lateral extents of the release within a 100-year floodplain?	☐ Yes ☒ No
Did the release impact areas **not** on an exploration, development, production, or storage site?	☐ Yes ☒ No

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

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

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

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

Form C-141
Page 4

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3739
Facility ID	
Application ID	

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 1/4/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

OCD Only

Received by: Date:

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	2RP-3739
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: John Hurt Title: RES Specialist

Signature: Date: 1/4/19

email: JHurt@matadorresources.com Telephone: 972-371-5200

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

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

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

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

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

POD Number	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 00738	CUB	ED	3	1	1	13	24S	28E	589673	3565472*	237	125	12	113
C 00574	CUB	ED	2	4	4	11	24S	28E	589452	3566081*	439	200	20	180
C 00903	C	ED		2	1	13	24S	28E	590178	3565575*	670	57	30	27
C 00464	CUB	ED	2	2	1	13	24S	28E	590277	3565674*	765	111	28	83

Average Depth to Water: **22 feet**

Minimum Depth: **12 feet**

Maximum Depth: **30 feet**

Record Count: 4

UTMNAD83 Radius Search (in meters):

Easting (X): 589511.6 **Northing (Y):** 3565645.69 **Radius:** 804

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

APPENDIX C

LABORATORY ANALYTICAL REPORTS

Analytical Report
Lab Order: **1809C05**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Lab Order:** 1809C05
Project: Janie Connol B65

Lab ID: 1809C05-001 **Collection Date:** 9/18/2018 11:00:00 AM
Client Sample ID: B65-1 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **smb**
Chloride	1100	30		mg/Kg	20	9/26/2018 5:13:32 PM

Lab ID: 1809C05-002 **Collection Date:** 9/18/2018 11:10:00 AM
Client Sample ID: B65-2 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **smb**
Chloride	1200	30	E	mg/Kg	20	9/26/2018 5:50:45 PM

Lab ID: 1809C05-003 **Collection Date:** 9/18/2018 11:20:00 AM
Client Sample ID: B65-3 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **smb**
Chloride	550	30		mg/Kg	20	9/26/2018 6:03:10 PM

Lab ID: 1809C05-004 **Collection Date:** 9/18/2018 11:30:00 AM
Client Sample ID: B65-4 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **smb**
Chloride	840	30		mg/Kg	20	9/26/2018 6:15:34 PM

Lab ID: 1809C05-005 **Collection Date:** 9/18/2018 11:40:00 AM
Client Sample ID: B65-5 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **smb**
Chloride	79	30		mg/Kg	20	9/26/2018 6:27:59 PM

Lab ID: 1809C05-006 **Collection Date:** 9/18/2018 11:50:00 AM
Client Sample ID: B65-6 **Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
EPA METHOD 300.0: ANIONS						Analyst: **smb**
Chloride	110	30		mg/Kg	20	9/26/2018 6:40:24 PM

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

Qualifiers:

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

Analytical Report
Lab Order: **1809C05**
Date Reported:

Hall Environmental Analysis Laboratory, Inc.

CLIENT:	Souder, Miller & Associates	**Lab Order:**	1809C05
Project:	Janie Connol B65		

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

Qualifiers:	*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank	
	D	Sample Diluted Due to Matrix	E	Value above quantitation range	
	H	Holding times for preparation or analysis exceeded	J	Analyte detected below quantitation limits	Page 2 of 0
	ND	Not Detected at the Reporting Limit	P	Sample pH Not In Range	
	PQL	Practical Quanitative Limit	RL	Reporting Detection Limit	

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

December 06, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Jonie Connor OrderNo.: 1811E80

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 11 sample(s) on 11/30/2018 for the analyses presented in the following report.

These were analyzed according to EPA procedures or equivalent. To access our accredited tests please go to www.hallenvironmental.com or the state specific web sites. In order to properly interpret your results, it is imperative that you review this report in its entirety. See the sample checklist and/or the Chain of Custody for information regarding the sample receipt temperature and preservation. Data qualifiers or a narrative will be provided if the sample analysis or analytical quality control parameters require a flag. When necessary, data qualifiers are provided on both the sample analysis report and the QC summary report, both sections should be reviewed. All samples are reported, as received, unless otherwise indicated. Lab measurement of analytes considered field parameters that require analysis within 15 minutes of sampling such as pH and residual chlorine are qualified as being analyzed outside of the recommended holding time.

