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

April 22, 2020

#5E29133-BG16

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

SUBJECT: Remediation Closure Report for the North Thistle 2 State 1H Release (1RP-4124), Lea County, New Mexico

To Whom it May Concern:

On behalf of Devon Energy Production Co. LP (Devon), Souder, Miller & Associates (SMA) has prepared this Remediation Closure Report that describes the remediation of a release of liquids related to oil and gas production activities at the North Thistle 2 State 1H site. The site is in Unit B, Section 2, Township 23S, Range 33E, 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	North Thistle 2 State 1H	Company	Devon Energy Production
API Number	30-25-42533	Location	32.3395968442401, -103.541209799143
Incident Number	NKJ1603327792		
Estimated Date of Release	1/29/2016	Date Reported to NMOCD	1/30/2016
Land Owner	State	Reported To	NMOCD District 1
Source of Release	Hole in lay flat line		
Released Volume	5 bbls	Released Material	Produced Water
Recovered Volume	3 bbls	Net Release	2 bbls
NMOCD Closure Criteria	>100 feet to groundwater		
SMA Response Dates	3/20/2020		

1.0 Background

On January 29, 2016, a release was discovered at the North Thistle 2 State 1H site due to a hole in the lay flat line which caused a release of produced water. Initial response activities were conducted by Devon, and included source elimination and containment activities by shutting off the pumps, applying line pinchers, and replacing the section of damaged line. Site stabilization consisted of dispatching a vacuum truck to the site which recovered approximately three barrels of fluid. 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 North Thistle 2 State 1H is located approximately 23 miles southwest of Eunice, New Mexico on State land at an elevation of approximately 3,518 feet above mean sea level (amsl).

Based upon New Mexico Office of the State Engineer (NMOSE) (Appendix B), depth to groundwater in the area is estimated to be 370 feet below grade surface (bgs) after adjusting for elevation differences between water well locations and the release site. There are no known water sources within ½-mile of the location, however, there are seven within 3.1 miles according to the NMOSE online water well database (https://gis.ose.state.nm.us/gisapps/ose_pod_locations/; accessed 3/31/2020). The nearest significant watercourse is Antelope Draw, located approximately 8.75 miles to the southeast. Figure 2 illustrates the site with 200 and 300-foot radii to indicate that it does not lie within a sensitive area as described in 19.15.29.12.C(4) NMAC.

Based on the information presented herein, the applicable NMOCD Closure Criteria for this site is for a groundwater depth of greater than 100 feet bgs. The site meets 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 March 20, 2020, SMA personnel arrived on site in response to the release associated with the North Thistle 2 State 1H well. Because there was approximately a four-year gap between the time of release (Jan. 2016) and response (March 2020), the original spill area was not discernable through either staining or dead vegetation. SMA was able to determine the original release area through a site map and photos that were attached to the initial C-141. SMA performed site delineation activities by collecting soil samples around the release area. A total of nine samples (S1-S4, SW1-SW4, & Comp-6) were collected at the surface and sent for laboratory analysis. Samples S1-S4 were collected along the presumed spill path directly adjacent to the berm surrounding the pad. Standing fluids were clearly visible in this area in the photos attached to the C-141. Sidewall samples SW1-SW4 were collected to determine the lateral extents of the spill area. Sample Comp-6 was collected to determine the presence of contaminants where fluids ran north as indicated by the map attached to the C-141. Soil samples were analyzed for total chloride using EPA Method 300.0; benzene, toluene, ethylbenzene and total xylenes (BTEX) using EPA Method 8021B; and motor, diesel and gasoline range organics (MRO, DRO, and GRO) by EPA Method 8015D. Samples were placed into laboratory supplied glassware, labeled, and maintained on ice until delivery to Hall Environmental Analysis Laboratory in Albuquerque, New Mexico.

Figure 3 shows the original extent of the release and sample locations. Laboratory results are summarized in Table 3. Laboratory reports are included in Appendix C.

Lab results indicate that all samples met NMOCD closure criteria for both chlorides and hydrocarbons. In addition, the top four (4) feet of impacted areas off the well pad meet the Reclamation requirement of 19.15.29.13(D)(1). Removal of impacted soils is not required because closure criteria has been met. SMA recommends no further action.

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 Ashley Maxwell at 505-320-9241 or Shawna Chubbuck at 505-325-7535.

Submitted by:
SOUDER, MILLER & ASSOCIATES

Reviewed by:

