State of New Mexico
Oil Conservation Division

Incident ID	nAB1914252088
District RP	2RP-5435
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.***

[x] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[X] 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

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

[x] Description of remediation activities

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

Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 5/10/2023

email: dale.woodall@dvn.com Telephone: 405-318-4697

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: _____

Form C-141
Page 6

State of New Mexico
Oil Conservation Division

Incident ID	nAB1914252088
District RP	2RP-5435
Facility ID	
Application ID	

Closure

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Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 5/10/2023

email: dale.woodall@dvn.com Telephone: 405-318-4697

OCD Only

Received by: Robert Hamlet Date: 10/2/2023

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

Closure Approved by: Robert Hamlet Date: 10/2/2023

Printed Name: Robert Hamlet Title: Environmental Specialist - Advanced

August 19, 2019 Vertex Project #: 19E-00575-016

Spill Closure Report: Apache 25 Federal #003 (Unit Letter "A", Section 25, Township 22 South, Range 30 East)
API: 30-015-32719
County: Eddy
Incident Report: 2RP-5435

Prepared For: **Devon Energy Corporation**
6488 Seven Rivers Highway
Artesia, New Mexico 88210

New Mexico Oil Conservation Division – District 2 – Artesia
811 South First Street
Artesia, New Mexico 88210

Devon Energy Corporation retained Vertex Resource Services Inc. (Vertex) to conduct a Spill Assessment for a produced water and crude oil release caused by a mechanical malfunction on Apache 25 Federal #003, API 30-015-32719, Incident 2RP-5435 (hereafter referred to as "site"). This letter provides a description of the Spill Assessment and includes a request for Spill Closure. The spill area is located at N 32.3684883, W -103.8266678.

Background

The site is located approximately 30 miles east of Carlsbad, New Mexico on Bureau of Land Management (BLM) property. The legal description for the site is Unit Letter "A", Section 25, Township 22 South, Range 30 East in Eddy County, New Mexico. An aerial photograph and site schematic are included in Attachment 1.

The Geological Map of New Mexico (New Mexico Bureau of Geology and Mineral Resources, 2014 – 2017) indicates the site's surface geology is comprised primarily of Qep—Eolian and piedmont deposits (Holocene to middle Pleistocene), and is characterized as interlayed eolian sands and piedmont-slope deposits. Predominant soil texture on the site is fine sand over a sandy clay loam and the area tends to be well-drained with low runoff.

Incident Description

The spill occurred on May 9, 2019, due to a test heater releasing fluid from the vic clamp. Approximately 3.83 barrels (bbls) of produced water and 3.83 bbls of crude oil were released into unlined containment and off-pad. Approximately 3 bbls of free fluid were removed during initial spill clean-up. The incident was reported on May 14, 2019 to the New Mexico Oil Conservation Division (NM OCD) and the incident received RP number 2RP-5435. The initial C-141 Notification Report is included in Attachment 2. Daily Field Reports (DFRs) and site photographs are included in Attachment 3.

Closure Criteria Determination

Depth to groundwater was determined using information from Oil and Gas Drilling records and the New Mexico Office of the State Engineer Water Column/Average Depth to Water report. A 5,000-meter search radius was used to determine groundwater depth. The shallowest recorded depth to groundwater was determined to be 413 feet below ground surface (bgs) at 2,014 feet from the site. Documentation used in Closure Criteria Determination research is included in Attachment 4.

Table 1.			
Site Name: Apache 25 Federal 003 Battery			
Spill Coordinates:		**X: 32.36850**	**Y: -103.82670**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater	**413**	feet
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3311	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	6345	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	13, 376	feet
5	i) Within 500 feet of a spring or a private, domestic fresh water well used by less than five households for domestic or stock watering purposes, **or**	2014	feet
	ii) Within 1000 feet of any fresh water well or spring	2014	feet
6	Within incorporated municipal boundaries or within a defined municipal fresh water field covered under a municipal ordinance adopted pursuant to Section 3-27-3 NMSA 1978 as amended, unless the municipality specifically approves	No	(Y/N)
7	Within 300 feet of a wetland	26800	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
10	Within a 100-year Floodplain	500	year
NMAC 19.15.29.12 E (Table 1) Closure Criteria		>100'	<50' 51-100' >100'

The closure criteria determined for the site are associated with the following constituent concentration limits as identified in 19.15.29.12 New Mexico Administrative Code (NMAC) and presented in Table 2.

Table 2. Closure Criteria for Soils Impacted by a Release		
Minimum depth below any point within the horizontal boundary of the release to groundwater less than 10,000 mg/l TDS	**Constituent**	**Limit**
> 100 feet	Chloride	20,000 mg/kg
	TPH (GRO+DRO+MRO)	2,500 mg/kg
	GRO+DRO	1,000 mg/kg
	BTEX	50 mg/kg
	Benzene	10 mg/kg

Remedial Actions Taken

An initial site inspection of the release area, completed on June 20, 2019, identified the area of the spill specified in the initial C-141 Report, estimated the approximate volume of the spill and white lined the area required for the 811 One Call request. The largest impacted area was determined to be approximately 143 feet long and 101 feet wide; the total affected area was determined to be 6,033 square feet. The DFR associated with the site inspection is included in Attachment 3.

Remediation efforts began on July 8 and were completed on July 24, 2019. Vertex personnel supervised the excavation of impacted soils and field screening, consisting of analysis using a Photo Ionization Detector (volatile hydrocarbons), Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and Quantabs (chlorides), was completed on a total of 19 samples. Field screening results were used to differentiate areas requiring further remediation from those areas showing concentrations below determined closure criteria levels. Soils were removed at depths up to 3.5 feet bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility. Waste Manifests are presented in Attachment 5. Field screening results are presented in Attachment 6, as well as in DFRs in Attachment 3.

Notification that confirmatory samples were being collected was provided to the NMOCD on July 8, 2019 (Attachment 7). Confirmatory five-point composite samples were collected from the base and walls of the excavation such that no composite sample was representative of more than 200 square feet per the alternate sampling method outlined in Subparagraph (c) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC. A total of nineteen (19) samples, including two (2) background samples, were collected for laboratory analysis following NM OCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis Laboratory under chain-of-custody protocols and analyzed using Method 300.0/9056A for chlorides, Method 8021B for volatile organics, including Benzene, Toluene, Ethyl benzene and Xylene (BTEX), and EPA Method 8015D for total petroleum hydrocarbons (TPH), including Motor Oil Range Organics (MRO), Diesel Range Organics (DRO), and Gasoline Range Organics (GRO). Laboratory results are presented in Table 3, Attachment 6 and the complete laboratory data report and chain of custody documentation can be found in Attachment 8. All confirmatory samples collected and analyzed were below closure criteria for the site.

Closure Request

The spill area was fully delineated, remediated and backfilled with local soils by July 24, 2019. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per Table I of 19.15.29.12 NMAC – Closure Criteria for Soils Impacted by a Release for locations greater than 100 feet to groundwater. Based on these

findings, Devon Energy Corporation requests that this release incident be closed.

Should you have any questions or concerns, please do not hesitate to contact the undersigned at 575.361.1137 or dwilliams@vertex.ca.

Sincerely,

Dennis Williams
ENVIRONMENTAL EARTHWORKS ADVISOR

Attachments

Attachment 1. Site Schematic
Attachment 2. NM OCD C-141 Report
Attachment 3. Daily Field Report(s) with Pictures
Attachment 4. Closure Criteria for Soils Impacted by a Release Research Determination Documentation
Attachment 5. Waste Manifest(s)
Attachment 6. Table 3 - Laboratory Results Table
Attachment 7. Confirmatory Samples and Liner Inspection Notification to the NM OCD
Attachment 8. Laboratory Data Reports and COCs

References

Water Column/Average Depth to Water Report. New Mexico Water Rights Reporting System, (2019). Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/waterColumn.html

Assessed and Impaired Waters of New Mexico. New Mexico Department of Surface Water Quality Bureau, (2019). Retrieved from https://gis.web.env.nm.gov/oem/?map=swqb

Interactive Geologic Map. New Mexico Bureau of Geology and Mineral Resources, (2019). Retrieved from http://geoinfo.nmt.edu

Measured Distance from the Subject Site to Residence. Google Earth Pro, (2019). Retrieved from https://earth.google.com

Point of Diversion Location Report. New Mexico Water Rights Reporting System, (2019). Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/wellSurfaceDiversion.html

Measured Distance from the Subject Site to Municipal Boundaries. Google Earth Pro, (2019). Retrieved from https://earth.google.com

National Wetland Inventory Surface Waters and Wetland. United State Fish and Wildlife Service, (2019). Retrieved from https://www.fws.gov/wetlands/data/mapper.html

Coal Mine Resources in New Mexico. NM Mining and Minerals Division, (2019). Retrieved from http://www.emnrd.state.nm.us/MMD/gismapminedata.html

New Mexico Cave/Karsts. United States Department of the Interior, Bureau of Land Management, (2019) Retrieved from https://www.blm.gov/programs/recreation/recreation-programs/caves/new-mexico

Flood Map Number 35015C1875D. United States Department of Homeland Security, FEMA Flood Map Service Center, (2010). Retrieved from https://msc.fema.gov/portal/search?AddressQuery=malaga%20new%20mexico#searchresultsanchor

Well Log/Meter Information Report. NM Office of the State Engineer, New Mexico Water Rights Reporting System. (2019). Retrieved from http://nmwrrs.ose.state.nm.us/nmwrrs/meterReport.html

Natural Resources and Wildlife Oil and Gas Releases. New Mexico Oil Conservation Division, (2019). Santa Fe, New Mexico.

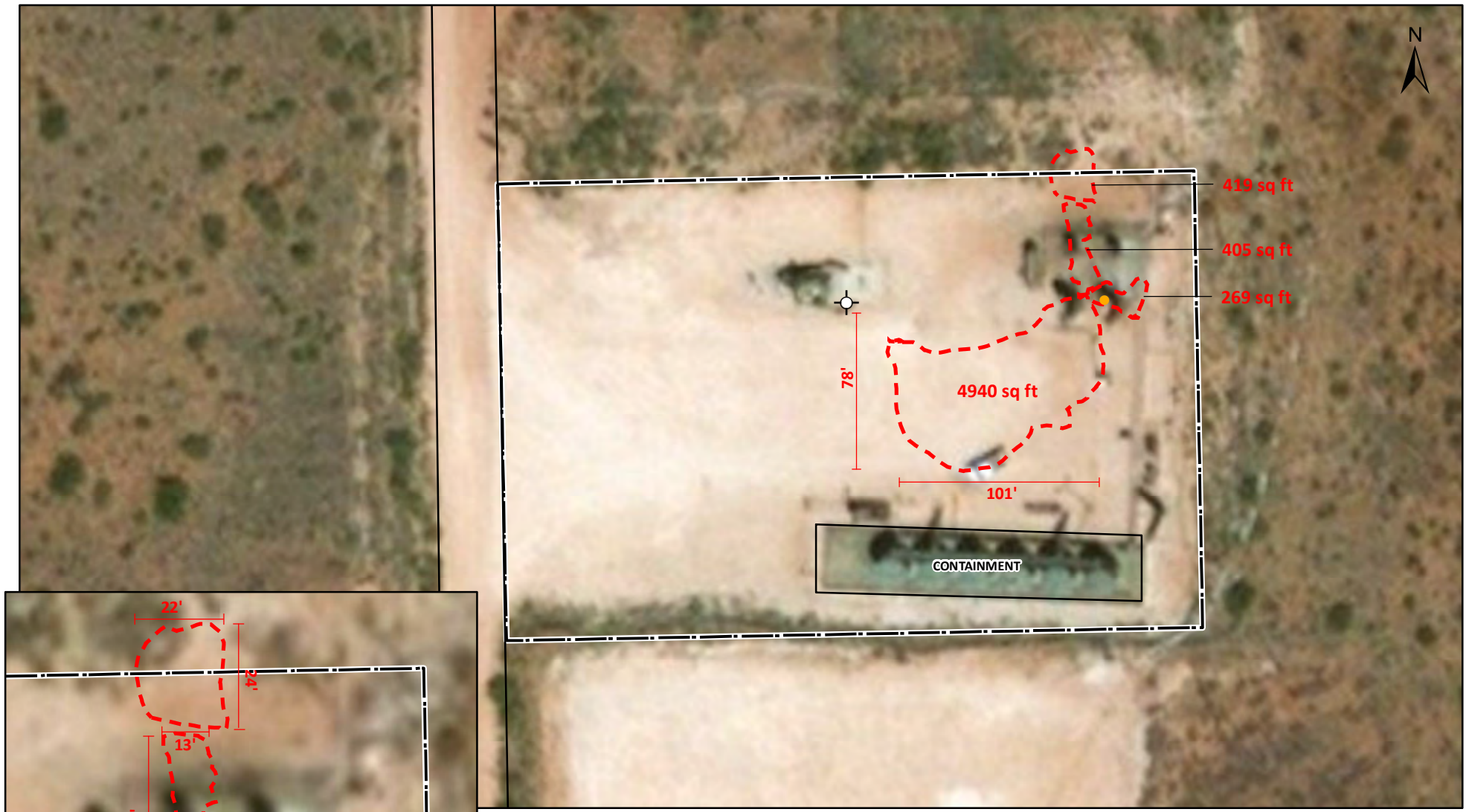
Soil Survey, New Mexico. United States Department of Agriculture, Soil Conservation Service in Cooperation with New Mexico Agricultural Experiment Station. (1971). Retrieved from http://www.wipp.energy.gov/library/Information_Repository_A/Supplemental_Information/Chugg%20et%20al%201971%20w-map.pdf

Limitations

This report has been prepared for the sole benefit of Devon Energy Corporation. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon Energy Corporation. Any use of this report by a third party, or any reliance on decisions made based on it, or damages suffered as a result of the use of this report are the sole responsibility of the user.

The information and conclusions contained in this report are based upon work undertaken by trained professional and technical staff in accordance with generally accepted scientific practices current at the time the work was performed. The conclusions and recommendations presented represent the best judgement of Vertex based on the data collected during the assessment. Due to the nature of the assessment and the data available, Vertex cannot warrant against undiscovered environmental liabilities. Conclusions and recommendations presented in this report should not be considered legal advice.

ATTACHMENT 1



LEGEND

- WELLHEAD
- RELEASE POINT
- ROAD
- WELL PAD
- SPILL

0 25 50 100 ft

SCALE 1:800

Notes: Aerial Image from ESRI Digital Globe 2016

devon

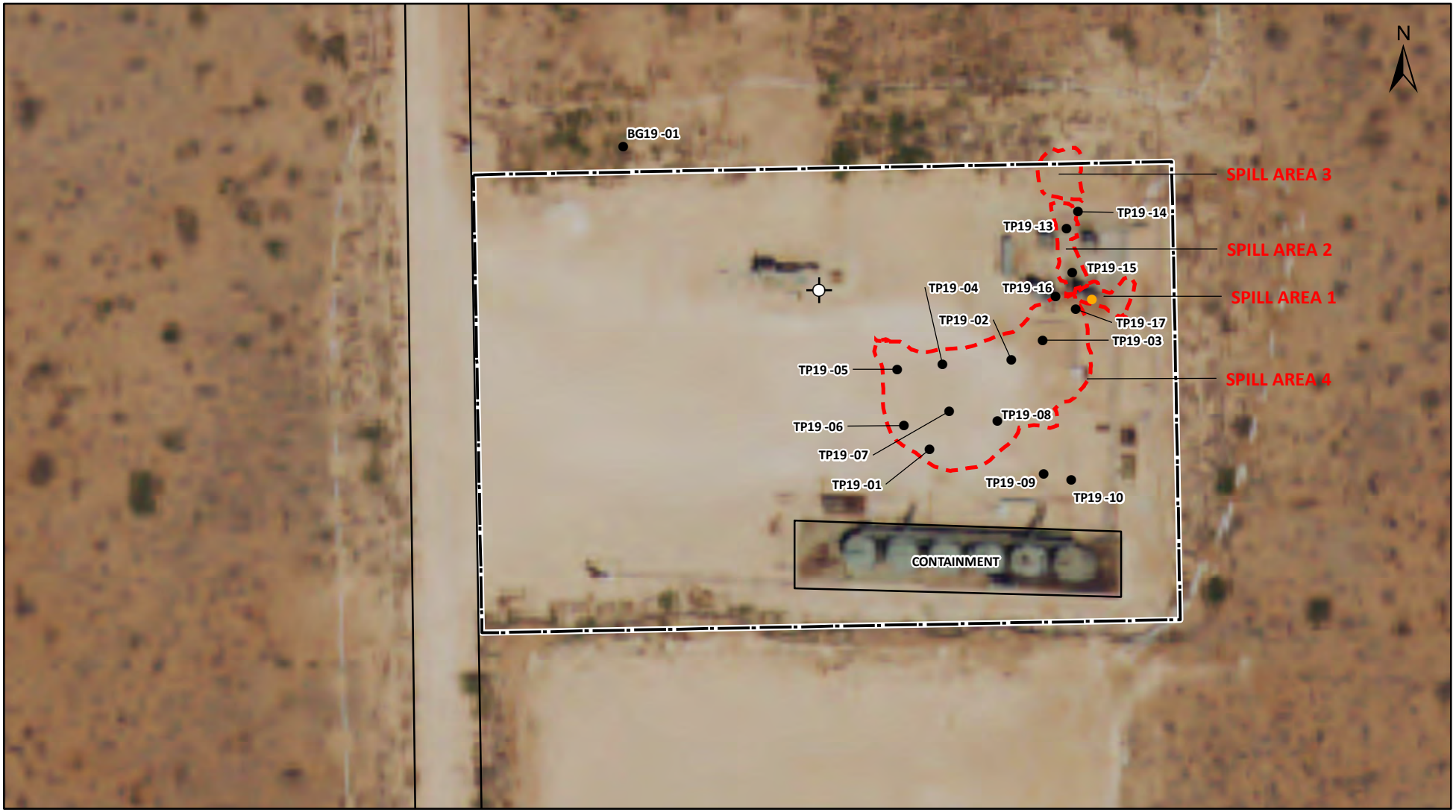
Site Schematic - Spill Area
Apache 25 Federal
#003

VERTEX

DRAWN:	NM
APPROVED:	RF
DATE:	JUN 24/19

FIGURE: 1

VERSATILITY. EXPERTISE.