Please don't hesitate to contact HEAL for any additional information or clarifications.

ADHS Cert #AZ0682 -- NMED-DWB Cert #NM9425 -- NMED-Micro Cert #NM0901

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-2
Project: Jonie Connor
Collection Date: 9/4/2018 9:00:00 AM
Lab ID: 1811E80-001 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	310	30	H	mg/Kg	20	12/5/2018 3:30:04 AM	41883
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	9.4	H	mg/Kg	1	12/5/2018 3:57:16 AM	41858
Motor Oil Range Organics (MRO)	ND	47	H	mg/Kg	1	12/5/2018 3:57:16 AM	41858
Surr: DNOP	96.1	50.6-138	H	%Rec	1	12/5/2018 3:57:16 AM	41858
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.7	H	mg/Kg	1	12/3/2018 9:56:44 PM	41830
Surr: BFB	89.8	73.8-119	H	%Rec	1	12/3/2018 9:56:44 PM	41830
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023	H	mg/Kg	1	12/3/2018 9:56:44 PM	41830
Toluene	ND	0.047	H	mg/Kg	1	12/3/2018 9:56:44 PM	41830
Ethylbenzene	ND	0.047	H	mg/Kg	1	12/3/2018 9:56:44 PM	41830
Xylenes, Total	ND	0.093	H	mg/Kg	1	12/3/2018 9:56:44 PM	41830
Surr: 4-Bromofluorobenzene	95.4	80-120	H	%Rec	1	12/3/2018 9:56:44 PM	41830

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

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH1-3
Project: Jonie Connor
Collection Date: 9/4/2018 9:15:00 AM
Lab ID: 1811E80-002 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	100	30	H	mg/Kg	20	12/5/2018 3:42:29 AM	41883

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-2
Project: Jonie Connor
Collection Date: 9/4/2018 10:30:00 AM
Lab ID: 1811E80-003 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	280	30	H	mg/Kg	20	12/5/2018 1:12:45 PM	41911

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH2-3
Project: Jonie Connor
Collection Date: 9/4/2018 10:40:00 AM
Lab ID: 1811E80-004 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	120	30	H	mg/Kg	20	12/5/2018 1:49:59 PM	41911
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	9.2	H	mg/Kg	1	12/5/2018 4:21:22 AM	41858
Motor Oil Range Organics (MRO)	ND	46	H	mg/Kg	1	12/5/2018 4:21:22 AM	41858
Surr: DNOP	98.6	50.6-138	H	%Rec	1	12/5/2018 4:21:22 AM	41858
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	4.6	H	mg/Kg	1	12/3/2018 10:20:10 PM	41830
Surr: BFB	89.8	73.8-119	H	%Rec	1	12/3/2018 10:20:10 PM	41830
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.023	H	mg/Kg	1	12/3/2018 10:20:10 PM	41830
Toluene	ND	0.046	H	mg/Kg	1	12/3/2018 10:20:10 PM	41830
Ethylbenzene	ND	0.046	H	mg/Kg	1	12/3/2018 10:20:10 PM	41830
Xylenes, Total	ND	0.093	H	mg/Kg	1	12/3/2018 10:20:10 PM	41830
Surr: 4-Bromofluorobenzene	95.7	80-120	H	%Rec	1	12/3/2018 10:20:10 PM	41830

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

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: BH3-4
Project: Jonie Connor
Collection Date: 9/4/2018 10:50:00 AM
Lab ID: 1811E80-005 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst:	**MRA**
Chloride	810	30	H	mg/Kg	20	12/5/2018 2:27:12 PM	41911
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst:	**lrm**
Diesel Range Organics (DRO)	ND	9.5	H	mg/Kg	1	12/5/2018 4:45:23 AM	41858
Motor Oil Range Organics (MRO)	ND	48	H	mg/Kg	1	12/5/2018 4:45:23 AM	41858
Surr: DNOP	98.5	50.6-138	H	%Rec	1	12/5/2018 4:45:23 AM	41858
EPA METHOD 8015D: GASOLINE RANGE						Analyst:	**NSB**
Gasoline Range Organics (GRO)	ND	5.0	H	mg/Kg	1	12/3/2018 10:43:33 PM	41830
Surr: BFB	89.2	73.8-119	H	%Rec	1	12/3/2018 10:43:33 PM	41830
EPA METHOD 8021B: VOLATILES						Analyst:	**NSB**
Benzene	ND	0.025	H	mg/Kg	1	12/3/2018 10:43:33 PM	41830
Toluene	ND	0.050	H	mg/Kg	1	12/3/2018 10:43:33 PM	41830
Ethylbenzene	ND	0.050	H	mg/Kg	1	12/3/2018 10:43:33 PM	41830
Xylenes, Total	ND	0.099	H	mg/Kg	1	12/3/2018 10:43:33 PM	41830
Surr: 4-Bromofluorobenzene	94.9	80-120	H	%Rec	1	12/3/2018 10:43:33 PM	41830