Ashley Maxwell
Project 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

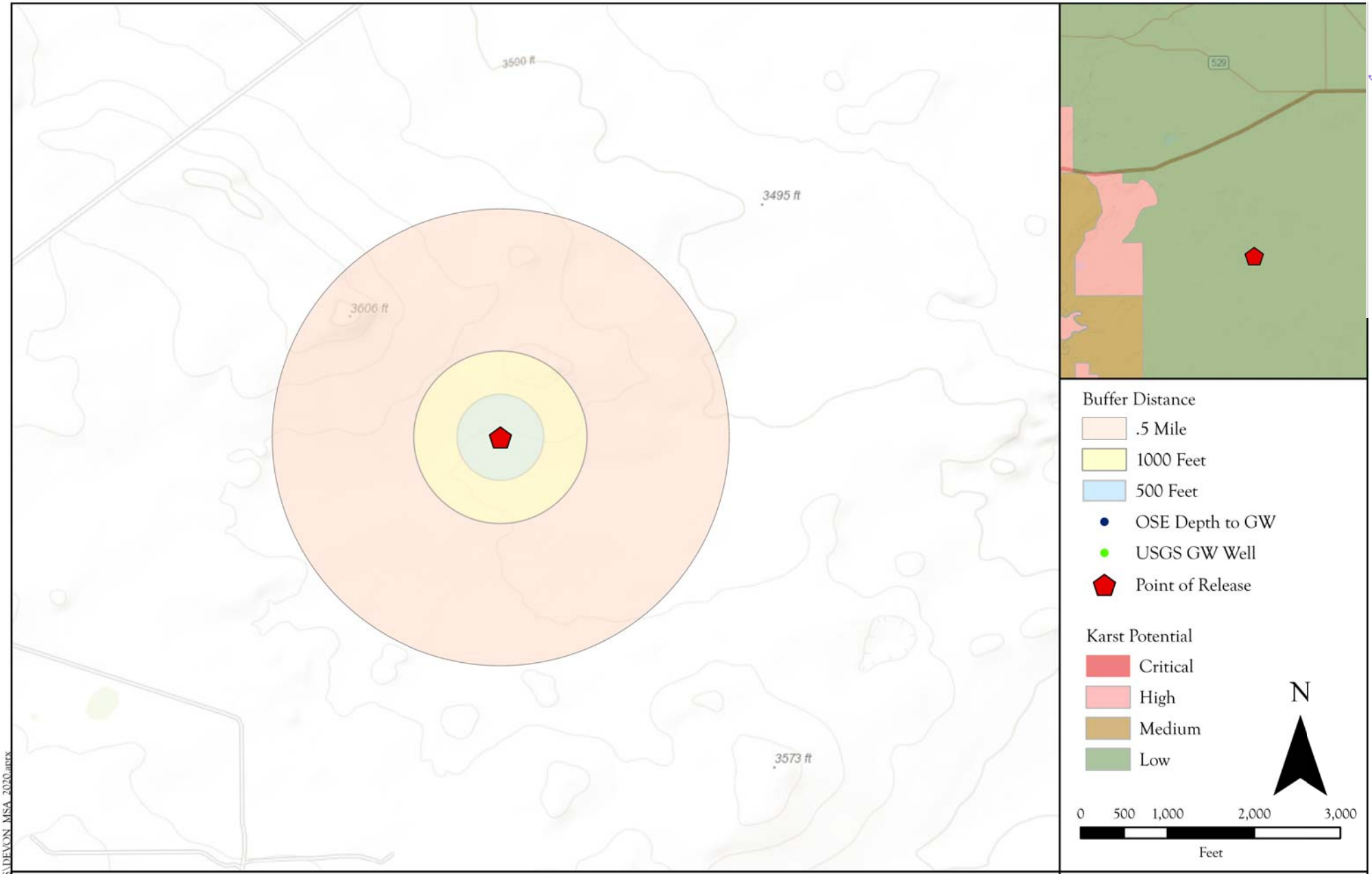
Tables:

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

Appendices:

Appendix A: Form C141
Appendix B: NMOSE Wells Report and Calculated Depth to Groundwater
Appendix C: Laboratory Analytical Reports
Appendix D: Photolog

FIGURES



Site Map
North Thistle 2 State #001H- Devon Energy
UL: B S: 2 T: 23S R: 33E, Lea County, New Mexico