LEGEND

- SOIL SAMPLE
- WELLHEAD
- RELEASE POINT
- ROAD
- WELL PAD
- SPILL AREA
  - AREA 1 - 269 SQFT (18' X 27')
  - AREA 2 - 405 SQFT (41' X 13')
  - AREA 3 - 419 SQFT (24' X 22')
  - AREA 4 - 4940 SQFT (78' X 10')

0 25 50 100 ft

SCALE 1:800

Notes: Aerial Image from USDA NAIP 2018

devon

Site Schematic - Confirmatory Samples Apache 25 Federal #003

VERTEX

DRAWN:	NM
APPROVED:	RF
DATE:	JUL 24/19

FIGURE: 2

VERSATILITY. EXPERTISE.

ATTACHMENT 2

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	
Facility ID	
Application ID	

Release Notification

Responsible Party

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

Location of Release Source

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

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

Unit Letter	Section	Township	Range	County

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

Nature and Volume of Release

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

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

State of New Mexico
Oil Conservation Division

Incident ID	
District RP	
Facility ID	
Application ID	

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

Initial Response

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

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

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

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

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

Printed Name: _____ Title: _____

Signature: Kendra DeHoyos Date: _____

email: _____ Telephone: _____

OCD Only

Received by: Jocelyn Buttemente Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAB1914252088
District RP	2RP-5435
Facility ID	
Application ID	

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Printed Name: Dale Woodall Title: EHS Professional

Signature: Dale Woodall Date: 5/10/2023

email: dale.woodall@dvn.com Telephone: 405-318-4697

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: _____

ATTACHMENT 3

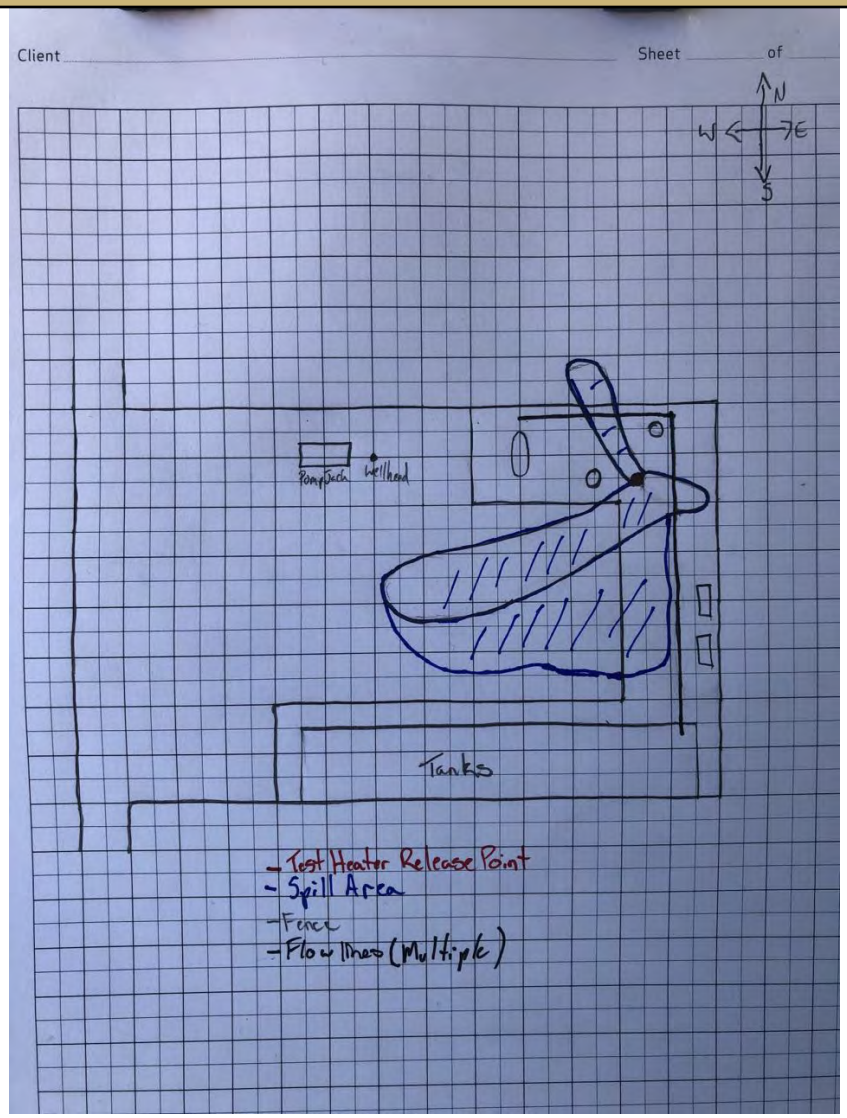
Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	6/20/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	6/20/2019 6:50 PM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	6/20/2019 7:15 AM
Arrived at Site	6/20/2019 8:19 AM
Departed Site	6/20/2019 10:33 AM
Returned to Office	6/20/2019 12:40 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

8:35 Arrive on site and complete all safety paperwork and arrival form.

Next Steps & Recommendations

1 Complete research.

2 Get maps created.

3 Write work plan.

4 Complete cleanup and sampling.

5 Write closure report for client and NMOCD

6 Close file.

Daily Site Visit Report

Site Photos

Viewing Direction: East	**Viewing Direction**: North
	
Overview of site	Spill area to east
Viewing Direction: North	**Viewing Direction**: North
	
Spill area to the north	Spill area offsite

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Northeast
	
Overview of spill area	Overview of spill area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Robyn Fisher

Signature: 

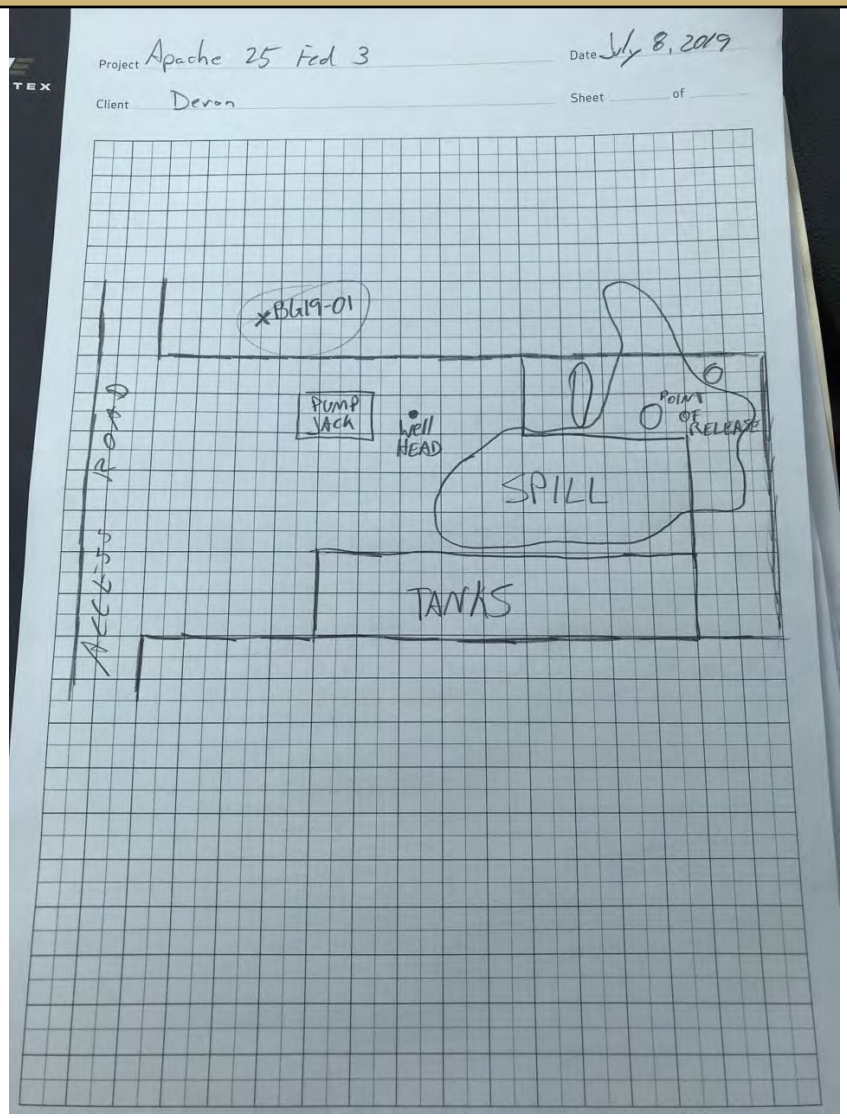
Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	7/8/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/8/2019 7:14 PM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	7/8/2019 7:15 AM
Arrived at Site	7/8/2019 8:05 AM
Departed Site	7/8/2019 11:32 AM
Returned to Office	7/8/2019 12:41 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

8:05 Arrive on site.
Complete safety paperwork.
Take background samples and field screen.
Complete DFR.
Return to office.

Next Steps & Recommendations

1 Begin excavation of spill

2 Field screen

3 Send samples to lab

4 Confirm results meet site criteria

5 Backfill

Sampling

BG19-01

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0 ft.	1.1 ppm	47 ppm	Low (30-600 ppm)	42 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36868973, -103.82698189	Yes
2 ft.	0.6 ppm	48 ppm	Low (30-600 ppm)	241 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36868973, -103.82698189	Yes

Daily Site Visit Report

Site Photos

Viewing Direction: East	**Viewing Direction**: Northeast
	
Spill area into open pad	Spill area into open pad
Viewing Direction: North	**Viewing Direction**: Northwest
	
Spill area inside production area	Spill area inside production area

Daily Site Visit Report

Viewing Direction: West	**Viewing Direction**: North
	
Spill area inside production area	Spill area inside production area
Viewing Direction: North	**Viewing Direction**: Southwest
	
Spill area off lease	Spill area inside production area

Daily Site Visit Report

Viewing Direction: South	**Viewing Direction**: South
	
Spill area inside production area	Spill area inside production area
Viewing Direction: East	**Viewing Direction**: Northeast
	
Spill area inside production area	Spill area on open pad

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Northeast
	
Spill area on open pad	Spill area onto open pad
Viewing Direction: North	**Viewing Direction**: Southeast
	
Spill area near point of release	Spill area near point of release

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: BG19-01	**Sample Point ID**: BG19-01
	
Depth: 0 ft.	**Depth:** 2 ft.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 
Signature

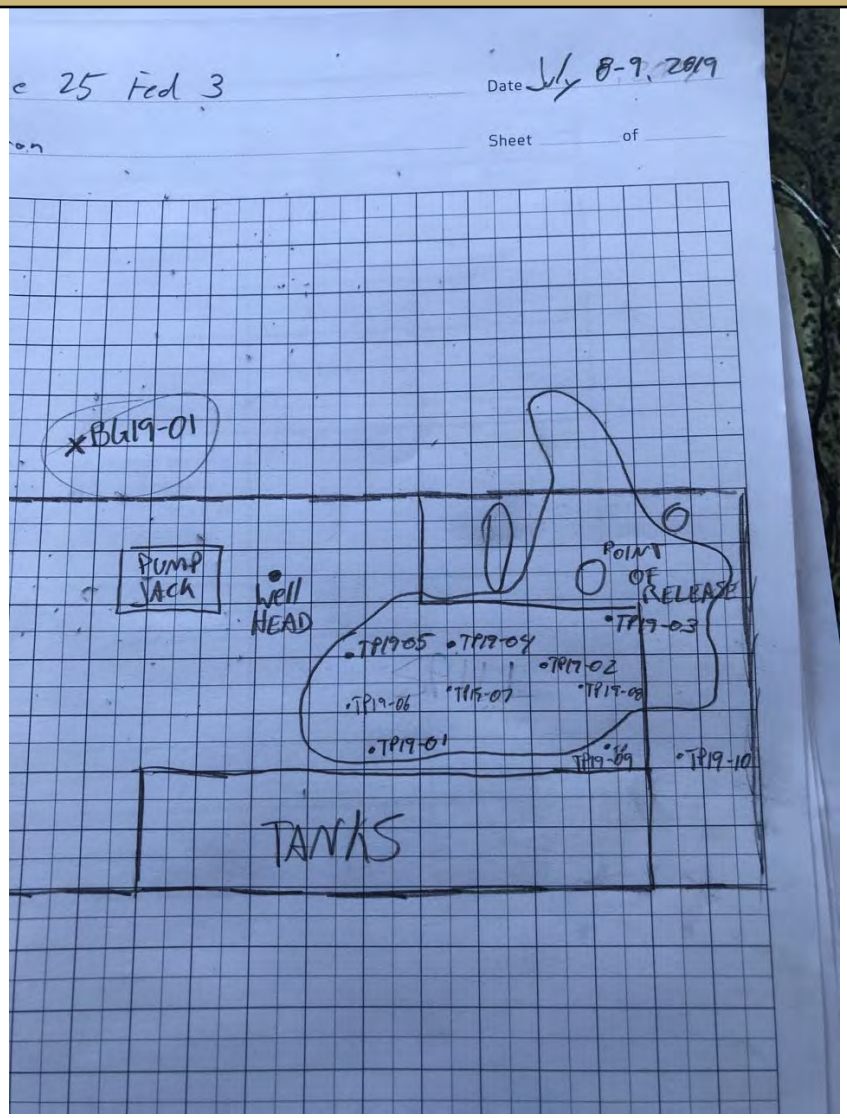
Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	7/9/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/10/2019 1:08 AM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	7/9/2019 7:00 AM
Arrived at Site	7/9/2019 7:45 AM
Departed Site	7/9/2019 5:40 PM
Returned to Office	7/9/2019 6:30 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

7:49 Arrive on site.
Complete safety paperwork.
Excavate spill area.
Field screen.
Jar samples meeting site criteria.
Complete DFR.
Return to office.