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

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: Jonie Connor
Collection Date: 9/4/2018 11:00:00 AM
Lab ID: 1811E80-006 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	69	30	H	mg/Kg	20	12/5/2018 2:39:37 PM	41911

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW3
Project: Jonie Connor
Collection Date: 9/4/2018 11:05:00 AM
Lab ID: 1811E80-007 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	210	30	H	mg/Kg	20	12/5/2018 2:52:01 PM	41911

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: Jonie Connor
Collection Date: 9/4/2018 11:15:00 AM
Lab ID: 1811E80-008 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	710	30	H	mg/Kg	20	12/5/2018 3:04:25 PM	41911

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW5
Project: Jonie Connor
Collection Date: 9/4/2018 11:20:00 AM
Lab ID: 1811E80-009 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	230	30	H	mg/Kg	20	12/5/2018 3:16:50 PM	41911

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW6
Project: Jonie Connor
Collection Date: 9/4/2018 11:25:00 AM
Lab ID: 1811E80-010 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	420	30	H	mg/Kg	20	12/5/2018 3:29:14 PM	41911

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

Qualifiers:

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

Analytical Report
Lab Order **1811E80**
Date Reported: **12/6/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW7
Project: Jonie Connor
Collection Date: 9/4/2018 11:30:00 AM
Lab ID: 1811E80-011 **Matrix:** SOIL **Received Date:** 11/30/2018 8:45:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	320	30	H	mg/Kg	20	12/5/2018 3:41:39 PM	41911

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1811E80**

06-Dec-18

Client: Souder, Miller & Associates

Project: Jonie Connor

Sample ID	**MB-41883**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**41883**	RunNo:	**56076**					
Prep Date:	**12/4/2018**	Analysis Date:	**12/4/2018**	SeqNo:	**1872787**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-41883**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**41883**	RunNo:	**56076**					
Prep Date:	**12/4/2018**	Analysis Date:	**12/4/2018**	SeqNo:	**1872788**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	15	1.5	15.00	0	97.4	90	110			

Sample ID	**MB-41911**	SampType:	**mblk**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**PBS**	Batch ID:	**41911**	RunNo:	**56106**					
Prep Date:	**12/5/2018**	Analysis Date:	**12/5/2018**	SeqNo:	**1874612**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID	**LCS-41911**	SampType:	**lcs**	TestCode:	**EPA Method 300.0: Anions**					
Client ID:	**LCSS**	Batch ID:	**41911**	RunNo:	**56106**					
Prep Date:	**12/5/2018**	Analysis Date:	**12/5/2018**	SeqNo:	**1874613**	Units:	**mg/Kg**			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.5	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1811E80**
06-Dec-18

Client: Souder, Miller & Associates
Project: Jonie Connor

Sample ID	**LCS-41858**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**41858**		RunNo:	**56060**				
Prep Date:	**12/3/2018**	Analysis Date:	**12/4/2018**		SeqNo:	**1872032**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	91.8	70	130			
Surr: DNOP	4.9		5.000		97.4	50.6	138			

Sample ID	**MB-41858**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**41858**		RunNo:	**56060**				
Prep Date:	**12/3/2018**	Analysis Date:	**12/4/2018**		SeqNo:	**1872034**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		105	50.6	138			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1811E80**
06-Dec-18

Client: Souder, Miller & Associates
Project: Jonie Connor

Sample ID	**MB-41830**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**41830**	RunNo:	**56032**					
Prep Date:	**11/30/2018**	Analysis Date:	**12/3/2018**	SeqNo:	**1870919**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	910		1000		91.2	73.8	119			