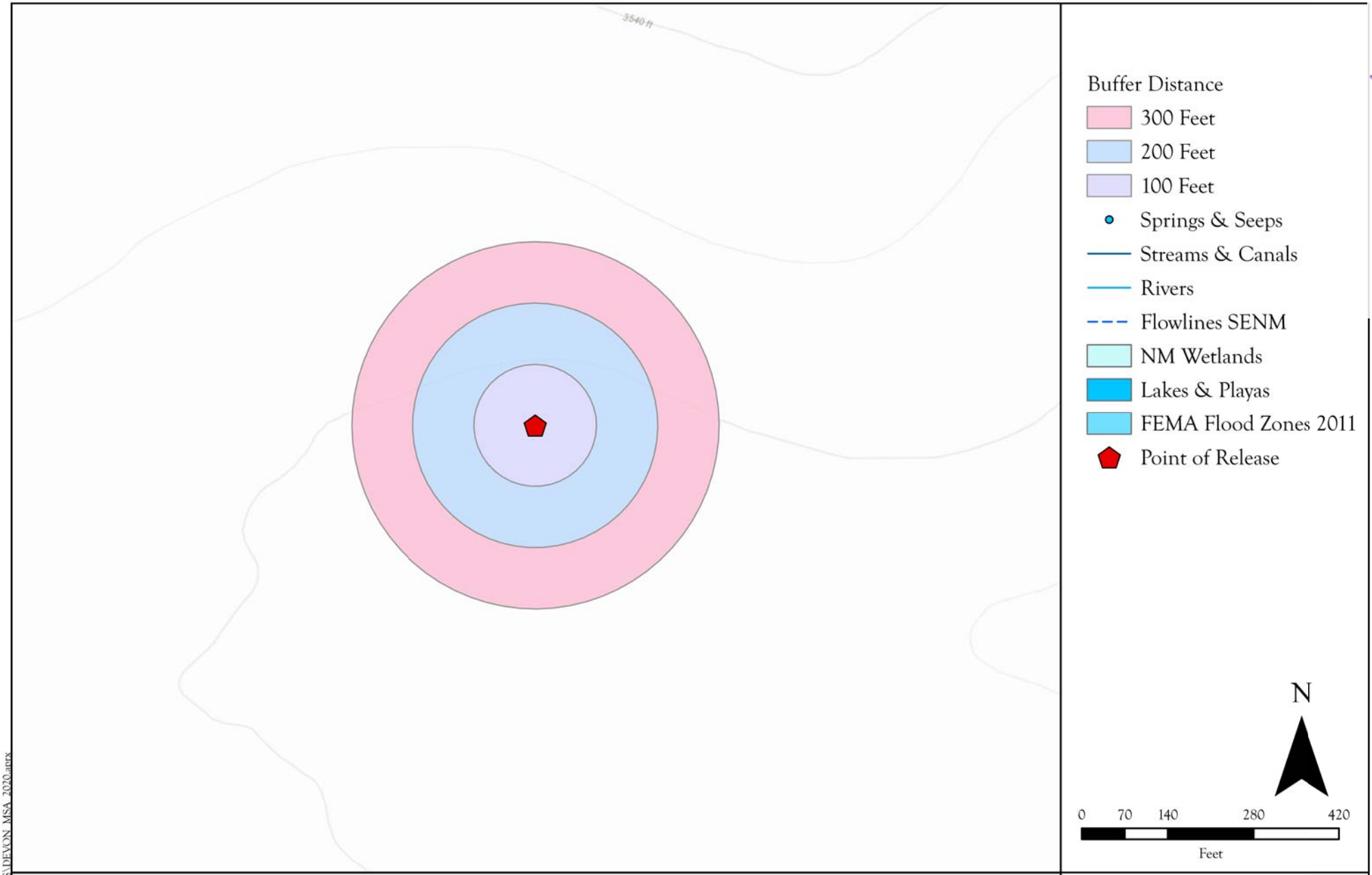
Figure 1

P:\5-Devon MSA 2020 (5F29133)\GIS\DEVON_MSA_2020.aprx
Date Saved: 4/21/2020

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

Drawn Sebastian Orozco
Date 4/21/2020
Checked
Approved

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



Surface Water Protection Map
North Thistle 2 State #001H- Devon Energy
UL: B S: 2 T: 23S R: 33E, Lea County, New Mexico

Figure 2

P:\5-Devon MSA 2020 (5F29133)\GIS\DEVON_MSA_2020.mxds
Date Saved: 4/21/2020

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

Drawn Sebastian Orozco
Date 4/21/2020
Checked _____
Approved _____

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

Release Area
Side Wall Samples
Soil Sample
Point of Release

N

0 5 10 20 30
Feet

Site and Sample Location Map
North Thistle 2 State #001H- Devon Energy
UL: B S: 21 T: 23S R: 33E, Lea County, New Mexico

Figure 3

P:\5-Devon MSA 2020 (5F29133)\GIS\DEVON_MSA_2020.mxds
Date Saved: 4/15/2020

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

Drawn Sebastian Orozco
Date 4/21/2020
Checked _____
Approved _____

SMA

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

TABLES

Table 2:
NMOCD Closure Criteria

Devon Energy
North Thistle 2 State 1H(1RP-4124)

Site Information (19.15.29.11.A(2, 3, and 4) NMAC)		Source/Notes
Depth to Groundwater (feet bgs)	370	New Mexico Office of the State Engineer
Hortizontal Distance From All Water Sources Within 1/2 Mile (ft)	N/A	USGS Topographic Map
Hortizontal Distance to Nearest Significant Watercourse (mi)	8.75	Antelope Draw to Southeast

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

SMA #

Table 3:
Summary of Sample Results

Devon Energy LLC
North Thistle 2 State 1H(1RP-4124)

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			2500	20000
SW1	4/2/2020	Surface	In-Situ	<0.221	<0.025	<4.9	<9.2	<46	<60.1	<61
SW2				<0.225	<0.025	<5.0	<9.1	<46	<60.1	<60
SW3				<0.221	<0.025	<4.9	<9.6	<48	<62.5	<60
SW4				<0.224	<0.025	<5.0	<9.7	<48	<62.7	**110**
S1				<0.220	<0.024	<4.9	<10	<50	<64.9	<60
S2				<0.222	<0.025	<4.9	<10	<50	<64.9	<60
S3				<0.225	<0.025	<5.0	<10	<51	<66	**120**
S4				<0.225	<0.025	<5.0	<9.3	<47	<61.3	**65**
Comp-6				<0.219	<0.024	<4.9	<8.5	<43	<56.4	<60

"--" = Not Analyzed

SMA #

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

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

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: **Devon Energy Production Co LP (6137)**	Contact: **Jeff Heath, Devon Assistant Foreman Completions**
Address: **PO Box 250 Artesia, NM 88211**	Telephone No. **575.513.2274**
Facility Name: **North Thistle 2 State 1H**	Facility Type : **Oil Well**

Surface Owner: **State**	Mineral Owner: **State**	API No. **30-025-42533**

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
B	**2**	**23S**	**33E**	**505**	**North**	**2030**	**East**	**Lea**

Latitude: 32.3395968442401 **Longitude:** -103.541209799143

NATURE OF RELEASE

Type of Release: **Produced Water**	Volume of Release: **5 BBLS**	Volume Recovered: **3 BBLS**
Source of Release: **Lay Flat Line**	Date and Hour of Occurrence: **1/29/2016; 10:30 PM**	Date and Hour of Discovery **1/29/2016; 10:30 PM**
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? **Kellie Jones - OCD**	
By Whom? **Jeff Heath, Devon Assistant Foreman Completions**	Date and Hour: **1/30/2016; 2:06 PM**	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. **N/A**	

If a Watercourse was Impacted, Describe Fully.*
N/A

RECEIVED
By Kellie Jones at 7:36 am, Feb 02, 2016

Describe Cause of Problem and Remedial Action Taken.*
A hole was discovered in the lay flat line which caused the produced water spill. The cause is unknown at this time. The water pumps were shut off, line pinchers were applied, and the damaged section of the line was replaced.

Describe Area Affected and Cleanup Action Taken.*
Five barrels of produced water were spilled mostly off the pad on the Northeast side of the well pad, approximately 10' x 130' and another area extending Northeast approximately 10' x 105'. A vacuum truck was able to recover three barrels of the produced water. An environmental company will be called to test the spill area when completions operations have moved off of location and they will create a remediation plan for submittal.