Next Steps & Recommendations

1

Sampling

TP19-01

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	2.8 ppm	31 ppm	Low (30-600 ppm)	277 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36829821, -103.82652498	Yes

TP19-02

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	41.6 ppm	109 ppm	Low (30-600 ppm)	59 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36841200, -103.82640075	Yes

Daily Site Visit Report

VERTEX

TP19-03

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	45.3 ppm	1119 ppm	Low (30-600 ppm)	296 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36843662, -103.82635249	Yes

TP19-04

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	46.5 ppm	37 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36840684, -103.82650431	Yes

TP19-05

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	2.3 ppm	27 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36840092, -103.82657226	Yes

TP19-06

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	9.6 ppm	6820 ppm	Low (30-600 ppm)	59 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36832924, -103.82656311	Yes

Daily Site Visit Report

TP19-07

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	76.1 ppm	2220 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36834683, -103.82649486	Yes

TP19-08

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	402.3 ppm	8360 ppm	Low (30-600 ppm)	193 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36833343, -103.82642194	Yes

TP19-09

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	4.8 ppm	111 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36826566, -103.82635354	Yes

TP19-10

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	0.3 ppm	33 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36825708, -103.82631147	Yes

Daily Site Visit Report

Site Photos

Viewing Direction: East

Excavated area in open pad

Viewing Direction: Northeast

Excavated area in open pad

Viewing Direction: West

Excavated area in open pad

Viewing Direction: North

Excavated area leading into production

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Excavated area near point of release	Excavated area near point of release

Viewing Direction: South	**Viewing Direction**: South
	
Excavated area near point of release	Excavated area near point of release

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: North
	
Excavated area near point of release	Day 1 excavation spoil
Viewing Direction: West	**Viewing Direction**: Southwest
	
Day 1 excavation spoil	Day 1 excavation spoil

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: TP19-01

Depth: 0.5 ft.

Sample Point ID: TP19-02

Depth: 0.5 ft.

Sample Point ID: TP19-03

Depth: 0.5 ft.

Sample Point ID: TP19-04

Depth: 1 ft.

Daily Site Visit Report

Sample Point ID: TP19-05

Depth: 1 ft.

Sample Point ID: TP19-06

Depth: 0.5 ft.

Sample Point ID: TP19-07

Depth: 0.5 ft.

Sample Point ID: TP19-08

Depth: 0.5 ft.

Daily Site Visit Report

Sample Point ID: TP19-09	**Sample Point ID**: TP19-10
	
Depth: 0.5 ft.	**Depth:** 0.5 ft.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 

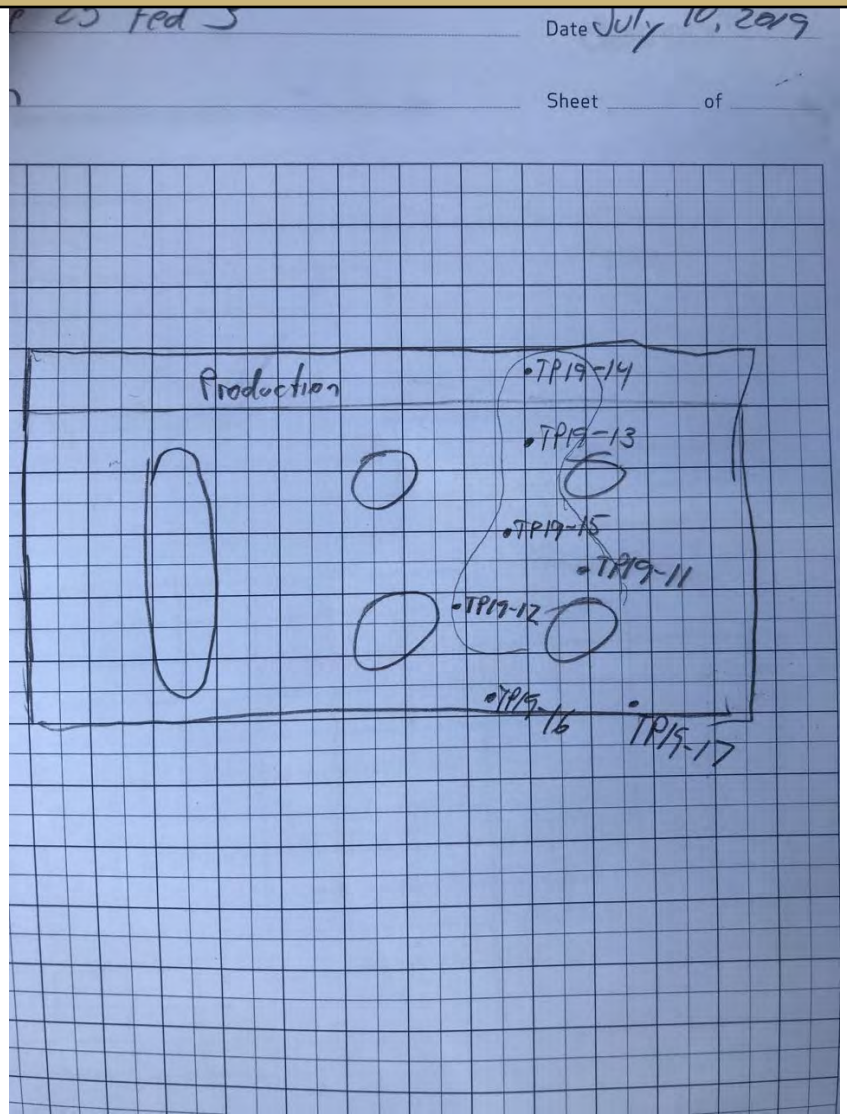
Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	7/10/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/11/2019 12:55 AM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	7/10/2019 6:30 AM
Arrived at Site	7/10/2019 7:15 AM
Departed Site	7/10/2019 5:45 PM
Returned to Office	7/10/2019 6:48 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

7:15 Arrive on site.
Complete safety paperwork.
Continue excavation and field screening samples.
Complete DFR.
Return to office.

Next Steps & Recommendations

1

Sampling

TP19-06

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	5.3 ppm	46 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36832924, -103.82656311	Yes

TP19-07

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	8.2 ppm	10 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36834683, -103.82649486	Yes

TP19-08

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	13.4 ppm	78 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36833343, -103.82642194	Yes

Daily Site Visit Report

TP19-11

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	997.7 ppm	8860 ppm	Low (30-600 ppm)	30 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36851436, -103.82629179	Yes
1 ft.	560.4 ppm	4940 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36851436, -103.82629179	Yes
2 ft.	329.1 ppm	1040 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36851436, -103.82629179	Yes

TP19-12

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	7.1 ppm	39 ppm	Low (30-600 ppm)	0.1 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36851582, -103.82633580	Yes

TP19-13

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	184.3 ppm	5000 ppm	Low (30-600 ppm)	229 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36857912, -103.82631449	Yes
1 ft.	184.3 ppm	5000 ppm	Low (30-600 ppm)	229 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36857912, -103.82631449	Yes

Daily Site Visit Report

TP19-14

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	155 ppm	6480 ppm	Low (30-600 ppm)	86 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36860007, -103.82629703	Yes

TP19-15

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
0.5 ft.	1341.4 ppm	4610 ppm	Low (30-600 ppm)	30 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36852384, -103.82630741	Yes

TP19-16

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	9.3 ppm	15 ppm	Low (30-600 ppm)	86 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36849180, -103.82633264	Yes

TP19-17

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
1 ft.	1.5 ppm	0 ppm	Low (30-600 ppm)	86 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36847538, -103.82630215	Yes

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: West
	
Excavated area within production area	Excavated area within production area
Viewing Direction: West	**Viewing Direction**: Southeast
	
Excavated area within production area	Excavated area within production area

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: North
	
Excavated area within production area	Excavated area within production area
Viewing Direction: Southeast	**Viewing Direction**: North
	
Excavated area on open pad	Day 2 spoil

Daily Site Visit Report

Viewing Direction: East	**Viewing Direction**: Southwest
	
Day 2 spoil	Day 2 spoil

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: TP19-06

Depth: 1 ft.

Sample Point ID: TP19-07

Depth: 1 ft.

Sample Point ID: TP19-08

Depth: 1 ft.

Sample Point ID: TP19-11

Depth: 0.5 ft.

Daily Site Visit Report

Sample Point ID: TP19-11

Depth: 1 ft.

Sample Point ID: TP19-12

Depth: 1 ft.

Sample Point ID: TP19-11

Depth: 2 ft.

Sample Point ID: TP19-13

Depth: 0.5 ft.

Daily Site Visit Report

Sample Point ID: TP19-13

Depth: 1 ft.

Sample Point ID: TP19-14

Depth: 0.5 ft.

Sample Point ID: TP19-15

Depth: 0.5 ft.

Sample Point ID: TP19-16

Depth: 1 ft.

Daily Site Visit Report

Sample Point ID: TP19-17

Depth: 1 ft.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 

Signature

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/16/2019 12:08 AM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

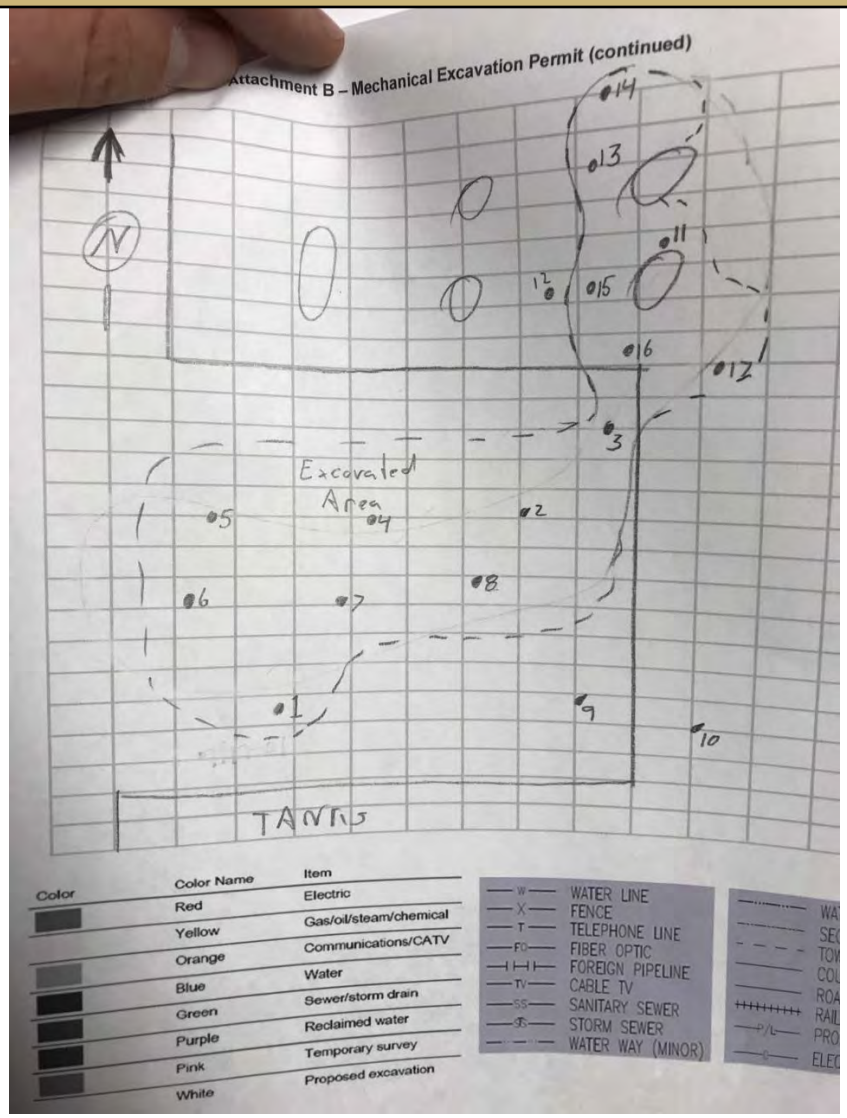
Summary of Times

Left Office	
Arrived at Site	
Departed Site	7/11/2019 2:46 PM
Returned to Office	7/11/2019 3:45 PM

Daily Site Visit Report

VERTEX

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

13:02 Arrive on site.
Fill out safety paperwork.
Continue excavation.
Complete DFR.
Return to office.

Next Steps & Recommendations

1 Operation cancelled for day due to lightning in area.

Sampling

TP19-15

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
2 ft.	3.3 ppm	110 ppm	Low (30-600 ppm)	151 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	,	Yes

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: TP19-15

Depth: 2 ft.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 

Signature

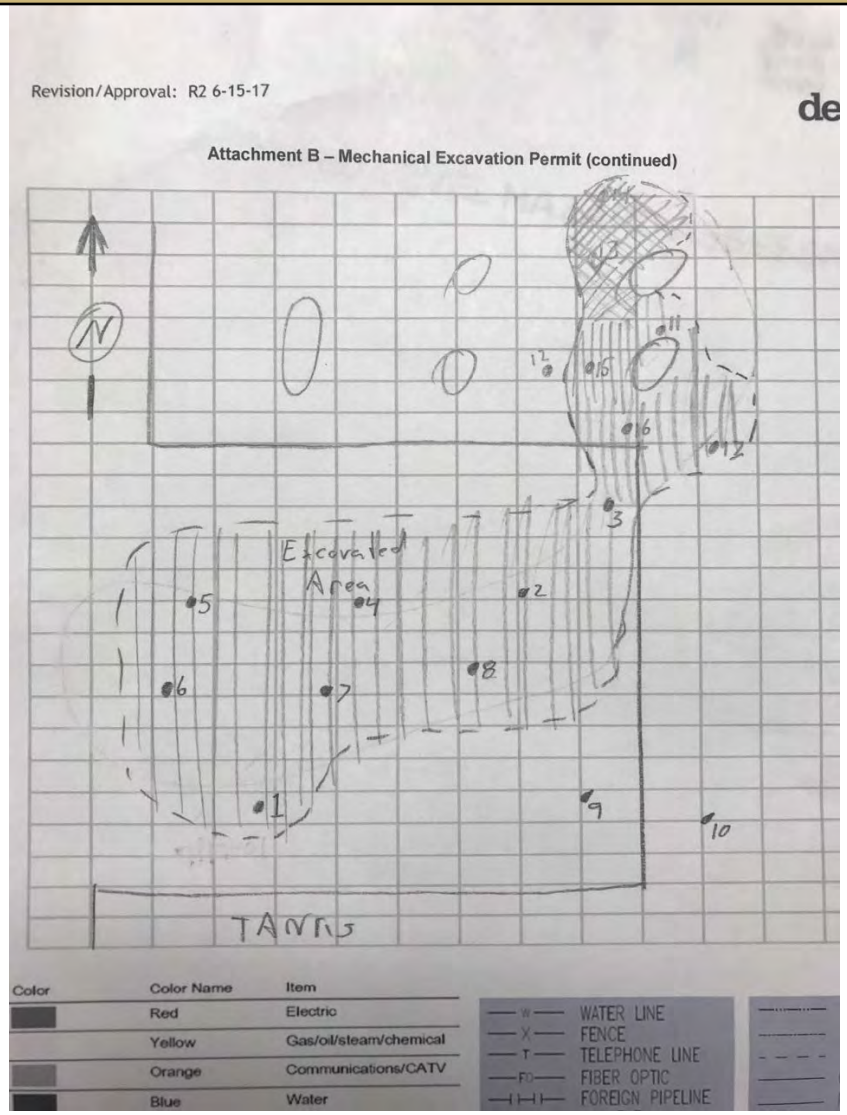
Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	7/12/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/13/2019 12:25 AM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times	
Left Office	7/12/2019 7:00 AM
Arrived at Site	7/12/2019 7:53 AM
Departed Site	7/12/2019 5:13 PM
Returned to Office	7/12/2019 6:04 PM

Daily Site Visit Report

Site Sketch



Daily Site Visit Report

Summary of Daily Operations

9:11 Arrive on site.
Complete safety paperwork.
Complete excavation and field screening.
Complete DFR.
Return to office.