Sample ID	**LCS-41830**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**41830**	RunNo:	**56032**					
Prep Date:	**11/30/2018**	Analysis Date:	**12/3/2018**	SeqNo:	**1870920**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	99.8	80.1	123			
Surr: BFB	1100		1000		106	73.8	119			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1811E80**
06-Dec-18

Client: Souder, Miller & Associates
Project: Jonie Connor

Sample ID	**MB-41830**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID:	**PBS**	Batch ID: **41830**	RunNo: **56032**
Prep Date:	**11/30/2018**	Analysis Date: **12/3/2018**	SeqNo: **1870962** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.96		1.000		96.1	80	120			

Sample ID	**LCS-41830**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID:	**LCSS**	Batch ID: **41830**	RunNo: **56032**
Prep Date:	**11/30/2018**	Analysis Date: **12/3/2018**	SeqNo: **1870963** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.025	1.000	0	101	80	120			
Toluene	1.0	0.050	1.000	0	104	80	120			
Ethylbenzene	1.0	0.050	1.000	0	102	80	120			
Xylenes, Total	3.1	0.10	3.000	0	104	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Qualifiers:

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

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: 1811E80 RcptNo: 1

Received By: Erin Melendrez 11/30/2018 8:45:00 AM

Completed By: Jazzmine Burkhead 11/30/2018 9:22:58 AM

Reviewed By: DAD 11/30/18

Labeled by: ENM 11/30/18

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples?	Yes ☑	No ☐	NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C	Yes ☑	No ☐	NA ☐
5. Sample(s) in proper container(s)?	Yes ☑	No ☐	
6. Sufficient sample volume for indicated test(s)?	Yes ☑	No ☐	
7. Are samples (except VOA and ONG) properly preserved?	Yes ☑	No ☐	
8. Was preservative added to bottles?	Yes ☐	No ☑	NA ☐
9. VOA vials have zero headspace?	Yes ☐	No ☐	No VOA Vials ☑
10. Were any sample containers received broken?	Yes ☐	No ☑	
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody)	Yes ☑	No ☐	# of preserved bottles checked for pH: (<2 or >12 unless noted)
12. Are matrices correctly identified on Chain of Custody?	Yes ☑	No ☐	Adjusted?
13. Is it clear what analyses were requested?	Yes ☑	No ☐	ENM 11/30/18
14. Were all holding times able to be met? (If no, notify customer for authorization.)	Yes ☑	No ☐	Checked by:

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.8	Good	Yes			

Chain-of-Custody Record

Client: SMA Carlsbad

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 5day

Project Name: Janie Connor

Project #:

Project Manager: Austin Weyant

Sampler: LCM

On Ice: ☒ Yes ☐ No

# of Coolers: 1 (CF=-1.0)

Cooler Temp(including CF): 2.8

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1811E80	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9-27-18	900	soil	BH1 - 2	4oz		-001	X	X					X			
	915		BH1 - 3			-002										
	1030		BH2 - 2			-003										
	1040		BH2 - 3			-004	X	X								
	1050		BH3 - 4			-005	X	X								
	1100		SW 1			-006										
	11:05		SW3			-007										
	11:15		SW4			-008										
	1120		SW 5			-009										
	11:25		SW 6			-010										
	11:30		SW 7			-011										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
11/28	10:45	Samantha Watson			11/28/18	0800
11/28/18	1900			Courier	11/30/18	0845

Remarks: Matador Ran out of hold per Samantha

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

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

February 15, 2018

Austin Weyant
Souder, Miller & Associates
201 S Halagueno
Carlsbad, NM 88221
TEL: (575) 689-7040
FAX

RE: Janie Conner OrderNo.: 1802502

Dear Austin Weyant:

Hall Environmental Analysis Laboratory received 4 sample(s) on 2/8/2018 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 #NM0190

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1802502**
Date Reported: **2/15/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L1
Project: Janie Conner
Collection Date: 1/31/2018 2:00:00 PM
Lab ID: 1802502-001 **Matrix:** SOIL **Received Date:** 2/8/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	560	9.1		mg/Kg	1	2/13/2018 3:42:36 PM	36466
Motor Oil Range Organics (MRO)	150	46		mg/Kg	1	2/13/2018 3:42:36 PM	36466
Surr: DNOP	113	70-130		%Rec	1	2/13/2018 3:42:36 PM	36466
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	2/9/2018 5:18:40 PM	36440
Surr: BFB	83.2	15-316		%Rec	1	2/9/2018 5:18:40 PM	36440