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: *Denise Menoud*	OIL CONSERVATION DIVISION Approved by Environmental Specialist:	
Printed Name: **Denise Menoud**		
Title: **Field Admin Support**	Approval Date: 02/02/2016	Expiration Date: 04/02/2016
E-mail Address: **Denise.Menoud@dvn.com**	Conditions of Approval: Site samples required. Delineate and remediate as per MNOCD guides. Geotag photographs of remediation recommended.	Attached ☐ 1RP-4124
Date: **2/1/2016** Phone: **575-746-5544**		

nKJ1603327792
pKJ1603328014

* Attach Additional Sheets If Necessary

Form C-141
Page 2

State of New Mexico
Oil Conservation Division

Incident ID	nKJ603327792
District RP	1RP-4124
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: Lupe Carrasco Title: Environmental Professional

Signature: Lupe Carrasco Date: 04/23/2020

email: Lupe.Carrasco@dvn.com Telephone: 575-748-0765

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nKJ603327792
District RP	1RP-4124
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?	370 (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	nKJ603327792
District RP	1RP-4124
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: Lupe Carrasco Title: Environmental Professional

Signature: Lupe Carrasco Date: 04/23/2020

email: Lupe.Carrasco@dvn.com Telephone: 575-748-0765

OCD Only

Received by: _____ Date: _____

Incident ID	nKJ603327792
District RP	1RP-4124
Facility ID	
Application ID	

Remediation Plan

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

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

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

☐ Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.

☐ Extents of contamination must be fully delineated.

☐ Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: _____ Title: _____

Signature: _____ Date: _____

email: _____ Telephone: _____

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nKJ603327792
District RP	1RP-4124
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: Lupe Carrasco Title: Environmental Professional

Signature: Lupe Carrasco Date: 04/23/2020

email: Lupe.Carrasco@dvn.com Telephone: 575-748-0765

OCD Only

Received by: _____ Date: _____

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

Closure Approved by: Jennifer Nobui Date: 01/19/2022

Printed Name: Jennifer Nobui Title: Environmental Specialist A

North Thistle 2 State 1H

5 BBLS PW 1.29.16

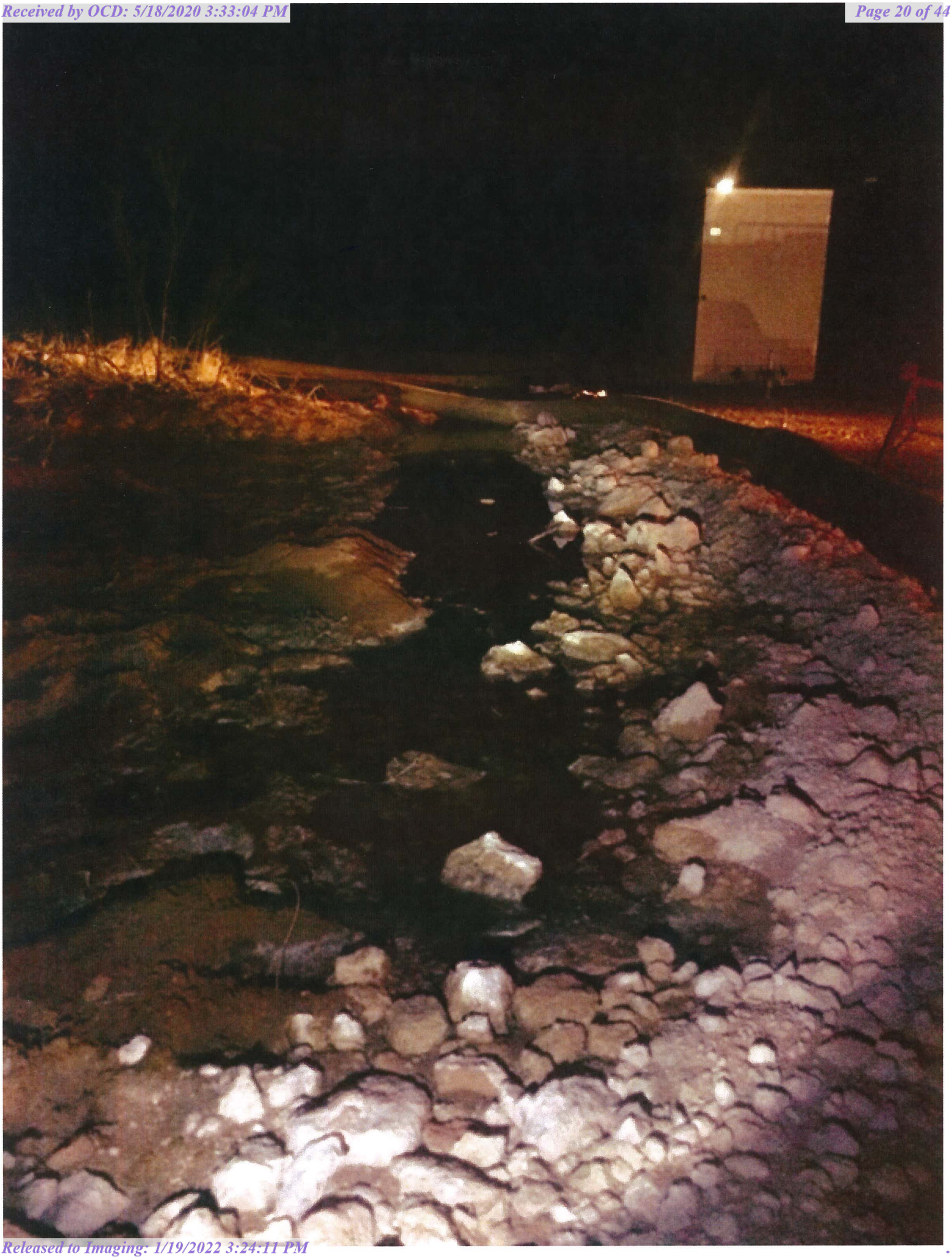
devon

This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere
Prepared by: D Menoud
Map is current as of: 01-Feb-2016