Next Steps & Recommendations

1 Send samples to lab

2 Confirm closure criteria on site

3 Backfill excavated area

4 Closure report

Sampling

TP19-13

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
3.5 ft.	13.7 ppm	270 ppm	Low (30-600 ppm)	74 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36857912, -103.82631449	Yes

TP19-14

Depth ft	VOC PID	Petro Flag TPH ppm	Quantab Range ppm	Quantab Reading ppm	Lab Analysis	Picture	Trimble Location	Marked On Site Sketch?
2 ft.	1.3 ppm	35 ppm	Low (30-600 ppm)	86 ppm	BTEX (EPA SW-846 Method 8021B/8260B), Chloride (SW-4500 Cl), TPH (EPA SW-846 Method 8015M)	✓	32.36860007, -103.82629703	Yes

Daily Site Visit Report

Site Photos

Viewing Direction: Southeast	**Viewing Direction**: South
	
Completed excavation on open pad	Completed excavation on open pad
Viewing Direction: Northeast	**Viewing Direction**: West
	
Completed excavation on open pad	Completed excavation on open pad

Daily Site Visit Report

Viewing Direction: North	**Viewing Direction**: West
	
Completed excavation directly south of production equipment	Completed excavation directly south of production equipment
Viewing Direction: West	**Viewing Direction**: Southeast
	
Completed excavation within production area	Completed excavation within production area

Daily Site Visit Report

Viewing Direction: East

Completed excavation north of production equipment

Viewing Direction: Southwest

Completed excavation north of production equipment

Viewing Direction: South

Completed excavation north of production equipment

Viewing Direction: North

Completed excavation north of point of release

Daily Site Visit Report

Viewing Direction: North

Spoil pile estimate 200 yards

Viewing Direction: Southwest

Spoil pile estimate 200 yards

Viewing Direction: East

Spoil pile estimate 200 yards

Daily Site Visit Report

Depth Sample Photos

Sample Point ID: TP19-14	**Sample Point ID**: TP19-13
	
Depth: 2 ft.	**Depth:** 3.5 ft.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Austin Harris

Signature: 
Signature

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	7/23/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/24/2019 2:32 AM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times

Left Office	7/23/2019 6:57 AM
Arrived at Site	7/23/2019 7:52 AM
Departed Site	7/23/2019 7:30 PM
Returned to Office	7/23/2019 8:20 PM

Summary of Daily Operations

7:53 Arrived on site and complete all safety paperwork and arrival form.

17:40 Started backfill with clean base coarse material.

18:38 Put wire fence back together.

18:38 Fenced off excavation area.

Next Steps & Recommendations

1. Finish backfill tomorrow.
2. Complete closure report for NMOCD and the client.
3. Close out file.

Daily Site Visit Report

Site Photos

Viewing Direction: North

Heater treater area backfilled.

Viewing Direction: South

Heater treater area backfilled.

Viewing Direction: South

Fenced off area backfilled.

Viewing Direction: West

Fenced off area backfilled.

Daily Site Visit Report

Viewing Direction: North

Heater Treater area backfilled.

Viewing Direction: East

Excavation area fenced off.

Viewing Direction: East

Clean backfill for tomorrow

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Robyn Fisher

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	7/24/2019
Site Location Name:	Apache 5 Fed #003	Report Run Date:	7/24/2019 11:50 PM
Project Owner:	Amanda Davis	File (Project) #:	19E-00575
Project Manager:	Dennis Williams	API #:	
Client Contact Name:	Amanda Davis	Reference	2RP- Assigned
Client Contact Phone #:	(575) 748-0176		

Summary of Times

Left Office	7/24/2019 6:57 AM
Arrived at Site	7/24/2019 7:49 AM
Departed Site	7/24/2019 1:14 PM
Returned to Office	7/24/2019 2:17 PM

Summary of Daily Operations

7:50 Arrive onsite and complete safety paperwork and arrival form.

12:28 Backfill completed.

Next Steps & Recommendations

1 Complete closure report for NMOCD and the client.

2 Close out file.

Daily Site Visit Report

Site Photos

Viewing Direction: East

Excavation area backfilled.

Viewing Direction: Southeast

Excavation area backfilled.

Viewing Direction: Southwest

Excavation area backfilled.

Viewing Direction: West

Excavation area backfilled.

Daily Site Visit Report

Viewing Direction: North

Soil pile area

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Robyn Fisher

Signature: 

ATTACHMENT 4

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 03221 EXPLORE	CUB	ED	1	2	1	30	22S	31E	610995	3581935*	614	651		
C 02637	CUB	ED	1	3	3	24	22S	30E	608950	3582377*	1513	759		
C 02950 EXPL	CUB	ED	4	2	4	23	22S	30E	608740	3582576*	1780	845		
C 02759	CUB	ED	1	2	1	29	22S	31E	612604	3581952*	2222	795		
C 02758	CUB	ED	3	2	1	29	22S	31E	612604	3581752*	2226	661		
C 02762	CUB	ED	3	2	1	29	22S	31E	612604	3581752*	2226	672		
C 02763	CUB	ED	3	2	1	29	22S	31E	612604	3581752*	2226	660		
C 02766	CUB	ED	3	3	3	29	22S	31E	612216	3580541*	2274	589		
C 02683	CUB	ED	3	1	1	20	22S	31E	612184	3583356*	2324	840		
C 02418	CUB	ED	3	2	3	29	22S	31E	612613	3580948*	2420	617	413	204
C 02419	CUB	ED	3	2	3	29	22S	31E	612613	3580948*	2420	225		
C 03976 POD1	CUB	ED	1	3	4	20	22S	31E	612967	3582387	2633	180		
C 03976 POD2	CUB	ED	1	3	4	20	22S	31E	612967	3582387	2633	70		
C 03976 POD3	CUB	ED	1	3	4	20	22S	31E	612967	3582387	2633	182		
C 03976 POD4	CUB	ED	1	3	4	20	22S	31E	612968	3582386	2633	71		
C 03561 POD4	CUB	ED	3	2	3	36	22S	30E	609419	3579425	2643	25	0	25
C 03561 POD5	CUB	ED	3	2	3	36	22S	30E	609419	3579425	2643	20	0	20
C 03561 POD3	CUB	ED	3	2	3	36	22S	30E	609393	3579425	2653	25	0	25
C 03561 POD2	CUB	ED	3	2	3	36	22S	30E	609314	3579424	2684	25	0	25
C 03561 POD1	CUB	ED	3	2	3	36	22S	30E	609288	3579393	2723	30	0	30
C 02413	CUB	ED	1	2	1	20	22S	31E	612586	3583560*	2767	737		
C 02662	CUB	ED	1	2	2	29	22S	31E	613409	3581960*	3027	856		
C 02765	CUB	ED	1	2	2	29	22S	31E	613409	3581960*	3027	856		
C 02989	CUB	ED	3	4	4	20	22S	31E	613404	3582162*	3034	54		
C 02753	CUB	ED	1	4	4	20	22S	31E	613404	3582362*	3059	851		
C 02986	CUB	ED	1	4	4	20	22S	31E	613404	3582362*	3059	71		

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

(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	Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02990	CUB		ED	1	4	4	20	22S	31E	613404	3582362*	3059	71		
C 02505	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	69	48	21
C 02506	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	69	48	21
C 02507	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	73	45	28
C 02752	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	2875		
C 02801	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	65		
C 02802	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	65		
C 02803	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	65		
C 02981	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	62		
C 02983	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	60		
C 02987	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	68		
C 02991	CUB		ED	4	4	4	20	22S	31E	613604	3582162*	3233	64		
C 02737	C		ED	2	4	2	29	22S	31E	613604	3581567	3238	710		
C 02811	CUB		ED	2	4	2	29	22S	31E	613613	3581558*	3247	80		
C 02980	CUB		ED	2	4	4	20	22S	31E	613604	3582362*	3256	62		
C 02982	CUB		ED	2	4	4	20	22S	31E	613604	3582362*	3256	65		
C 02984	CUB		ED	2	4	4	20	22S	31E	613604	3582362*	3256	65		
C 02985	CUB		ED	2	4	4	20	22S	31E	613604	3582362*	3256	62		
C 02988	CUB		ED	2	4	4	20	22S	31E	613604	3582362*	3256	75		
C 02749	CUB		ED	1	1	1	18	22S	31E	610556	3585146*	3263	640		
C 02750	CUB		ED	1	1	1	18	22S	31E	610556	3585146*	3263	741		
C 02751	CUB		ED	1	1	1	18	22S	31E	610556	3585146*	3263	637		
C 02754	CUB		ED	4	2	4	20	22S	31E	613599	3582564*	3287	1045		
C 02748	CUB		ED	1	2	3	17	22S	31E	612576	3584364*	3308	3856		
C 02760	CUB		ED	2	2	4	29	22S	31E	613618	3581156*	3317	725		
C 02761	CUB		ED	2	2	4	29	22S	31E	613618	3581156*	3317	730		
C 02764	CUB		ED	2	2	4	29	22S	31E	613618	3581156*	3317	902		
C 02761 POD1	CUB		ED	2	2	4	29	22S	31E	613651	3581101	3362	725		
C 03207	CUB		ED	4	2	4	29	22S	31E	613618	3580956*	3367	150		

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

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(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 02755	CUB	ED	4	4	2	20	22S	31E	613595	3582966*	3389	1040		
C 02417	CUB	ED	4	4	4	29	22S	31E	613623	3580554*	3504	681		
C 02684	CUB	ED	4	2	2	20	22S	31E	613590	3583368*	3533	1060		
C 03559 POD1	CUB	ED	4	3	2	01	23S	30E	609928	3578260	3654	50	0	50
C 03559 POD2	CUB	ED	4	3	2	01	23S	30E	609928	3578260	3654	25	0	25
C 03559 POD3	CUB	ED	4	3	2	01	23S	30E	609928	3578260	3654	20	0	20
C 03559 POD4	CUB	ED	4	3	2	01	23S	30E	609928	3578260	3654	25	0	25
C 02725	CUB	ED	1	1	1	05	23S	31E	612240	3578731*	3662	532		
C 02775	CUB	ED	1	1	1	05	23S	31E	612240	3578731*	3662	529		
C 03559 POD5	CUB	ED	4	3	2	01	23S	30E	609912	3578236	3680	50		
C 02639	CUB	ED	4	4	4	17	22S	31E	613585	3583770*	3715	3928		
C 02776	CUB	ED	2	1	1	05	23S	31E	612440	3578731*	3767	661		
C 02638	CUB	ED	4	3	3	35	22S	30E	607558	3578948*	4075	528		
C 02414	CUB	ED	3	1	3	16	22S	31E	613782	3584176*	4098	846		
C 03139	CUB	ED	4	2	4	01	23S	30E	610424	3577764*	4123	425		
C 02420	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	779	450	329
C 02421	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	786	450	336
C 02422	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	785	450	335
C 02423	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	782	450	332
C 02424	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	786	450	336
C 02425	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	788	450	338
C 02426	CUB	ED	4	2	3	28	22S	31E	614423	3580964*	4145	785	450	335
C 03015	CUB	ED	1	4	3	22	22S	30E	606099	3582353*	4308	1316	262	1054
C 02664	CUB	ED	3	3	2	05	23S	31E	613049	3578138*	4600	4291	354	3937
C 02415	CUB	ED	3	3	4	16	22S	31E	614592	3583785*	4618	880	448	432
C 02682	CUB	ED	4	4	4	08	22S	31E	613566	3585379*	4725	4400		
C 02416	CUB	ED	3	2	4	28	22S	31E	615027	3580973*	4734	800	401	399
C 02723	CUB	ED	2	2	3	15	22S	30E	606282	3584363*	4789	651		
C 02685	CUB	ED	2	2	2	28	22S	31E	615218	3581978*	4836	900		

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

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

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(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 Code	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Distance	Depth Well	Depth Water	Water Column
C 02492	CUB	ED	4	4	4	06	23S	31E	612056	3577320*	4864	135	85	50
C 02865	CUB	ED	4	4	4	06	23S	31E	612056	3577320*	4864	174		
C 03520 POD1	C	ED	3	1	1	07	23S	31E	610733	3576905	4993	500		

Average Depth to Water: **210 feet**

Minimum Depth: **0 feet**

Maximum Depth: **450 feet**

Record Count: 87

UTMNAD83 Radius Search (in meters):

Easting (X): 610382 **Northing (Y):** 3581887 **Radius:** 5000

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

New Mexico Office of the State Engineer

Active & Inactive Points of Diversion

(with Ownership Information)

(acre ft per annum)

(R=POD has been replaced and no longer serves this file, C=the file is closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest)

(NAD83 UTM in meters)

WR File Nbr	Sub basin	Use	Diversion	Owner	County	POD Number	Well Tag	Code	Grant	Source	q 6416	q 4	q	Sec	Tws	Rng	X	Y	Distance
C 03221	CUB	MON	0	U.S. DEPART OF ENERGY	ED	C 03221 EXPLORE				Artesian	1	2	1	30	22S	31E	610995	3581935*	614
C 02637	CUB	MON	0	U.S. DEPARTMENT OF ENERGY	ED	C 02637					1	3	3	24	22S	30E	608950	3582377*	1513

Record Count: 2

UTMNAD83 Radius Search (in meters):

Easting (X): 610382 **Northing (Y):** 3581887 **Radius:** 1610

Sorted by: Distance

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Apache 25 Federal 003 Riverine 3311ft

June 20, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Help Using this Tool

Legend | Basemap | Query

1:10,000

Legend

All Layers On/Off

All Layer Transparency

Active Fire Perimeters

Active Fire Perimeters

Fire Perimeters

Historic Wildfires

Water Quality Stations

Water Quality Stations

Water Quality Stations

USGS Stream Gages

Climatological Stations

NPDES Permits

20.6.4.97 NMAC

Impaired Waters 2020 DRAFT

Impaired Waters 2020 DRAFT

Impaired Streams 2020 DRAFT

Impaired Lakes 2020 DRAFT

U.S. Fish and Wildlife Service
National Wetlands Inventory

Apache 25 Federal 003 Lake/Pond 6345ft

June 20, 2019

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

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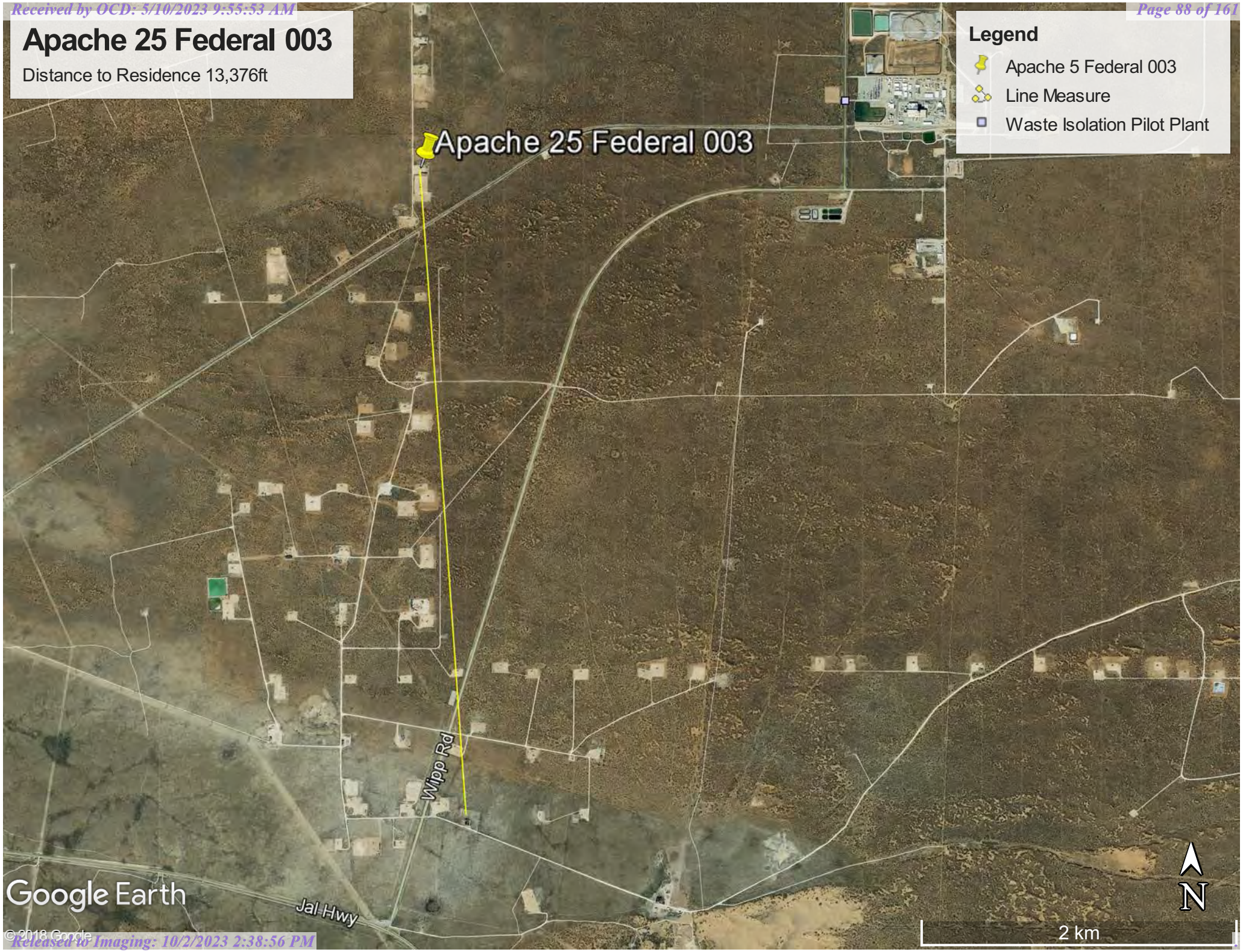
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Apache 25 Federal 003