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

Qualifiers:

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

Analytical Report
Lab Order **1802502**
Date Reported: **2/15/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L2
Project: Janie Conner
Collection Date: 1/31/2018 2:10:00 PM
Lab ID: 1802502-002 **Matrix:** SOIL **Received Date:** 2/8/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	510	9.7		mg/Kg	1	2/14/2018 11:38:47 AM	36466
Motor Oil Range Organics (MRO)	180	49		mg/Kg	1	2/14/2018 11:38:47 AM	36466
Surr: DNOP	70.8	70-130		%Rec	1	2/14/2018 11:38:47 AM	36466
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2018 5:42:01 PM	36440
Surr: BFB	83.3	15-316		%Rec	1	2/9/2018 5:42:01 PM	36440
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**	
Methyl tert-butyl ether (MTBE)	ND	0.097		mg/Kg	1	2/9/2018 5:42:01 PM	36440
Benzene	ND	0.024		mg/Kg	1	2/9/2018 5:42:01 PM	36440
Toluene	ND	0.048		mg/Kg	1	2/9/2018 5:42:01 PM	36440
Ethylbenzene	ND	0.048		mg/Kg	1	2/9/2018 5:42:01 PM	36440
Xylenes, Total	ND	0.097		mg/Kg	1	2/9/2018 5:42:01 PM	36440
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	2/9/2018 5:42:01 PM	36440

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

Qualifiers:

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

Analytical Report
Lab Order **1802502**
Date Reported: **2/15/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L3
Project: Janie Conner
Collection Date: 1/31/2018 2:15:00 PM
Lab ID: 1802502-003 **Matrix:** SOIL **Received Date:** 2/8/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	130	9.5		mg/Kg	1	2/13/2018 4:31:42 PM	36466
Motor Oil Range Organics (MRO)	130	47		mg/Kg	1	2/13/2018 4:31:42 PM	36466
Surr: DNOP	99.7	70-130		%Rec	1	2/13/2018 4:31:42 PM	36466
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	2/9/2018 6:05:26 PM	36440
Surr: BFB	81.2	15-316		%Rec	1	2/9/2018 6:05:26 PM	36440

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

Qualifiers:

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

Analytical Report
Lab Order **1802502**
Date Reported: **2/15/2018**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: L4
Project: Janie Conner
Collection Date: 1/31/2018 2:20:00 PM
Lab ID: 1802502-004 **Matrix:** SOIL **Received Date:** 2/8/2018 10:00:00 AM

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**	
Diesel Range Organics (DRO)	800	96		mg/Kg	10	2/13/2018 2:53:41 PM	36466
Motor Oil Range Organics (MRO)	1100	480		mg/Kg	10	2/13/2018 2:53:41 PM	36466
Surr: DNOP	0	70-130	S	%Rec	10	2/13/2018 2:53:41 PM	36466
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**	
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	2/9/2018 6:28:50 PM	36440
Surr: BFB	83.0	15-316		%Rec	1	2/9/2018 6:28:50 PM	36440

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802502**

15-Feb-18

Client: Souder, Miller & Associates

Project: Janie Conner

Sample ID	**LCS-36466**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**36466**		RunNo:	**49070**				
Prep Date:	**2/12/2018**	Analysis Date:	**2/13/2018**		SeqNo:	**1579508**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	10	50.00	0	92.4	70	130			
Surr: DNOP	4.4		5.000		87.9	70	130			

Sample ID	**MB-36466**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**36466**		RunNo:	**49070**				
Prep Date:	**2/12/2018**	Analysis Date:	**2/13/2018**		SeqNo:	**1579509**	Units:	**mg/Kg**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		102	70	130			

Sample ID	**LCS-36519**	SampType:	**LCS**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**LCSS**	Batch ID:	**36519**		RunNo:	**49118**				
Prep Date:	**2/14/2018**	Analysis Date:	**2/14/2018**		SeqNo:	**1582129**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.4		5.000		87.5	70	130			

Sample ID	**MB-36519**	SampType:	**MBLK**		TestCode:	**EPA Method 8015M/D: Diesel Range Organics**				
Client ID:	**PBS**	Batch ID:	**36519**		RunNo:	**49118**				
Prep Date:	**2/14/2018**	Analysis Date:	**2/14/2018**		SeqNo:	**1582135**	Units:	**%Rec**		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	10		10.00		102	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802502**