N

Miles
0 0.02 0.04 0.07 1:3,557



APPENDIX B

NMOSE WELLS REPORT AND CALCULATED DEPTH TO GROUNDWATER

New Mexico Office of the State Engineer

Water Column/Average Depth to Water

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

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

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

POD Number	Code	POD Sub-basin	County	Q 64	Q 16	Q 4	Sec	Twws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 03582 POD1		C	LE	4	1	1	14	23S	33E	636583	3575666	3419	590		
CP 01130 POD1		CP	LE	2	1	2	07	23S	34E	640662	3577558	3674	27		
CP 01130 POD2		CP	LE	2	1	2	07	23S	34E	640674	3577549	3689	27		
CP 00872 POD1		CP	LE	1	1	1	08	23S	34E	641225	3577504*	4216	494	305	189
CP 01502 POD1		CP	LE	4	3	3	05	23S	34E	641316	3577635	4257	648	200	448
CP 01075 POD1		CP	LE	1	1	1	08	23S	34E	641278	3577525	4258	430	20	410
CP 01502 POD2		CP	LE	4	3	3	05	23S	34E	642074	3577676	4969	680	300	380

Average Depth to Water: **206 feet**

Minimum Depth: **20 feet**

Maximum Depth: **305 feet**

Record Count: 7

UTMNAD83 Radius Search (in meters):

Easting (X): 637287.506 **Northing (Y):** 3579012.905 **Radius:** 5000

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

3/31/20 4:13 PM

WATER COLUMN/ AVERAGE DEPTH TO WATER

Depth To Groundwater			Calculations		
Location Elevation (ft):	3520				
Well Name	Well Elevation (ft)	Well Depth to GW	Adjusted elevation	Adjusted Depth to GW	Notes
CP-00872 POD1	3455	305	3150	370	
CP-01502 POD1	3454	200	3254	266	
CP-01075 POD1	3454	20	3434	86	
CP-01502 POD2	3443	680	2763	757	
Total # of Wells	4			1479	

Average Depth to Groundwater:	369.75

APPENDIX C

LABORATORY ANALYTICAL REPORTS

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 13, 2020

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

RE: North Thistle 2 State 001 OrderNo.: 2004185

Dear Ashley Maxwell:

Hall Environmental Analysis Laboratory received 9 sample(s) on 4/4/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW1
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:20:00 PM
Lab ID: 2004185-001 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	61		mg/Kg	20	4/6/2020 10:54:01 PM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/6/2020 5:57:04 PM	51564
Surr: BFB	101	70-130		%Rec	1	4/6/2020 5:57:04 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/8/2020 12:29:51 AM	51569
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/8/2020 12:29:51 AM	51569
Surr: DNOP	101	55.1-146		%Rec	1	4/8/2020 12:29:51 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/6/2020 5:57:04 PM	51564
Toluene	ND	0.049		mg/Kg	1	4/6/2020 5:57:04 PM	51564
Ethylbenzene	ND	0.049		mg/Kg	1	4/6/2020 5:57:04 PM	51564
Xylenes, Total	ND	0.098		mg/Kg	1	4/6/2020 5:57:04 PM	51564
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/6/2020 5:57:04 PM	51564
Surr: 4-Bromofluorobenzene	97.6	70-130		%Rec	1	4/6/2020 5:57:04 PM	51564
Surr: Dibromofluoromethane	100	70-130		%Rec	1	4/6/2020 5:57:04 PM	51564
Surr: Toluene-d8	96.5	70-130		%Rec	1	4/6/2020 5:57:04 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW2
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:22:00 PM
Lab ID: 2004185-002 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2020 11:31:02 PM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2020 7:22:26 PM	51564
Surr: BFB	100	70-130		%Rec	1	4/6/2020 7:22:26 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.1		mg/Kg	1	4/8/2020 1:41:34 AM	51569
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/8/2020 1:41:34 AM	51569
Surr: DNOP	107	55.1-146		%Rec	1	4/8/2020 1:41:34 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/6/2020 7:22:26 PM	51564
Toluene	ND	0.050		mg/Kg	1	4/6/2020 7:22:26 PM	51564
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2020 7:22:26 PM	51564
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2020 7:22:26 PM	51564
Surr: 1,2-Dichloroethane-d4	98.2	70-130		%Rec	1	4/6/2020 7:22:26 PM	51564
Surr: 4-Bromofluorobenzene	98.7	70-130		%Rec	1	4/6/2020 7:22:26 PM	51564
Surr: Dibromofluoromethane	98.7	70-130		%Rec	1	4/6/2020 7:22:26 PM	51564
Surr: Toluene-d8	96.5	70-130		%Rec	1	4/6/2020 7:22:26 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** SW3
Project: North Thistle 2 State 001 **Collection Date:** 4/2/2020 1:26:00 PM
Lab ID: 2004185-003 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/6/2020 11:43:23 PM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/6/2020 8:48:03 PM	51564
Surr: BFB	99.0	70-130		%Rec	1	4/6/2020 8:48:03 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/8/2020 2:05:21 AM	51569
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/8/2020 2:05:21 AM	51569
Surr: DNOP	87.6	55.1-146		%Rec	1	4/8/2020 2:05:21 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/6/2020 8:48:03 PM	51564
Toluene	ND	0.049		mg/Kg	1	4/6/2020 8:48:03 PM	51564
Ethylbenzene	ND	0.049		mg/Kg	1	4/6/2020 8:48:03 PM	51564
Xylenes, Total	ND	0.098		mg/Kg	1	4/6/2020 8:48:03 PM	51564
Surr: 1,2-Dichloroethane-d4	98.3	70-130		%Rec	1	4/6/2020 8:48:03 PM	51564
Surr: 4-Bromofluorobenzene	96.9	70-130		%Rec	1	4/6/2020 8:48:03 PM	51564
Surr: Dibromofluoromethane	100	70-130		%Rec	1	4/6/2020 8:48:03 PM	51564
Surr: Toluene-d8	96.3	70-130		%Rec	1	4/6/2020 8:48:03 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: SW4
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:30:00 PM
Lab ID: 2004185-004 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	110	60		mg/Kg	20	4/6/2020 11:55:44 PM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2020 9:16:50 PM	51564
Surr: BFB	102	70-130		%Rec	1	4/6/2020 9:16:50 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	4/8/2020 2:29:08 AM	51569
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/8/2020 2:29:08 AM	51569
Surr: DNOP	104	55.1-146		%Rec	1	4/8/2020 2:29:08 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/6/2020 9:16:50 PM	51564
Toluene	ND	0.050		mg/Kg	1	4/6/2020 9:16:50 PM	51564
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2020 9:16:50 PM	51564
Xylenes, Total	ND	0.099		mg/Kg	1	4/6/2020 9:16:50 PM	51564
Surr: 1,2-Dichloroethane-d4	91.2	70-130		%Rec	1	4/6/2020 9:16:50 PM	51564
Surr: 4-Bromofluorobenzene	96.8	70-130		%Rec	1	4/6/2020 9:16:50 PM	51564
Surr: Dibromofluoromethane	99.9	70-130		%Rec	1	4/6/2020 9:16:50 PM	51564
Surr: Toluene-d8	100	70-130		%Rec	1	4/6/2020 9:16:50 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S1
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:45:00 PM
Lab ID: 2004185-005 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 12:08:04 AM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/6/2020 9:45:40 PM	51564
Surr: BFB	100	70-130		%Rec	1	4/6/2020 9:45:40 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/8/2020 2:52:53 AM	51569
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/8/2020 2:52:53 AM	51569
Surr: DNOP	94.9	55.1-146		%Rec	1	4/8/2020 2:52:53 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/6/2020 9:45:40 PM	51564
Toluene	ND	0.049		mg/Kg	1	4/6/2020 9:45:40 PM	51564
Ethylbenzene	ND	0.049		mg/Kg	1	4/6/2020 9:45:40 PM	51564
Xylenes, Total	ND	0.098		mg/Kg	1	4/6/2020 9:45:40 PM	51564
Surr: 1,2-Dichloroethane-d4	99.6	70-130		%Rec	1	4/6/2020 9:45:40 PM	51564
Surr: 4-Bromofluorobenzene	94.0	70-130		%Rec	1	4/6/2020 9:45:40 PM	51564
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/6/2020 9:45:40 PM	51564
Surr: Toluene-d8	97.4	70-130		%Rec	1	4/6/2020 9:45:40 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S2
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:45:00 PM
Lab ID: 2004185-006 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	ND	60		mg/Kg	20	4/7/2020 12:45:04 AM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/6/2020 10:14:27 PM	51564
Surr: BFB	98.7	70-130		%Rec	1	4/6/2020 10:14:27 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/8/2020 3:16:38 AM	51569
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	4/8/2020 3:16:38 AM	51569
Surr: DNOP	90.6	55.1-146		%Rec	1	4/8/2020 3:16:38 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/6/2020 10:14:27 PM	51564
Toluene	ND	0.049		mg/Kg	1	4/6/2020 10:14:27 PM	51564
Ethylbenzene	ND	0.049		mg/Kg	1	4/6/2020 10:14:27 PM	51564
Xylenes, Total	ND	0.099		mg/Kg	1	4/6/2020 10:14:27 PM	51564
Surr: 1,2-Dichloroethane-d4	99.7	70-130		%Rec	1	4/6/2020 10:14:27 PM	51564
Surr: 4-Bromofluorobenzene	93.4	70-130		%Rec	1	4/6/2020 10:14:27 PM	51564
Surr: Dibromofluoromethane	104	70-130		%Rec	1	4/6/2020 10:14:27 PM	51564
Surr: Toluene-d8	97.1	70-130		%Rec	1	4/6/2020 10:14:27 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S3
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:47:00 PM
Lab ID: 2004185-007 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	120	60		mg/Kg	20	4/7/2020 12:57:24 AM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/6/2020 10:43:11 PM	51564
Surr: BFB	102	70-130		%Rec	1	4/6/2020 10:43:11 PM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	4/8/2020 3:40:21 AM	51569
Motor Oil Range Organics (MRO)	ND	51		mg/Kg	1	4/8/2020 3:40:21 AM	51569
Surr: DNOP	86.0	55.1-146		%Rec	1	4/8/2020 3:40:21 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/6/2020 10:43:11 PM	51564
Toluene	ND	0.050		mg/Kg	1	4/6/2020 10:43:11 PM	51564
Ethylbenzene	ND	0.050		mg/Kg	1	4/6/2020 10:43:11 PM	51564
Xylenes, Total	ND	0.10		mg/Kg	1	4/6/2020 10:43:11 PM	51564
Surr: 1,2-Dichloroethane-d4	102	70-130		%Rec	1	4/6/2020 10:43:11 PM	51564
Surr: 4-Bromofluorobenzene	101	70-130		%Rec	1	4/6/2020 10:43:11 PM	51564
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/6/2020 10:43:11 PM	51564
Surr: Toluene-d8	101	70-130		%Rec	1	4/6/2020 10:43:11 PM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates
Client Sample ID: S4
Project: North Thistle 2 State 001
Collection Date: 4/2/2020 1:48:00 PM
Lab ID: 2004185-008 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **JMT**	
Chloride	65	60		mg/Kg	20	4/7/2020 1:09:44 AM	51590
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/7/2020 1:35:41 AM	51564
Surr: BFB	99.4	70-130		%Rec	1	4/7/2020 1:35:41 AM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/8/2020 4:04:05 AM	51569
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/8/2020 4:04:05 AM	51569
Surr: DNOP	87.1	55.1-146		%Rec	1	4/8/2020 4:04:05 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.025		mg/Kg	1	4/7/2020 1:35:41 AM	51564
Toluene	ND	0.050		mg/Kg	1	4/7/2020 1:35:41 AM	51564
Ethylbenzene	ND	0.050		mg/Kg	1	4/7/2020 1:35:41 AM	51564
Xylenes, Total	ND	0.10		mg/Kg	1	4/7/2020 1:35:41 AM	51564
Surr: 1,2-Dichloroethane-d4	101	70-130		%Rec	1	4/7/2020 1:35:41 AM	51564
Surr: 4-Bromofluorobenzene	94.8	70-130		%Rec	1	4/7/2020 1:35:41 AM	51564
Surr: Dibromofluoromethane	103	70-130		%Rec	1	4/7/2020 1:35:41 AM	51564
Surr: Toluene-d8	103	70-130		%Rec	1	4/7/2020 1:35:41 AM	51564