Distance to Residence 13,376ft



Apache 25 Federal 003

Distance to POD 2014ft

Apache 25 Fed 3

Nearest Spring 95,836 ft

Apache 32.3684883, -103.8266678

Legend

Feature 1

Jal Hwy

128

Salt Lake

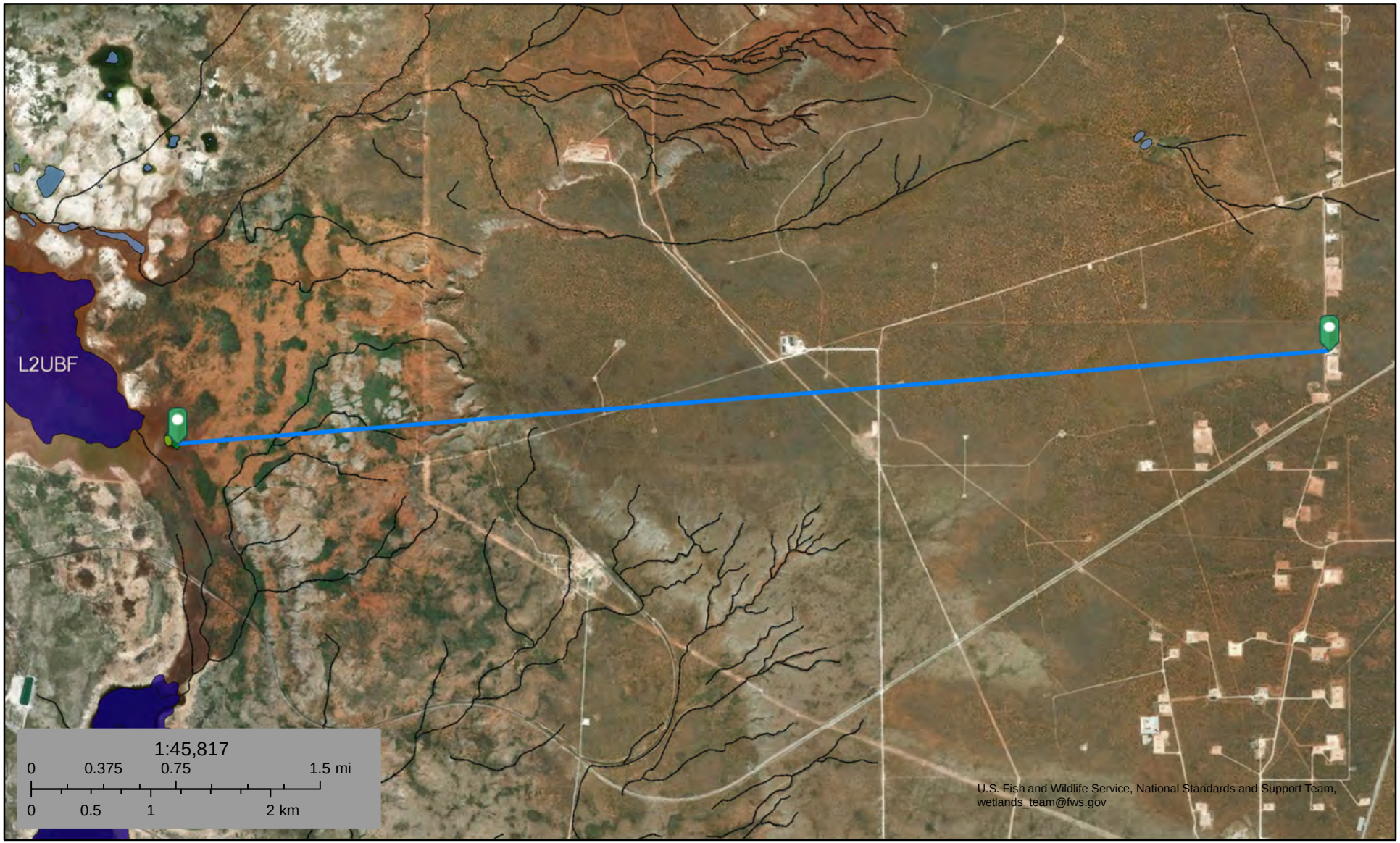
N

7 mi

Google Earth

U.S. Fish and Wildlife Service
National Wetlands Inventory

Apache 25 Federal 003 Wetland 26800ft



June 20, 2019

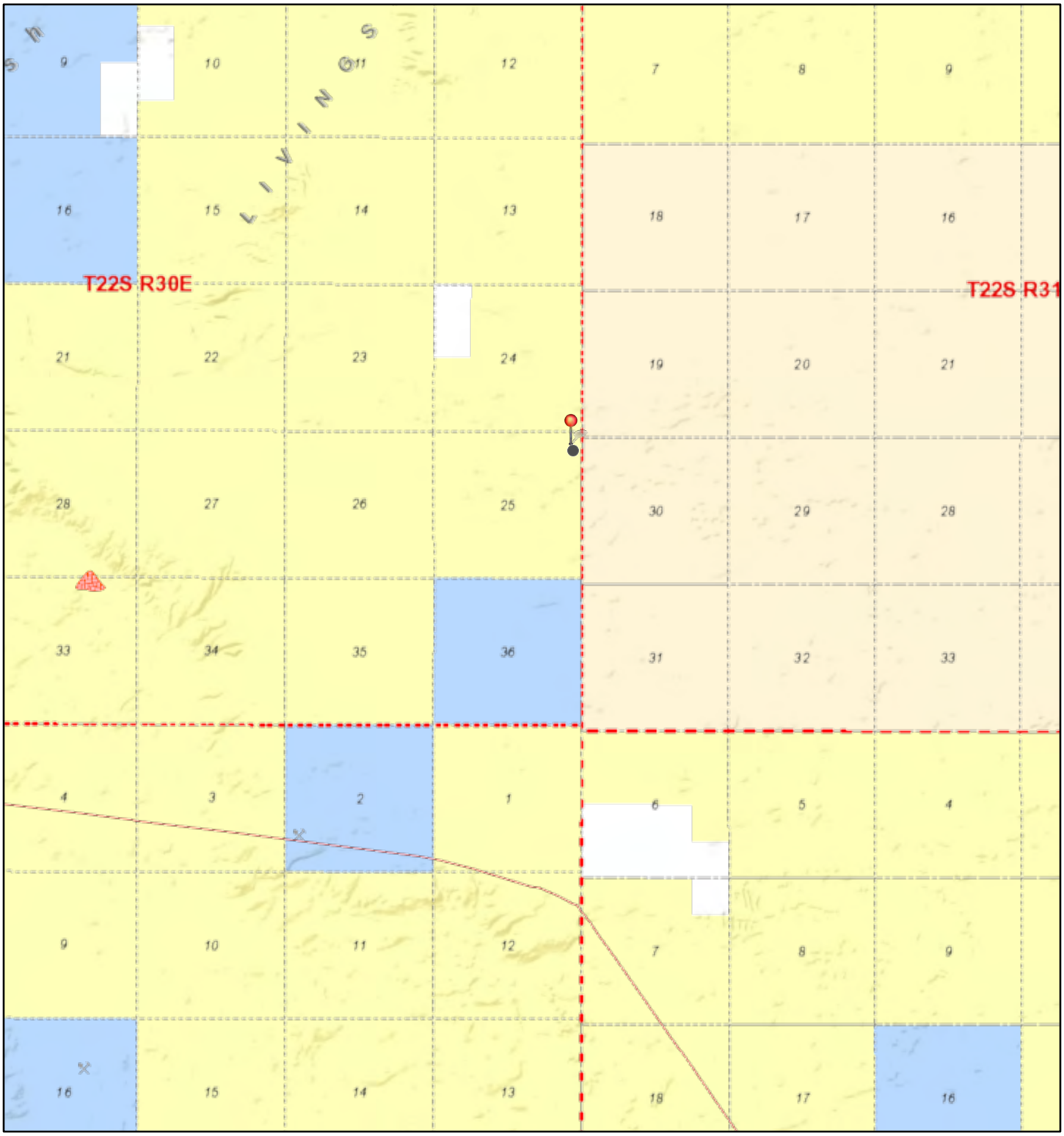
Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines in New Mexico



8/2/2019 1:02:24 PM

1:72,224

0 0.5 1 2 mi

0 0.75 1.5 3 km

Registered Mines

- Aggregate, Stone etc.
- Aggregate, Stone etc.
- Potash

U.S. Bureau of Land Management - New Mexico State Office, Sources: Esri, USGS, NOAA, Sources: Esri, Garmin, USGS, NPS

EMNRD MMD GIS Coordinator

National Flood Hazard Layer FIRMette

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN — Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 / 17.5 — Cross Sections with 1% Annual Chance / Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/20/2019 at 3:11:31 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Eddy Area, New Mexico

July 18, 2019

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Contents

Preface.....2
How Soil Surveys Are Made.....5
Soil Map.....8
Soil Map.....9
Legend.....10
Map Unit Legend.....11
Map Unit Descriptions.....11
Eddy Area, New Mexico.....13
BB—Berino complex, 0 to 3 percent slopes, eroded.....13
References.....16

How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Eddy Area, New Mexico
Survey Area Data: Version 14, Sep 12, 2018

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Dec 31, 2009—Sep 17, 2017

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
BB	Berino complex, 0 to 3 percent slopes, eroded	1.8	100.0%
Totals for Area of Interest		**1.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Eddy Area, New Mexico

BB—Berino complex, 0 to 3 percent slopes, eroded

Map Unit Setting

National map unit symbol: 1w43
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 5 to 15 inches
Mean annual air temperature: 57 to 70 degrees F
Frost-free period: 180 to 260 days
Farmland classification: Not prime farmland

Map Unit Composition

Berino and similar soils: 60 percent
Pajarito and similar soils: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Fan piedmonts, plains
Landform position (three-dimensional): Riser
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 17 inches: fine sand
H2 - 17 to 58 inches: sandy clay loam
H3 - 58 to 60 inches: loamy sand

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to high (0.60 to 2.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Description of Pajarito

Setting

Landform: Interdunes, dunes, plains
Landform position (three-dimensional): Side slope
Down-slope shape: Linear, convex
Across-slope shape: Linear, convex
Parent material: Mixed alluvium and/or eolian sands

Typical profile

H1 - 0 to 9 inches: loamy fine sand
H2 - 9 to 72 inches: fine sandy loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (2.00 to 6.00 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 40 percent
Salinity, maximum in profile: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum in profile: 1.0
Available water storage in profile: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): 2e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: A
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Minor Components

Cacique

Percent of map unit:
Ecological site: Sandy (R042XC004NM)
Hydric soil rating: No

Pajarito

Percent of map unit:
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Wink

Percent of map unit:
Ecological site: Loamy Sand (R042XC003NM)
Hydric soil rating: No

Kermit

Percent of map unit:
Ecological site: Deep Sand (R042XC005NM)
Hydric soil rating: No

Custom Soil Resource Report

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ATTACHMENT 5

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information

Name Amanda Davis

Phone No.

GENERATOR

NO. 388938

Operator No.		Permit/RRC No.	
Operators Name		Lease/Well Name & No.	Apache 75 Fed 3
Address		County	Eddy
		API No.	30-015-32719
City, State, Zip		Rig Name & No.	
Phone No.		AFE/PO No.	

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Muds		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Oil Based Cuttings		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Muds		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Water Based Cuttings		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Produced Formation Solids		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
Tank Bottoms		Truck Washout (exempt waste)			
E&P Contaminated Soil	20				
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other ____________ *please select from ***Non-Exempt Waste List*** on back

QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Amanda Davis — (PRINT) AUTHORIZED AGENTS NAME | July 23, 2019 — DATE | SIGNATURE

TRANSPORTER

Transporter's Name	LP TRUCKING	Driver's Name	
Address		Print Name	
		Phone No.	432-209-6966
Phone No.		Truck No.	#07

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE | DRIVER'S SIGNATURE | DELIVERY DATE | DRIVER'S SIGNATURE

TRUCK TIME STAMP	DISPOSAL FACILITY	RECEIVING AREA
IN: ________ OUT: ________		Name/No.

Site Name/Permit No. Halfway Facility / NM1-006

Phone No. 575-393-1079

Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220

NORM READINGS TAKEN? (Circle One) YES NO — If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) | DATE | TITLE | SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information

Name Amanda Davis

Phone No. 505-350-1336

GENERATOR

NO. 388941

Operator No.

Operators Name Devon Energy

Address 6488 Seven Rivers Hwy

City, State, Zip Artesia, New Mexico

Phone No. 505-350-1336

Permit/RRC No.

Lease/Well Name & No. Apache 25 Fed 3

County Eddy

API No. 30-015-36719

Rig Name & No. N/A

AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Cuttings		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Water Based Muds		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Cuttings		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Produced Formation Solids		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Tank Bottoms		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
E&P Contaminated Soil	20	Truck Washout (exempt waste)		Belly	
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other ______ *please select from **Non-Exempt Waste List** on back

QUANTITY 20 B - BARRELS L - LIQUID (Y - YARDS) E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Rapid Force for Amanda Davis ______ [illegible] ______ [signature]

(PRINT) AUTHORIZED AGENTS NAME ______ DATE ______ SIGNATURE

TRANSPORTER

Transporter's Name LP Trucking

Address

Phone No.

Driver's Name Juan C D

Print Name

Phone No. 432 029 69 66

Truck No. #03

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

______ SHIPMENT DATE ______ DRIVER'S SIGNATURE 7/13 DELIVERY DATE [signature] DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN: ______ OUT: ______

DISPOSAL FACILITY

RECEIVING AREA

Name/No. 5015

Site Name/ Permit No. Halfway Facility / NM1-006

Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220

Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES (NO)

If YES, was reading > 50 micro roentgens? (circle one) YES (NO)

PASS THE PAINT FILTER TEST? (Circle One) (YES) NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): (ACCEPTED) DENIED If denied, why?

William Ryan ______ 7/13 ______ Admin [signature]

NAME (PRINT) ______ DATE ______ TITLE ______ SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name
Phone No.

GENERATOR

NO. 388933

Operator No.
Operators Name
Address
City, State, Zip
Phone No.

Permit/RRC No.
Lease/Well Name & No.
County
API No.
Rig Name & No.
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS	INJECTABLE WATERS
Oil Based Cuttings	Washout Water (Non-Injectable)	Washout Water (Injectable)
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)	Completion Fluid/Flow back (Injectable)
Water Based Cuttings	Produced Water (Non-Injectable)	Produced Water (Injectable)
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)	Gathering Line Water/Waste (Injectable)
Tank Bottoms	INTERNAL USE ONLY	OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil	Truck Washout (exempt waste)	
Gas Plant Waste		

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS NAME DATE SIGNATURE

TRANSPORTER

Transporter's Name
Address
Phone No.

Driver's Name
Print Name
Phone No.
Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE DRIVER'S SIGNATURE DELIVERY DATE DRIVER'S SIGNATURE

TRUCK TIME STAMP
IN: OUT:

DISPOSAL FACILITY

RECEIVING AREA
Name/No.

Site Name/ Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) DATE TITLE SIGNATURE

C-138

White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name Amanda Davis
Phone No. 505-350-1336

GENERATOR

NO. 388932

Operator No.
Operators Name Devon Energy
Address 6488 Seven Rivers Highway
City, State, Zip Artesia, New Mexico 88210
Phone No. 505-350-1336

Permit/RRC No.
Lease/Well Name & No. Apache 25 Fed 3
County Eddy
API No. 30-015-32719
Rig Name & No. N/A
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Muds		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Oil Based Cuttings		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Muds		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Water Based Cuttings		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Produced Formation Solids		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
Tank Bottoms		Truck Washout (exempt waste)		Bottoms	
E&P Contaminated Soil	20				
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other ______ *please select from **Non-Exempt Waste List** on back*

QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Rogelio ... for Amanda Davis | 03/07/2019 | [signature]
(PRINT) AUTHORIZED AGENTS NAME | DATE | SIGNATURE

TRANSPORTER

Transporter's Name Vaughn Trucking
Address 1118 E Walker

Phone No.