15-Feb-18

Client: Souder, Miller & Associates

Project: Janie Conner

Sample ID	**MB-36440**	SampType:	**MBLK**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**PBS**	Batch ID:	**36440**	RunNo:	**49018**					
Prep Date:	**2/8/2018**	Analysis Date:	**2/9/2018**	SeqNo:	**1578201**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1100		1000		110	15	316			

Sample ID	**LCS-36440**	SampType:	**LCS**	TestCode:	**EPA Method 8015D: Gasoline Range**					
Client ID:	**LCSS**	Batch ID:	**36440**	RunNo:	**49018**					
Prep Date:	**2/8/2018**	Analysis Date:	**2/9/2018**	SeqNo:	**1578202**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	25	5.0	25.00	0	102	75.9	131			
Surr: BFB	1200		1000		116	15	316			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1802502**

15-Feb-18

Client: Souder, Miller & Associates

Project: Janie Conner

Sample ID	**MB-36440**	SampType:	**MBLK**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**PBS**	Batch ID:	**36440**	RunNo:	**49018**					
Prep Date:	**2/8/2018**	Analysis Date:	**2/9/2018**	SeqNo:	**1578215**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	ND	0.10								
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	1.2		1.000		115	80	120			

Sample ID	**LCS-36440**	SampType:	**LCS**	TestCode:	**EPA Method 8021B: Volatiles**					
Client ID:	**LCSS**	Batch ID:	**36440**	RunNo:	**49018**					
Prep Date:	**2/8/2018**	Analysis Date:	**2/9/2018**	SeqNo:	**1578216**	Units:	**mg/Kg**			

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Methyl tert-butyl ether (MTBE)	0.92	0.10	1.000	0	92.3	70.1	121			
Benzene	1.0	0.025	1.000	0	103	77.3	128			
Toluene	1.0	0.050	1.000	0	104	79.2	125			
Ethylbenzene	1.0	0.050	1.000	0	104	80.7	127			
Xylenes, Total	3.2	0.10	3.000	0	107	81.6	129			
Surr: 4-Bromofluorobenzene	1.2		1.000		116	80	120			

Qualifiers:

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

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: 1802502 RcptNo: 1

Received By: Sophia Campuzano 2/8/2018 10:00:00 AM

Completed By: Dennis Suazo 2/8/2018 12:53:58 PM

Reviewed By: DDS 2/8/18

Labeled By

Chain of Custody

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

Log In

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

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)

Adjusted? _____

Checked by: _____

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	0.3	Good	Not Present			

Chain-of-Custody Record

Client: SMA Cardinal

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation
☐ NELAP ☐ Other _____

☐ EDD (Type) _____

Turn-Around Time:
☐ Standard ☐ Rush 5 day

Project Name: Janie Conner

Project #:

Project Manager: Austin Weyant

Sampler: Lm

On Ice: ☒ Yes ☐ No

Sample Temperature: 1.3-1.0(CF) = 0.3

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

Analysis Request

Date	Time	Matrix	Sample Request ID	Container Type and #	Preservative Type	HEAL No. 1802502	BTEX + MTBE + TMB's (8021)	BTEX + MTBE + TPH (Gas only)	TPH 8015B (GRO / DRO / MRO)	TPH (Method 418.1)	EDB (Method 504.1)	PAH's (8310 or 8270 SIMS)	RCRA 8 Metals	Anions ($F, Cl, NO_3, NO_2, PO_4, SO_4$)	8081 Pesticides / 8082 PCB's	8260B (VOA)	8270 (Semi-VOA)	Air Bubbles (Y or N)
1-3-18	200	Soil	L1	4oz		001			X									
	210		L2			002	X		X									
	215		L3			003			X									
	220		L4			004			X									

Date:	Time:	Relinquished by:	Received by:	Date	Time
1-7-18	7:00			1/7/18	1400
1/7/18	1900		courier	01/08/18	1000

Remarks: Matador

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

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

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

CONDITIONS

Action 383939

CONDITIONS

Operator: MATADOR PRODUCTION COMPANY One Lincoln Centre Dallas, TX 75240	OGRID: 228937
	Action Number: 383939
	Action Type: [IM-SD] Incident File Support Doc (ENV) (IM-BNF)

CONDITIONS

Created By	Condition	Condition Date
amaxwell	Historical document upload.	9/16/2024