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

Qualifiers:

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

Analytical Report
Lab Order **2004185**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Souder, Miller & Associates **Client Sample ID:** C6
Project: North Thistle 2 State 001 **Collection Date:** 4/2/2020 12:58:00 PM
Lab ID: 2004185-009 **Matrix:** SOIL **Received Date:** 4/4/2020 8:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed	Batch
EPA METHOD 300.0: ANIONS						Analyst: **MRA**	
Chloride	ND	60		mg/Kg	20	4/7/2020 12:41:25 PM	51611
EPA METHOD 8015D MOD: GASOLINE RANGE						Analyst: **JMR**	
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/7/2020 2:04:31 AM	51564
Surr: BFB	99.5	70-130		%Rec	1	4/7/2020 2:04:31 AM	51564
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**	
Diesel Range Organics (DRO)	ND	8.5		mg/Kg	1	4/8/2020 4:27:44 AM	51569
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	4/8/2020 4:27:44 AM	51569
Surr: DNOP	92.1	55.1-146		%Rec	1	4/8/2020 4:27:44 AM	51569
EPA METHOD 8260B: VOLATILES SHORT LIST						Analyst: **JMR**	
Benzene	ND	0.024		mg/Kg	1	4/7/2020 2:04:31 AM	51564
Toluene	ND	0.049		mg/Kg	1	4/7/2020 2:04:31 AM	51564
Ethylbenzene	ND	0.049		mg/Kg	1	4/7/2020 2:04:31 AM	51564
Xylenes, Total	ND	0.097		mg/Kg	1	4/7/2020 2:04:31 AM	51564
Surr: 1,2-Dichloroethane-d4	96.0	70-130		%Rec	1	4/7/2020 2:04:31 AM	51564
Surr: 4-Bromofluorobenzene	97.0	70-130		%Rec	1	4/7/2020 2:04:31 AM	51564
Surr: Dibromofluoromethane	101	70-130		%Rec	1	4/7/2020 2:04:31 AM	51564
Surr: Toluene-d8	97.8	70-130		%Rec	1	4/7/2020 2:04:31 AM	51564

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

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004185**

13-Apr-20

Client: Souder, Miller & Associates

Project: North Thistle 2 State 001

Sample ID: **MB-51590** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51590** RunNo: **67894**

Prep Date: **4/6/2020** Analysis Date: **4/6/2020** SeqNo: **2345638** Units: **mg/Kg**

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

Sample ID: **LCS-51590** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51590** RunNo: **67894**

Prep Date: **4/6/2020** Analysis Date: **4/6/2020** SeqNo: **2345639** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.0	90	110			

Sample ID: **MB-51611** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **51611** RunNo: **67907**

Prep Date: **4/7/2020** Analysis Date: **4/7/2020** SeqNo: **2347333** Units: **mg/Kg**

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

Sample ID: **LCS-51611** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **51611** RunNo: **67907**

Prep Date: **4/7/2020** Analysis Date: **4/7/2020** SeqNo: **2347334** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	90.2	90	110			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004185**
13-Apr-20

Client: Souder, Miller & Associates
Project: North Thistle 2 State 001

Sample ID: **MB-51569** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **51569** RunNo: **67895**
Prep Date: **4/5/2020** Analysis Date: **4/7/2020** SeqNo: **2347143** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	10								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.3	55.1	146			

Sample ID: **LCS-51569** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **51569** RunNo: **67895**
Prep Date: **4/5/2020** Analysis Date: **4/8/2020** SeqNo: **2347144** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	47	10	50.00	0	94.3	70	130			
Surr: DNOP	4.5		5.000		90.0	55.1	146			

Sample ID: **2004185-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW1** Batch ID: **51569** RunNo: **67895**
Prep Date: **4/5/2020** Analysis Date: **4/8/2020** SeqNo: **2347173** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	46	9.7	48.64	0	93.8	47.4	136			
Surr: DNOP	4.5		4.864		92.2	55.1	146			

Sample ID: **2004185-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **SW1** Batch ID: **51569** RunNo: **67895**
Prep Date: **4/5/2020** Analysis Date: **4/8/2020** SeqNo: **2347182** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.4	47.08	0	96.6	47.4	136	0.363	43.4	
Surr: DNOP	4.5		4.708		96.4	55.1	146	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004185**
13-Apr-20

Client: Souder, Miller & Associates
Project: North Thistle 2 State 001

Sample ID: **2004185-001ams** SampType: **MS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SW1** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346335** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	0.9980	0	87.9	70	130			
Toluene	0.98	0.050	0.9980	0	98.5	70	130			
Ethylbenzene	0.95	0.050	0.9980	0	95.6	70	130			
Xylenes, Total	2.9	0.10	2.994	0	96.4	70	130			
Surr: 1,2-Dichloroethane-d4	0.49		0.4990		98.7	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.4990		95.3	70	130			
Surr: Dibromofluoromethane	0.50		0.4990		99.8	70	130			
Surr: Toluene-d8	0.50		0.4990		100	70	130			