Driver's Name [signature]
Print Name Edward Mendoza
Phone No. 575-263-2305
Truck No. 44

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE | DRIVER'S SIGNATURE | DELIVERY DATE 7/1/3 | DRIVER'S SIGNATURE [signature]

TRUCK TIME STAMP
IN: ______ OUT: ______

DISPOSAL FACILITY

RECEIVING AREA
Name/No. 5017

Site Name/ Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES NO
If YES, was reading > 50 micro roentgens? (circle one) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

		BS&W (%)	
BS&W/BBLS Received			
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

[name] | 7/13 | [title] | [signature]
NAME (PRINT) | DATE | TITLE | SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name Amanda Davis
Phone No. 575-350-1336

GENERATOR

NO. 388937

Operator No.
Operators Name Devon Energy
Address 6488 Seven Rivers Highway
City, State, Zip Artesia, New Mexico 88210
Phone No. 505-350-1136

Permit/RRC No.
Lease/Well Name & No. Apache 25 Fed 3
County Eddy
API No. 30-015-32719
Rig Name & No. N/A
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds		NON-INJECTABLE WATERS	INJECTABLE WATERS
Oil Based Cuttings		Washout Water (Non-Injectable)	Washout Water (Injectable)
Water Based Muds		Completion Fluid/Flow back (Non-Injectable)	Completion Fluid/Flow back (Injectable)
Water Based Cuttings		Produced Water (Non-Injectable)	Produced Water (Injectable)
Produced Formation Solids		Gathering Line Water/Waste (Non-Injectable)	Gathering Line Water/Waste (Injectable)
Tank Bottoms		INTERNAL USE ONLY	OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil	20	Truck Washout (exempt waste)	211(c)
Gas Plant Waste			

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Robert Fuller for Amanda Davis — (PRINT) AUTHORIZED AGENTS NAME
July 23, 2019 — DATE
SIGNATURE

TRANSPORTER

Transporter's Name LP trucking
Address
Phone No. 432 209 6911

Driver's Name Refugio Gonzalez
Print Name Refugio Gonzalez
Phone No.
Truck No. #02

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE — DRIVER'S SIGNATURE
7/23 — DELIVERY DATE
X Refugio Gonzalez — DRIVER'S SIGNATURE

TRUCK TIME STAMP
IN: OUT:

DISPOSAL FACILITY

RECEIVING AREA
Name/No. 2091

Site Name/ Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) — DATE — TITLE — SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information

Name

Phone No.

GENERATOR

NO. 388936

Operator No.

Operators Name

Address

City, State, Zip

Phone No.

Permit/RRC No.

Lease/Well Name & No.

County

API No.

Rig Name & No.

AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds		NON-INJECTABLE WATERS	INJECTABLE WATERS
Oil Based Cuttings		Washout Water (Non-Injectable)	Washout Water (Injectable)
Water Based Muds		Completion Fluid/Flow back (Non-Injectable)	Completion Fluid/Flow back (Injectable)
Water Based Cuttings		Produced Water (Non-Injectable)	Produced Water (Injectable)
Produced Formation Solids		Gathering Line Water/Waste (Non-Injectable)	Gathering Line Water/Waste (Injectable)
Tank Bottoms		INTERNAL USE ONLY	OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil		Truck Washout (exempt waste)	
Gas Plant Waste			

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back*

QUANTITY 70 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS NAME DATE SIGNATURE

TRANSPORTER

Transporter's Name LP Trucking

Address

Phone No.

Driver's Name Juan (D

Print Name

Phone No. 932 099 6966

Truck No. #03

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE DRIVER'S SIGNATURE DELIVERY DATE DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN: OUT:

DISPOSAL FACILITY

RECEIVING AREA

Name/No.

Site Name/ Permit No. Halfway Facility / NM1-006

Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220

Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) DATE TITLE SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name
Phone No.

GENERATOR

NO. 388934

Operator No.
Operators Name
Address
City, State, Zip
Phone No.

Permit/RRC No.
Lease/Well Name & No.
County
API No.
Rig Name & No.
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds	NON-INJECTABLE WATERS		INJECTABLE WATERS
Oil Based Cuttings	Washout Water (Non-Injectable)		Washout Water (Injectable)
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)
Water Based Cuttings	Produced Water (Non-Injectable)		Produced Water (Injectable)
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)
Tank Bottoms	INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil	Truck Washout (exempt waste)		
Gas Plant Waste			

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS NAME | DATE | SIGNATURE

TRANSPORTER

Transporter's Name
Address
Phone No.

Driver's Name
Print Name
Phone No.
Truck No.

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE | DRIVER'S SIGNATURE | DELIVERY DATE | DRIVER'S SIGNATURE

TRUCK TIME STAMP
IN: OUT:

DISPOSAL FACILITY

RECEIVING AREA
Name/No.

Site Name/ Permit No. Halfway Facility / NM1-006
Phone No. 575-393-1079
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) | DATE | TITLE | SIGNATURE

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R360 ENVIRONMENTAL SOLUTIONS

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name Amanda Davis
Phone No. 505-...-1396

GENERATOR

NO. 388935

Operator No.
Operators Name Vaquero Energy
Address
City, State, Zip ... New Mexico ...
Phone No. 505-...-1396

Permit/RRC No.
Lease/Well Name & No.
County
API No.
Rig Name & No. N/A
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Cuttings		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Water Based Muds		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Cuttings		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Produced Formation Solids		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Tank Bottoms		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
E&P Contaminated Soil	20	Truck Washout (exempt waste)			
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other ______ *please select from **Non-Exempt Waste List** on back

QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

... for Amanda Davis | ../07/2019 | [signature]
(PRINT) AUTHORIZED AGENTS NAME | DATE | SIGNATURE

TRANSPORTER

Transporter's Name LP TRUCKING
Address
Phone No.

Driver's Name Lazaro Parada
Print Name
Phone No. 432 209 6966
Truck No. 07

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE | DRIVER'S SIGNATURE | DELIVERY DATE 9/23 | DRIVER'S SIGNATURE Lazaro Parada

TRUCK TIME STAMP
IN: ______ OUT: ______

DISPOSAL FACILITY

RECEIVING AREA
Name/No. 5015

Site Name/ Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

NORM READINGS TAKEN? (Circle One) YES NO
If YES, was reading > 50 micro roentgens? (circle one) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

[handwritten name] | 9/23 | [handwritten title] | [signature]
NAME (PRINT) | DATE | TITLE | SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information
Name
Phone No.

GENERATOR

NO. 388942

Operator No.
Operators Name
Address
City, State, Zip
Phone No.

Permit/RRC No.
Lease/Well Name & No.
County
API No.
Rig Name & No.
AFE/PO No.

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)			
Oil Based Muds	NON-INJECTABLE WATERS		INJECTABLE WATERS
Oil Based Cuttings	Washout Water (Non-Injectable)		Washout Water (Injectable)
Water Based Muds	Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)
Water Based Cuttings	Produced Water (Non-Injectable)		Produced Water (Injectable)
Produced Formation Solids	Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)
Tank Bottoms	INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)
E&P Contaminated Soil 70	Truck Washout (exempt waste)		
Gas Plant Waste			

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY 70 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☐ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

(PRINT) AUTHORIZED AGENTS NAME DATE SIGNATURE

TRANSPORTER

Transporter's Name: Wild West Services
Address: 445 Thornhill Rd.
Phone No.

Driver's Name: William Fields
Print Name
Phone No.: 575-605-8365
Truck No.: 74

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE 07.24.19 DRIVER'S SIGNATURE DELIVERY DATE 7/24 DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN: OUT:

DISPOSAL FACILITY

Site Name/Permit No.: Halfway Facility / NM1-006
Address: 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No.: 575-393-1079

RECEIVING AREA

Name/No. Sales

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

NAME (PRINT) DATE TITLE SIGNATURE

White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Man Contact Information

Name Amanda Davis

Phone No. [illegible]

GENERATOR

NO. 388939

Operator No.		Permit/RRC No. Lease/Well	
Operators Name	Devon Energy	Name & No.	Apache 33 #3
Address	6488 Penn Road	County	Eddy
		API No.	30-015-32719
City, State, Zip	Loco Hills, NM 88255	Rig Name & No.	WA
Phone No.	575-748-3371	AFE/PO No.	

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Muds		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Oil Based Cuttings		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Muds		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Water Based Cuttings		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Produced Formation Solids		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
Tank Bottoms		Truck Washout (exempt waste)		Bull	
E&P Contaminated Soil	20				
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☑ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount

All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other _____ *please select from **Non-Exempt Waste List** on back*

QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Robin Ivie Per Amanda Davis — (PRINT) AUTHORIZED AGENTS NAME

July 23, 2019 — DATE

[signature] — SIGNATURE

TRANSPORTER

Transporter's Name	Dale O Trucking	Driver's Name	[illegible]
Address	1116 E Walker Dr	Print Name	[illegible]
	Hobbs NM 88240	Phone No.	[illegible]
Phone No.	575 602 3332	Truck No.	03

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE — DRIVER'S SIGNATURE

7/23 — DELIVERY DATE

[signature] — DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN: _____ OUT: _____

DISPOSAL FACILITY

Site Name/ Permit No.	Halfway Facility / NM1-006
Address	6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No.	575-393-1079

RECEIVING AREA

Name/No. [illegible]

NORM READINGS TAKEN? (Circle One) YES NO If YES, was reading > 50 micro roentgens? (circle one) YES NO

PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

[illegible] — NAME (PRINT)

7/23 — DATE

[illegible] — TITLE

[signature] — SIGNATURE

C-138

White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY

NEW MEXICO NON-HAZARDOUS OILFIELD WASTE MANIFEST

(PLEASE PRINT)

Company Main Contact Information
Name Amanda Davis
Phone No. 575-748-1288

GENERATOR

NO. 388940

Operator No.
Operators Name Devon Energy
Address 6488 South Rivers Highway
City, State, Zip Artesia, New Mexico
Phone No. 575-390-1396

Permit/RRC No.
Lease/Well Name & No. Apache State 3
County Eddy
API No. 30-015-32719
Rig Name & No.
AFE/PO No. N/A

EXEMPT E&P Waste/Service Identification and Amount (place volume next to waste type in barrels or cubic yards)

Oil Based Muds		NON-INJECTABLE WATERS		INJECTABLE WATERS	
Oil Based Cuttings		Washout Water (Non-Injectable)		Washout Water (Injectable)	
Water Based Muds		Completion Fluid/Flow back (Non-Injectable)		Completion Fluid/Flow back (Injectable)	
Water Based Cuttings		Produced Water (Non-Injectable)		Produced Water (Injectable)	
Produced Formation Solids		Gathering Line Water/Waste (Non-Injectable)		Gathering Line Water/Waste (Injectable)	
Tank Bottoms		INTERNAL USE ONLY		OTHER EXEMPT WASTES (type and generation process of the waste)	
E&P Contaminated Soil	20	Truck Washout (exempt waste)			
Gas Plant Waste					

WASTE GENERATION PROCESS: ☐ DRILLING ☐ COMPLETION ☐ PRODUCTION ☐ GATHERING LINES

NON-EXEMPT E&P Waste/Service Identification and Amount
All non-exempt E&P waste must be analysed and be below the threshold limits for toxicity (TCLP), Ignitability, Corrosivity and Reactivity.

Non-Exempt Other *please select from **Non-Exempt Waste List** on back

QUANTITY 20 B - BARRELS L - LIQUID Y - YARDS E - EACH

I hereby certify that according to the Resource Conservation and Recovery Act (RCRA) and the US Environmental Protection Agency's July 1988 regulatory determination, the above described waste load is (Check the appropriate classification)

☑ RCRA EXEMPT: Oil field wastes generated from oil and gas exploration and production operations and are not mixed with non-exempt waste (R360 Accepts certifications on a per load basis only)

☐ RCRA NON-EXEMPT: Oil field waste which is non-hazardous that does not exceed the minimum standards for waste hazardous by characteristics established in RCRA regulations, 40 CFR 261.21-261.24, or listed hazardous waste as defined by 40 CFR, part 261, subpart D, as amended. The following documentation demonstrating the waste as non-hazardous is attached. (Check the appropriate items as provided)

☐ MSDS Information ☐ RCRA Hazardous Waste Analysis ☐ Other (Provide Description Below)

☐ EMERGENCY NON-OILFEILD: Emergency non-hazradous, non-oilfeild waste that has been ordered by the Department of Public Safety (the order, documentation of non-hazardous waste determination and a desciption of the waste must accompany this form)

Robert Sloan for Amanda Davis — (PRINT) AUTHORIZED AGENTS NAME
July 13, 2019 — DATE
Edward Mendoza — SIGNATURE

TRANSPORTER

Transporter's Name Double O Trucking
Address 1116 E. Walker
Phone No.
Driver's Name Edward Mendoza
Print Name Edward Mendoza
Phone No. 575-262-8505
Truck No. 14

I hereby certify that the above named material(s) was/were picked up at the Generator's site listed above and delivered without incident to the disposal facility listed below.

SHIPMENT DATE — DRIVER'S SIGNATURE
7/23 — DELIVERY DATE
Edward Mendoza — DRIVER'S SIGNATURE

TRUCK TIME STAMP

IN: OUT:

DISPOSAL FACILITY

Site Name/Permit No. Halfway Facility / NM1-006
Address 6601 Hobbs Hwy US 62/180 Mile Marker 66 Carlsbad, NM 88220
Phone No. 575-393-1079

RECEIVING AREA

Name/No. 3071

NORM READINGS TAKEN? (Circle One) YES NO
If YES, was reading > 50 micro roentgens? (circle one) YES NO
PASS THE PAINT FILTER TEST? (Circle One) YES NO

TANK BOTTOMS

	Feet	Inches
1st Gauge		
2nd Gauge		
Received		

BS&W/BBLS Received		BS&W (%)	
Free Water			
Total Received			

I hereby certify that the above load material has been (circle one): ACCEPTED DENIED If denied, why?

[illegible] — NAME (PRINT)
7/23 — DATE
Acct Tech — TITLE
[signature] — SIGNATURE

C-138 White - R360 ORIGINAL Yellow - TRANSPORTER COPY Pink - GENERATOR SITE COPY Gold - RETURN TO GENERATOR Version 1

ATTACHMENT 6

Table 3. Soil Characterization - Salinity and Petroleum Hydrocarbon Parameters
Client Name: Devon Energy
Site Name: Apache 25 Federal #003
Project #: 19E-00575-016
Lab Report(s): 1907726

Table 3. Soil Analysis - July 8, 2019																				
Sample Description			Field Screening			Petroleum Hydrocarbons														Inorganic
						Volatile							Extractable							
Sample ID	Depth (ft)	Sample Date	Volatile Organic Compounds (PID)	Extractable Organic Compounds (PetroFla	Quantab Result (High/Low)	Benzene	Toluene	Ethylbenzene	Xylenes (o&m)	Xylenes (p)	Xylenes (Total)	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride
			(ppm)	(ppm)	(+/-)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BG19-01	**0**	**7/08/2019**	1	47	42	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
BG19-01	**2**	**7/08/2019**	1	48	241	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	240
TP19-01	**0.5**	**7/09/2019**	1	31	277	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	270
TP19-02	**0.5**	**7/09/2019**	1	109	59	ND	ND	ND	ND	ND	ND	ND	4.2	53	ND	57.2	57.2	69
TP19-03	**0.5**	**7/09/2019**	1	1,119	296	ND	ND	ND	ND	ND	0.43	0.43	21	120	62	141	203	210
TP19-04	**1**	**7/09/2019**	1	37	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP19-05	**1**	**7/09/2019**	1	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP19-06	**1**	**7/10/2019**	5	46	ND	ND	ND	ND	ND	ND	ND	ND	ND	15	ND	15	15	ND
TP19-07	**1**	**7/10/2019**	8	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP19-08	**1**	**7/10/2019**	13	78	ND	ND	ND	ND	ND	ND	ND	ND	ND	35	ND	35	35	ND
TP19-09	**0.5**	**7/09/2019**	5	111	ND	ND	ND	ND	ND	ND	ND	ND	ND	31	56	31	87	ND
TP19-10	**0.5**	**7/09/2019**	0	33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP19-11	**2**	**7/10/2019**	998	1,040	ND	ND	ND	ND	ND	ND	ND	ND	ND	710	300	710	1010	ND
TP19-12	**1**	**7/10/2019**	7	39	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP19-13	**3.5**	**7/12/2019**	4	270	74	ND	ND	ND	ND	ND	ND	ND	ND	31	ND	31	31	94
TP19-14	**2**	**7/12/2019**	1	35	86	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
TP19-15	**2**	**7/11/2019**	1,341	110	151	ND	ND	ND	ND	ND	ND	ND	ND	10	ND	ND	ND	130
TP19-16	**1**	**7/10/2019**	9	15	86	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	110
TP19-17	**1**	**7/10/2019**	2	0	86	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	62

Bold and Shaded indicates exceedance outside of applied action level.