Sample ID: **2004185-001amsd** SampType: **MSD** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **SW1** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346336** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	0.9804	0	89.8	70	130	0.357	20	
Toluene	0.99	0.049	0.9804	0	101	70	130	1.15	20	
Ethylbenzene	1.0	0.049	0.9804	0	103	70	130	5.32	0	
Xylenes, Total	3.1	0.098	2.941	0	104	70	130	6.04	0	
Surr: 1,2-Dichloroethane-d4	0.48		0.4902		98.2	70	130	0	0	
Surr: 4-Bromofluorobenzene	0.49		0.4902		100	70	130	0	0	
Surr: Dibromofluoromethane	0.49		0.4902		99.3	70	130	0	0	
Surr: Toluene-d8	0.49		0.4902		100	70	130	0	0	

Sample ID: **lcs-51564** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346362** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	88.3	70	130			
Toluene	0.99	0.050	1.000	0	99.0	70	130			
Ethylbenzene	0.96	0.050	1.000	0	96.2	70	130			
Xylenes, Total	2.9	0.10	3.000	0	97.9	70	130			
Surr: 1,2-Dichloroethane-d4	0.48		0.5000		96.2	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		98.0	70	130			
Surr: Dibromofluoromethane	0.48		0.5000		96.4	70	130			
Surr: Toluene-d8	0.49		0.5000		97.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004185**
13-Apr-20

Client: Souder, Miller & Associates
Project: North Thistle 2 State 001

Sample ID: **mb-51564** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346364** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		98.4	70	130			
Surr: 4-Bromofluorobenzene	0.48		0.5000		96.3	70	130			
Surr: Dibromofluoromethane	0.50		0.5000		99.1	70	130			
Surr: Toluene-d8	0.49		0.5000		98.3	70	130			

Sample ID: **lcs-51579** SampType: **LCS** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **LCSS** Batch ID: **51579** RunNo: **67951**
Prep Date: **4/6/2020** Analysis Date: **4/8/2020** SeqNo: **2348738** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.47		0.5000		94.9	70	130			
Surr: 4-Bromofluorobenzene	0.47		0.5000		94.0	70	130			
Surr: Dibromofluoromethane	0.47		0.5000		94.4	70	130			
Surr: Toluene-d8	0.46		0.5000		91.1	70	130			

Sample ID: **mb-51579** SampType: **MBLK** TestCode: **EPA Method 8260B: Volatiles Short List**
Client ID: **PBS** Batch ID: **51579** RunNo: **67951**
Prep Date: **4/6/2020** Analysis Date: **4/8/2020** SeqNo: **2348739** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 1,2-Dichloroethane-d4	0.49		0.5000		99.0	70	130			
Surr: 4-Bromofluorobenzene	0.49		0.5000		97.7	70	130			
Surr: Dibromofluoromethane	0.51		0.5000		102	70	130			
Surr: Toluene-d8	0.47		0.5000		94.3	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 Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2004185**
13-Apr-20

Client: Souder, Miller & Associates
Project: North Thistle 2 State 001

Sample ID: **2004185-002ams** SampType: **MS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SW2** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346375** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.58	0	84.8	70	130			
Surr: BFB	510		491.6		104	70	130			

Sample ID: **2004185-002amsd** SampType: **MSD** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **SW2** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346376** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	4.9	24.53	0	75.5	70	130	11.8	20	
Surr: BFB	470		490.7		95.5	70	130	0	0	

Sample ID: **lcs-51564** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346404** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	84.0	70	130			
Surr: BFB	490		500.0		97.7	70	130			

Sample ID: **mb-51564** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **51564** RunNo: **67912**
Prep Date: **4/4/2020** Analysis Date: **4/6/2020** SeqNo: **2346406** 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	490		500.0		98.5	70	130			

Sample ID: **lcs-51579** SampType: **LCS** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **LCSS** Batch ID: **51579** RunNo: **67951**
Prep Date: **4/6/2020** Analysis Date: **4/8/2020** SeqNo: **2348764** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	500		500.0		100	70	130			

Sample ID: **mb-51579** SampType: **MBLK** TestCode: **EPA Method 8015D Mod: Gasoline Range**
Client ID: **PBS** Batch ID: **51579** RunNo: **67951**
Prep Date: **4/6/2020** Analysis Date: **4/8/2020** SeqNo: **2348765** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	510		500.0		101	70	130			

Qualifiers:

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

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

Sample Log-In Check List

Client Name: SMA-CARLSBAD Work Order Number: 2004185 RcptNo: 1

Received By: **Erin Melendrez** 4/4/2020 8:15:00 AM

Completed By: **Erin Melendrez** 4/4/2020 9:01:48 AM

Reviewed By: ENM 4/4/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
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: JP 04/04/20

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.1	Good				

Chain-of-Custody Record

Client: SMA

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

Phone #:

email or Fax#: ashley.maxwell@souder miller.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day
☑ Standard ☐ Rush

Project Name: North Thistle 2 State 001

Project #:

Project Manager: Ashley Maxwell

Sampler: SOV

On Ice: ☑ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.1-0(CF)=1.1 (°C)

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2004185	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)
4/2/20	1:20	Soil	SW1	(4oz)	Cool	-001										
	1:22		SW2			-002										
	1:26		SW3			-003										
	1:30		SW4			-004										
	1:45		S1			-005										
	1:45		S2			-006										
	1:47		S3			-007										
	1:48		S4			-008										
	12:58		C6			-009										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
4/3	1900	Jeloas Team Orozco			4/3	1230
4/3	1900			Courier	4/4/20	0815

Remarks:

Bill Devon WO#: 20847130

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

APPENDIX D
PHOTOLOG

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 8341

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 8341
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jnobui	None	1/19/2022