VERTEX

ATTACHMENT 7

From: Dennis Williams
To: Robyn Fisher; Kathlene Meadows
Subject: Fwd: Devon Energy - Apache 25 Federal #003 - 2RP-5435 - Confirmatory sample notification
Date: July 18, 2019 8:18:39 AM

From: Dennis Williams

Sent: Monday, July 8, 2019 6:56:16 AM

To: Bratcher, Mike, EMNRD; Hamlet, Robert, EMNRD; Venegas, Victoria, EMNRD

Cc: amanda.davis@dvn.com; Bynum, Tom (Contract); Dhugal Hanton; Almager, Steve

Subject: Devon Energy - Apache 25 Federal #003 - 2RP-5435 - Confirmatory sample notification

Good morning All,

Please accept this email as 48hr notification that Vertex Resource Services Inc. has scheduled final confirmatory sampling at the above named location on July 9th 2019 at 8:00 am. Austin Harris from Vertex will be on site performing the sampling and can be reached at 432-250-5003. If you need assistance with directions to site please do not hesitate to contact them.

If you have any other questions or concerns, please do not hesitate to contact me.

ATTACHMENT 8

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

July 18, 2019

Dennis Williams

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 888210
TEL: (575) 748-0176
FAX

RE: Apache 25 Fed 3 OrderNo.: 1907726

Dear Dennis Williams:

Hall Environmental Analysis Laboratory received 19 sample(s) on 7/16/2019 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Apache 25 Fed 3
Lab ID: 1907726-001 **Matrix:** MEOH (SOIL)

Client Sample ID: BG19-01 0.0'
Collection Date: 7/8/2019 10:00:00 AM
Received Date: 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	10		mg/Kg	1	7/16/2019 11:01:14 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/16/2019 11:01:14 AM
Surr: DNOP	93.4	70-130		%Rec	1	7/16/2019 11:01:14 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	7/16/2019 10:48:03 AM
Surr: BFB	107	73.8-119		%Rec	1	7/16/2019 10:48:03 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.019		mg/Kg	1	7/16/2019 10:48:03 AM
Toluene	ND	0.039		mg/Kg	1	7/16/2019 10:48:03 AM
Ethylbenzene	ND	0.039		mg/Kg	1	7/16/2019 10:48:03 AM
Xylenes, Total	ND	0.078		mg/Kg	1	7/16/2019 10:48:03 AM
Surr: 4-Bromofluorobenzene	90.6	80-120		%Rec	1	7/16/2019 10:48:03 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 12:15:54 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 Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** BG19-01 2.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/8/2019 10:00:00 AM
Lab ID: 1907726-002 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	7/16/2019 11:25:27 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2019 11:25:27 AM
Surr: DNOP	98.3	70-130		%Rec	1	7/16/2019 11:25:27 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.8		mg/Kg	1	7/16/2019 11:10:45 AM
Surr: BFB	96.5	73.8-119		%Rec	1	7/16/2019 11:10:45 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.019		mg/Kg	1	7/16/2019 11:10:45 AM
Toluene	ND	0.038		mg/Kg	1	7/16/2019 11:10:45 AM
Ethylbenzene	ND	0.038		mg/Kg	1	7/16/2019 11:10:45 AM
Xylenes, Total	ND	0.076		mg/Kg	1	7/16/2019 11:10:45 AM
Surr: 4-Bromofluorobenzene	81.4	80-120		%Rec	1	7/16/2019 11:10:45 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	240	60		mg/Kg	20	7/16/2019 12:28:19 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-01 0.5'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 10:00:00 AM
Lab ID: 1907726-003 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	7/16/2019 11:49:38 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/16/2019 11:49:38 AM
Surr: DNOP	97.0	70-130		%Rec	1	7/16/2019 11:49:38 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	7/16/2019 11:33:31 AM
Surr: BFB	101	73.8-119		%Rec	1	7/16/2019 11:33:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.017		mg/Kg	1	7/16/2019 11:33:31 AM
Toluene	ND	0.034		mg/Kg	1	7/16/2019 11:33:31 AM
Ethylbenzene	ND	0.034		mg/Kg	1	7/16/2019 11:33:31 AM
Xylenes, Total	ND	0.069		mg/Kg	1	7/16/2019 11:33:31 AM
Surr: 4-Bromofluorobenzene	89.5	80-120		%Rec	1	7/16/2019 11:33:31 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	270	60		mg/Kg	20	7/16/2019 12:40:43 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-02 0.5'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 10:30:00 AM
Lab ID: 1907726-004 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	53	9.7		mg/Kg	1	7/16/2019 12:13:56 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2019 12:13:56 PM
Surr: DNOP	112	70-130		%Rec	1	7/16/2019 12:13:56 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	4.2	3.8		mg/Kg	1	7/16/2019 11:56:17 AM
Surr: BFB	156	73.8-119	S	%Rec	1	7/16/2019 11:56:17 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.019		mg/Kg	1	7/16/2019 11:56:17 AM
Toluene	ND	0.038		mg/Kg	1	7/16/2019 11:56:17 AM
Ethylbenzene	ND	0.038		mg/Kg	1	7/16/2019 11:56:17 AM
Xylenes, Total	ND	0.077		mg/Kg	1	7/16/2019 11:56:17 AM
Surr: 4-Bromofluorobenzene	96.9	80-120		%Rec	1	7/16/2019 11:56:17 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	69	60		mg/Kg	20	7/16/2019 12:53:08 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-03 0.5'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 11:00:00 AM
Lab ID: 1907726-005 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	120	9.7		mg/Kg	1	7/16/2019 11:08:27 AM
Motor Oil Range Organics (MRO)	62	49		mg/Kg	1	7/16/2019 11:08:27 AM
Surr: DNOP	95.0	70-130		%Rec	1	7/16/2019 11:08:27 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	21	20		mg/Kg	5	7/16/2019 12:19:04 PM
Surr: BFB	151	73.8-119	S	%Rec	5	7/16/2019 12:19:04 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.10		mg/Kg	5	7/16/2019 12:19:04 PM
Toluene	ND	0.20		mg/Kg	5	7/16/2019 12:19:04 PM
Ethylbenzene	ND	0.20		mg/Kg	5	7/16/2019 12:19:04 PM
Xylenes, Total	0.43	0.40		mg/Kg	5	7/16/2019 12:19:04 PM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	5	7/16/2019 12:19:04 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	210	60		mg/Kg	20	7/16/2019 1:05:33 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-04 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 12:00:00 PM
Lab ID: 1907726-006 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	7/16/2019 11:30:39 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/16/2019 11:30:39 AM
Surr: DNOP	90.9	70-130		%Rec	1	7/16/2019 11:30:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.0		mg/Kg	1	7/16/2019 12:41:52 PM
Surr: BFB	107	73.8-119		%Rec	1	7/16/2019 12:41:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.020		mg/Kg	1	7/16/2019 12:41:52 PM
Toluene	ND	0.040		mg/Kg	1	7/16/2019 12:41:52 PM
Ethylbenzene	ND	0.040		mg/Kg	1	7/16/2019 12:41:52 PM
Xylenes, Total	ND	0.080		mg/Kg	1	7/16/2019 12:41:52 PM
Surr: 4-Bromofluorobenzene	96.0	80-120		%Rec	1	7/16/2019 12:41:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 1:17:58 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-05 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 12:30:00 PM
Lab ID: 1907726-007 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/16/2019 11:53:01 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2019 11:53:01 AM
Surr: DNOP	87.5	70-130		%Rec	1	7/16/2019 11:53:01 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	7/16/2019 1:04:41 PM
Surr: BFB	105	73.8-119		%Rec	1	7/16/2019 1:04:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.022		mg/Kg	1	7/16/2019 1:04:41 PM
Toluene	ND	0.043		mg/Kg	1	7/16/2019 1:04:41 PM
Ethylbenzene	ND	0.043		mg/Kg	1	7/16/2019 1:04:41 PM
Xylenes, Total	ND	0.086		mg/Kg	1	7/16/2019 1:04:41 PM
Surr: 4-Bromofluorobenzene	93.4	80-120		%Rec	1	7/16/2019 1:04:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 1:30:22 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 Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-09 0.5'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 1:00:00 PM
Lab ID: 1907726-008 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	31	9.3		mg/Kg	1	7/16/2019 12:15:26 PM
Motor Oil Range Organics (MRO)	56	47		mg/Kg	1	7/16/2019 12:15:26 PM
Surr: DNOP	96.8	70-130		%Rec	1	7/16/2019 12:15:26 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	7/16/2019 1:27:30 PM
Surr: BFB	105	73.8-119		%Rec	1	7/16/2019 1:27:30 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.021		mg/Kg	1	7/16/2019 1:27:30 PM
Toluene	ND	0.042		mg/Kg	1	7/16/2019 1:27:30 PM
Ethylbenzene	ND	0.042		mg/Kg	1	7/16/2019 1:27:30 PM
Xylenes, Total	ND	0.084		mg/Kg	1	7/16/2019 1:27:30 PM
Surr: 4-Bromofluorobenzene	92.7	80-120		%Rec	1	7/16/2019 1:27:30 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 2:07:35 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 Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-10 0.5'
Project: Apache 25 Fed 3 **Collection Date:** 7/9/2019 1:30:00 PM
Lab ID: 1907726-009 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/16/2019 12:37:55 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2019 12:37:55 PM
Surr: DNOP	101	70-130		%Rec	1	7/16/2019 12:37:55 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.7		mg/Kg	1	7/16/2019 1:50:22 PM
Surr: BFB	104	73.8-119		%Rec	1	7/16/2019 1:50:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.018		mg/Kg	1	7/16/2019 1:50:22 PM
Toluene	ND	0.037		mg/Kg	1	7/16/2019 1:50:22 PM
Ethylbenzene	ND	0.037		mg/Kg	1	7/16/2019 1:50:22 PM
Xylenes, Total	ND	0.073		mg/Kg	1	7/16/2019 1:50:22 PM
Surr: 4-Bromofluorobenzene	92.2	80-120		%Rec	1	7/16/2019 1:50:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 2:20:00 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 Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-16 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 9:00:00 AM
Lab ID: 1907726-010 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/16/2019 1:00:06 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2019 1:00:06 PM
Surr: DNOP	92.1	70-130		%Rec	1	7/16/2019 1:00:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.3		mg/Kg	1	7/16/2019 2:13:14 PM
Surr: BFB	106	73.8-119		%Rec	1	7/16/2019 2:13:14 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.021		mg/Kg	1	7/16/2019 2:13:14 PM
Toluene	ND	0.043		mg/Kg	1	7/16/2019 2:13:14 PM
Ethylbenzene	ND	0.043		mg/Kg	1	7/16/2019 2:13:14 PM
Xylenes, Total	ND	0.086		mg/Kg	1	7/16/2019 2:13:14 PM
Surr: 4-Bromofluorobenzene	93.7	80-120		%Rec	1	7/16/2019 2:13:14 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	110	60		mg/Kg	20	7/16/2019 2:32:24 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-17 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 10:00:00 AM
Lab ID: 1907726-011 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	7/16/2019 1:22:18 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2019 1:22:18 PM
Surr: DNOP	91.4	70-130		%Rec	1	7/16/2019 1:22:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	7/16/2019 10:53:00 AM
Surr: BFB	96.6	73.8-119		%Rec	1	7/16/2019 10:53:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.023		mg/Kg	1	7/16/2019 10:53:00 AM
Toluene	ND	0.047		mg/Kg	1	7/16/2019 10:53:00 AM
Ethylbenzene	ND	0.047		mg/Kg	1	7/16/2019 10:53:00 AM
Xylenes, Total	ND	0.094		mg/Kg	1	7/16/2019 10:53:00 AM
Surr: 4-Bromofluorobenzene	99.1	80-120		%Rec	1	7/16/2019 10:53:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	62	59		mg/Kg	20	7/16/2019 2:44:49 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-08 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 11:00:00 AM
Lab ID: 1907726-012 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	35	9.7		mg/Kg	1	7/16/2019 1:44:32 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	7/16/2019 1:44:32 PM
Surr: DNOP	94.7	70-130		%Rec	1	7/16/2019 1:44:32 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	7/16/2019 11:16:34 AM
Surr: BFB	96.6	73.8-119		%Rec	1	7/16/2019 11:16:34 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.019		mg/Kg	1	7/16/2019 11:16:34 AM
Toluene	ND	0.039		mg/Kg	1	7/16/2019 11:16:34 AM
Ethylbenzene	ND	0.039		mg/Kg	1	7/16/2019 11:16:34 AM
Xylenes, Total	ND	0.078		mg/Kg	1	7/16/2019 11:16:34 AM
Surr: 4-Bromofluorobenzene	98.7	80-120		%Rec	1	7/16/2019 11:16:34 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	59		mg/Kg	20	7/16/2019 2:57:14 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-12 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 11:35:00 AM
Lab ID: 1907726-013 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	8.7		mg/Kg	1	7/16/2019 2:07:05 PM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	7/16/2019 2:07:05 PM
Surr: DNOP	86.8	70-130		%Rec	1	7/16/2019 2:07:05 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.9		mg/Kg	1	7/16/2019 11:40:06 AM
Surr: BFB	98.1	73.8-119		%Rec	1	7/16/2019 11:40:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.020		mg/Kg	1	7/16/2019 11:40:06 AM
Toluene	ND	0.039		mg/Kg	1	7/16/2019 11:40:06 AM
Ethylbenzene	ND	0.039		mg/Kg	1	7/16/2019 11:40:06 AM
Xylenes, Total	ND	0.079		mg/Kg	1	7/16/2019 11:40:06 AM
Surr: 4-Bromofluorobenzene	101	80-120		%Rec	1	7/16/2019 11:40:06 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 1:05:35 PM

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

Qualifiers:

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

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-06 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 12:00:00 PM
Lab ID: 1907726-014 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	15	9.2		mg/Kg	1	7/16/2019 2:29:15 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2019 2:29:15 PM
Surr: DNOP	87.4	70-130		%Rec	1	7/16/2019 2:29:15 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	7/16/2019 12:03:36 PM
Surr: BFB	95.9	73.8-119		%Rec	1	7/16/2019 12:03:36 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.017		mg/Kg	1	7/16/2019 12:03:36 PM
Toluene	ND	0.034		mg/Kg	1	7/16/2019 12:03:36 PM
Ethylbenzene	ND	0.034		mg/Kg	1	7/16/2019 12:03:36 PM
Xylenes, Total	ND	0.068		mg/Kg	1	7/16/2019 12:03:36 PM
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	7/16/2019 12:03:36 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 1:17:59 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 Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-07 1.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 12:45:00 PM
Lab ID: 1907726-015 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.7		mg/Kg	1	7/16/2019 2:15:46 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	7/16/2019 2:15:46 PM
Surr: DNOP	99.0	70-130		%Rec	1	7/16/2019 2:15:46 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	7/16/2019 12:27:10 PM
Surr: BFB	98.7	73.8-119		%Rec	1	7/16/2019 12:27:10 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.017		mg/Kg	1	7/16/2019 12:27:10 PM
Toluene	ND	0.034		mg/Kg	1	7/16/2019 12:27:10 PM
Ethylbenzene	ND	0.034		mg/Kg	1	7/16/2019 12:27:10 PM
Xylenes, Total	ND	0.067		mg/Kg	1	7/16/2019 12:27:10 PM
Surr: 4-Bromofluorobenzene	102	80-120		%Rec	1	7/16/2019 12:27:10 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 1:30:24 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 Limit
S	% Recovery outside of range due to dilution or matrix

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-11 2.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/10/2019 1:00:00 PM
Lab ID: 1907726-016 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	710	9.6		mg/Kg	1	7/16/2019 12:38:07 PM
Motor Oil Range Organics (MRO)	300	48		mg/Kg	1	7/16/2019 12:38:07 PM
Surr: DNOP	113	70-130		%Rec	1	7/16/2019 12:38:07 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	18		mg/Kg	5	7/16/2019 12:50:46 PM
Surr: BFB	134	73.8-119	S	%Rec	5	7/16/2019 12:50:46 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.092		mg/Kg	5	7/16/2019 12:50:46 PM
Toluene	ND	0.18		mg/Kg	5	7/16/2019 12:50:46 PM
Ethylbenzene	ND	0.18		mg/Kg	5	7/16/2019 12:50:46 PM
Xylenes, Total	ND	0.37		mg/Kg	5	7/16/2019 12:50:46 PM
Surr: 4-Bromofluorobenzene	107	80-120		%Rec	5	7/16/2019 12:50:46 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	7/16/2019 1:42:48 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-15 2.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/11/2019 1:25:00 PM
Lab ID: 1907726-017 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	10	10		mg/Kg	1	7/16/2019 1:02:34 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/16/2019 1:02:34 PM
Surr: DNOP	90.7	70-130		%Rec	1	7/16/2019 1:02:34 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.2		mg/Kg	1	7/16/2019 1:14:27 PM
Surr: BFB	102	73.8-119		%Rec	1	7/16/2019 1:14:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.021		mg/Kg	1	7/16/2019 1:14:27 PM
Toluene	ND	0.042		mg/Kg	1	7/16/2019 1:14:27 PM
Ethylbenzene	ND	0.042		mg/Kg	1	7/16/2019 1:14:27 PM
Xylenes, Total	ND	0.085		mg/Kg	1	7/16/2019 1:14:27 PM
Surr: 4-Bromofluorobenzene	104	80-120		%Rec	1	7/16/2019 1:14:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	130	60		mg/Kg	20	7/16/2019 2:20:02 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 Limit
S	% Recovery outside of range due to dilution or matrix		

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-14 2.0'
Project: Apache 25 Fed 3 **Collection Date:** 7/12/2019 2:00:00 PM
Lab ID: 1907726-018 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	7/16/2019 1:26:53 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	7/16/2019 1:26:53 PM
Surr: DNOP	102	70-130		%Rec	1	7/16/2019 1:26:53 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	3.4		mg/Kg	1	7/16/2019 1:38:05 PM
Surr: BFB	108	73.8-119		%Rec	1	7/16/2019 1:38:05 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.017		mg/Kg	1	7/16/2019 1:38:05 PM
Toluene	ND	0.034		mg/Kg	1	7/16/2019 1:38:05 PM
Ethylbenzene	ND	0.034		mg/Kg	1	7/16/2019 1:38:05 PM
Xylenes, Total	ND	0.068		mg/Kg	1	7/16/2019 1:38:05 PM
Surr: 4-Bromofluorobenzene	112	80-120		%Rec	1	7/16/2019 1:38:05 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	61		mg/Kg	20	7/16/2019 2:32:26 PM

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

Qualifiers:

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

Analytical Report
Lab Order **1907726**
Date Reported: **7/18/2019**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy **Client Sample ID:** TP19-13 3.5'
Project: Apache 25 Fed 3 **Collection Date:** 7/12/2019 3:30:00 PM
Lab ID: 1907726-019 **Matrix:** MEOH (SOIL) **Received Date:** 7/16/2019 9:15:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **BRM**
Diesel Range Organics (DRO)	31	9.2		mg/Kg	1	7/16/2019 1:51:22 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	7/16/2019 1:51:22 PM
Surr: DNOP	109	70-130		%Rec	1	7/16/2019 1:51:22 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.4		mg/Kg	1	7/16/2019 2:01:44 PM
Surr: BFB	107	73.8-119		%Rec	1	7/16/2019 2:01:44 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.022		mg/Kg	1	7/16/2019 2:01:44 PM
Toluene	ND	0.044		mg/Kg	1	7/16/2019 2:01:44 PM
Ethylbenzene	ND	0.044		mg/Kg	1	7/16/2019 2:01:44 PM
Xylenes, Total	ND	0.089		mg/Kg	1	7/16/2019 2:01:44 PM
Surr: 4-Bromofluorobenzene	103	80-120		%Rec	1	7/16/2019 2:01:44 PM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	94	60		mg/Kg	20	7/16/2019 2:44:51 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 Limit
S	% Recovery outside of range due to dilution or matrix		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907726**

18-Jul-19

Client: Devon Energy

Project: Apache 25 Fed 3

Sample ID: **MB-46203** SampType: **MBLK** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **46203** RunNo: **61410**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2082563** Units: **mg/Kg**

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

Sample ID: **LCS-46203** SampType: **LCS** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **46203** RunNo: **61410**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2082564** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.7	90	110			

Sample ID: **MB-46200** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **46200** RunNo: **61409**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2082630** Units: **mg/Kg**

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

Sample ID: **LCS-46200** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **46200** RunNo: **61409**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2082631** 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.
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#: **1907726**

18-Jul-19

Client: Devon Energy

Project: Apache 25 Fed 3

Sample ID: **LCS-46194** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **46194** RunNo: **61390**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2081502** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	54	10	50.00	0	107	63.9	124			
Surr: DNOP	4.6		5.000		92.0	70	130			

Sample ID: **MB-46194** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **46194** RunNo: **61390**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2081503** 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	9.8		10.00		97.7	70	130			

Sample ID: **1907726-001AMS** SampType: **MS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BG19-01 0.0'** Batch ID: **46194** RunNo: **61390**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2082514** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	45	9.2	46.17	0	97.2	57	142			
Surr: DNOP	4.0		4.617		86.5	70	130			

Sample ID: **1907726-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **BG19-01 0.0'** Batch ID: **46194** RunNo: **61390**

Prep Date: **7/16/2019** Analysis Date: **7/16/2019** SeqNo: **2082515** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	50	9.9	49.50	0	101	57	142	10.5	20	
Surr: DNOP	4.2		4.950		84.8	70	130	0	0	

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1907726**
18-Jul-19

Client: Devon Energy
Project: Apache 25 Fed 3

Sample ID: **RB** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **G61408** RunNo: **61408**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081927** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		104	73.8	119			

Sample ID: **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **G61408** RunNo: **61408**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081928** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	24	5.0	25.00	0	96.0	80.1	123			
Surr: BFB	1200		1000		120	73.8	119			S

Sample ID: **1907726-001AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG19-01 0.0'** Batch ID: **G61408** RunNo: **61408**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081929** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	19	3.9	19.38	0	97.7	69.1	142			
Surr: BFB	940		775.2		121	73.8	119			S

Sample ID: **1907726-001AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BG19-01 0.0'** Batch ID: **G61408** RunNo: **61408**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081930** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	18	3.9	19.38	0	92.3	69.1	142	5.73	20	
Surr: BFB	1800		775.2		233	73.8	119	0	0	S

Sample ID: **RB** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **G61407** RunNo: **61407**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081963** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	ND	5.0								
Surr: BFB	1000		1000		102	73.8	119			

Sample ID: **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **G61407** RunNo: **61407**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081964** Units: **mg/Kg**

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

Qualifiers:

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

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **1907726**
18-Jul-19

Client: Devon Energy
Project: Apache 25 Fed 3

Sample ID: **2.5UG GRO LCS** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **G61407** RunNo: **61407**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081964** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	5.0	25.00	0	83.6	80.1	123			
Surr: BFB	1100		1000		106	73.8	119			

Sample ID: **1907726-011AMS** SampType: **MS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **TP19-17 1.0'** Batch ID: **G61407** RunNo: **61407**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081965** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.7	23.50	0	96.0	69.1	142			
Surr: BFB	1000		939.8		111	73.8	119			

Sample ID: **1907726-011AMSD** SampType: **MSD** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **TP19-17 1.0'** Batch ID: **G61407** RunNo: **61407**
Prep Date: Analysis Date: **7/16/2019** SeqNo: **2081966** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	22	4.7	23.50	0	92.9	69.1	142	3.30	20	
Surr: BFB	1000		939.8		107	73.8	119	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#: **1907726**

18-Jul-19

Client: Devon Energy

Project: Apache 25 Fed 3

Sample ID: **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B61408**	RunNo: **61408**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081942** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	ND	0.025								
Toluene	ND	0.050								
Ethylbenzene	ND	0.050								
Xylenes, Total	ND	0.10								
Surr: 4-Bromofluorobenzene	0.94		1.000		94.5	80	120			

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B61408**	RunNo: **61408**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081943** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	1.000	0	96.8	80	120			
Toluene	0.96	0.050	1.000	0	96.2	80	120			
Ethylbenzene	0.95	0.050	1.000	0	95.3	80	120			
Xylenes, Total	2.9	0.10	3.000	0	96.7	80	120			
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120			

Sample ID: **1907726-002AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BG19-01 2.0'**	Batch ID: **B61408**	RunNo: **61408**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081944** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.72	0.019	0.7564	0	94.6	63.9	127			
Toluene	0.74	0.038	0.7564	0.003139	98.0	69.9	131			
Ethylbenzene	0.72	0.038	0.7564	0	95.6	71	132			
Xylenes, Total	2.2	0.076	2.269	0	95.4	71.8	131			
Surr: 4-Bromofluorobenzene	0.76		0.7564		99.9	80	120			

Sample ID: **1907726-002AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BG19-01 2.0'**	Batch ID: **B61408**	RunNo: **61408**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081945** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.69	0.019	0.7564	0	91.0	63.9	127	3.88	20	
Toluene	0.70	0.038	0.7564	0.003139	92.7	69.9	131	5.51	20	
Ethylbenzene	0.69	0.038	0.7564	0	91.2	71	132	4.67	20	
Xylenes, Total	2.1	0.076	2.269	0	91.6	71.8	131	4.06	20	
Surr: 4-Bromofluorobenzene	0.74		0.7564		98.2	80	120	0	0	

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **1907726**

18-Jul-19

Client: Devon Energy

Project: Apache 25 Fed 3

Sample ID: **RB**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **B61407**	RunNo: **61407**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081992** Units: **mg/Kg**

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

Sample ID: **100NG BTEX LCS**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **B61407**	RunNo: **61407**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081993** 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	103	80	120			
Toluene	1.1	0.050	1.000	0	109	80	120			
Ethylbenzene	1.1	0.050	1.000	0	111	80	120			
Xylenes, Total	3.3	0.10	3.000	0	111	80	120			
Surr: 4-Bromofluorobenzene	1.1		1.000		111	80	120			

Sample ID: **1907726-012AMS**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TP19-08 1.0'**	Batch ID: **B61407**	RunNo: **61407**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081994** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.77	0.019	0.7752	0	99.4	63.9	127			
Toluene	0.81	0.039	0.7752	0	105	69.9	131			
Ethylbenzene	0.82	0.039	0.7752	0	105	71	132			
Xylenes, Total	2.4	0.078	2.326	0	105	71.8	131			
Surr: 4-Bromofluorobenzene	0.78		0.7752		101	80	120			

Sample ID: **1907726-012AMSD**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **TP19-08 1.0'**	Batch ID: **B61407**	RunNo: **61407**
Prep Date:	Analysis Date: **7/16/2019**	SeqNo: **2081995** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.80	0.019	0.7752	0	103	63.9	127	3.78	20	
Toluene	0.82	0.039	0.7752	0	106	69.9	131	1.17	20	
Ethylbenzene	0.81	0.039	0.7752	0	105	71	132	0.829	20	
Xylenes, Total	2.4	0.078	2.326	0	103	71.8	131	1.73	20	
Surr: 4-Bromofluorobenzene	0.79		0.7752		101	80	120	0	0	

Qualifiers:

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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: **DEVON ENERGY** Work Order Number: **1907726** RcptNo: 1

Received By: **Leah Baca** **7/16/2019 9:15:00 AM** Leah SBaca

Completed By: **Leah Baca** **7/16/2019 9:22:01 AM** Leah SBaca

Reviewed By: ENM 7/16/19

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: DAD 7/16/19

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	4.7	Good	Yes			

Chain-of-Custody Record

Client: Devon

Mailing Address: 6488 Seven Rivers HWY
Artesia, NM 88210

Phone #: 575-748-0176

email or Fax#: amanda.dennis@dvn.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☒ Rush SAME DAY

Project Name: Apache 25 Fed 3

Project #: 19E-00575

Project Manager: Dennis Williams
Permian@vertex.ca

Sampler: AUSTIN HARRIS

On Ice: ☒ Yes ☐ No

# of Coolers: (1)

Cooler Temp(including CF): 4.6 + CF = 4.7 C

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

Analysis Request

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1907726	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)
7/8/19	10:00A	Soil	BG19-01 0.0'	1 JAR	ICE	-001	X	X					X			
7/8/19	10:00A		BG19-01 2.0'			-002	X	X					X			
7/9/19	10:00A		TP19-01 0.5'			-003	X	X					X			
7/9/19	10:30A		TP19-02 0.5'			-004	X	X					X			
7/9/19	11:00A		TP19-03 0.5'			-005	X	X					X			
7/9/19	12:00P		TP19-04 1.0'			-006	X	X					X			
7/9/19	12:30P		TP19-05 1.0'			-007	X	X					X			
7/9/19	1:00P		TP19-09 0.5'			-008	X	X					X			
7/9/19	1:30P		TP19-10 0.5'			-009	X	X					X			
7/10/19	9:00A		TP19-16 1.0'			-010	X	X					X			
7/10/19	10:A	↓	TP19-17 1.0'	↓	↓	-011	X	X					X			
7/10/19	11:00A		TP19-08 1.0'			-012	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/13/19	7:30A				7-13-19	7:30AM
7/13/19	1010				7/13/19	1010
7/15/19	1900				7/16/19	0915

Remarks: 1 of 2

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

Chain-of-Custody Record

Client: Devon

Mailing Address: 6488 Seven Rivers HWY
Artesia, NM 88210

Phone #: 575-748-0176

email or Fax#: amanda.davis@dvn.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: Same Day
☐ Standard ☒ Rush

Project Name: Apache 25 Fed 3

Project #: 19E-00575

Project Manager: Dennis Williams
Permian@vertex.ca

Sampler: Austin Harris

On Ice: ☒ Yes ☐ No

# of Coolers: (1)

Cooler Temp(including CF): 4.6 + 0.1 = 4.7C

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

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 1907726	Analysis Request: 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)
7/10	11:35	SOIL	TP19-12 1.0'	#1 Jar	ICE	-013	X	X					X			
	12:00		TP19-06 1.0'			-014	X	X					X			
	12:45		TP19-07 1.0'			-015	X	X					X			
	13:00		TP19-11 2.0'			-016	X	X					X			
7/11	13:25		TP19-15 2.0'			-017	X	X					X			
7/12	14:00		TP19-14 2.0'			-018	X	X					X			
7/12	15:30		TP19-13 3.5'			-019	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
7/13/19	7:30				7-13-19	7:30 AM
7/13/19	1010				7/13/19	1010
7/15/19	1900				7/16/19	095

Remarks: 2 of 2

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

State of New Mexico
Oil Conservation Division

Incident ID	NAB1914252088
District RP	2RP-5435
Facility ID	fAB1914250820
Application ID	pAB19250914

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?	413 (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	NAB1914252088
District RP	2RP-5435
Facility ID	fAB1914250820
Application ID	pAB1914250914

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: Amanda Davis Title: Environmental Representative

Signature: Amanda Trujillo Davis Date: _____

email: amanda.davis@dvn.com Telephone: 575-748-0176

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1914252088
District RP	2RP-5435
Facility ID	fAB1914250820
Application ID	pAB1914250914

Remediation Plan

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

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

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

- [ ] Contamination must be in areas immediately under or around production equipment where remediation could cause a major facility deconstruction.
- [ ] Extents of contamination must be fully delineated.
- [ ] Contamination does not cause an imminent risk to human health, the environment, or groundwater.

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

Printed Name: Amanda Davis Title: Environmental Representative

Signature: Amanda Trujillo Davis Date: 12/19/2019

email: amanda.davis@dvn.com Telephone: 575-748-0176

OCD Only

Received by: _____ Date: _____

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

Signature: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	NAB1914252088
District RP	2RP-5435
Facility ID	fAB1914250820
Application ID	pAB1914250914

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.***

[x] A scaled site and sampling diagram as described in 19.15.29.11 NMAC

[x] 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)

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

[x] 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: Amanda Davis Title: Environmental Representative

Signature: Amanda Trujillo Davis Date: 12/19/2019

email: amanda.davis@dvn.com Telephone: 575-748-0176

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: _____

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 215495

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 215495
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
rhamlet	We have received your closure report and final C-141 for Incident #NAB1914252088 APACHE 25 FEDERAL #3 BATTERY, thank you. This closure is approved.	10/2/2023