HRL COMPLIANCE SOLUTIONS
P.O. Box 1708 • Artesia, NM 88211
www.hrlcomp.com

June 4, 2020

Mr. Tom Bynum
Devon Energy
6488 Seven Rivers Highway
Artesia, New Mexico 88211
Email: tom.bynum@dvn.com

Subject: **Site Characterization and Closure Report**
Cotton Draw Unit 172H (May 2016)
2RP-3683
Eddy County, New Mexico

Dear Mr. Bynum:

HRL Compliance Solutions, Inc. (HRL) is pleased to submit this site characterization and closure report for the May 6, 2016 release at the Cotton Draw Unit 172H (Site). The release was at latitude 32.151932353 and longitude -103.726815365 in Eddy County, New Mexico (Figure 1) (Attachment A, Photographs).

Site Background

On May 6, 2016, a release of 20 barrels (bbls) of produced water was observed at the Site. The release was due to equipment failure when a gasket blew out on the main water line between the valve and the pipe. The valves on each side of the line were immediately shut so the line could be bypassed and stop the flow of water. The produced water was released in the right-of-way, in a 75-foot square area south of the well pad. None of the produced water was recovered.

Because the volume released was between five bbls and 25 bbls; this is considered a minor release according to the New Mexico Oil Conservation Division (NMOCD). On May 9, 2016, Devon reported the release to the NMOCD on a Release Notification and Corrective Action Form (Form C-141) (Attachment B). The release was assigned Remediation Permit (RP) number 2RP-3683.

Scope of Work

Devon has requested HRL to provide the following deliverables:

- Research the information as specified in the Site Characterization on the New Mexico Oil and Conservation Division (NMOCD) Form C-141
- Prepare a map with sample points labeled
- Prepare a table summarizing the results obtained during the site characterization activities
- Prepare a site characterization report including a remediation plan per NMOCD closure requirements and related cost estimates

New Mexico Administrative Code (NMAC) Site Characterization Criteria

Title 19, Chapter 15, Part 29, Section 11 of the New Mexico Administrative Code (NMAC) provides requirements for release characterization once the free liquids and recoverable materials have been removed from the Site.

Depth to Groundwater

Depth to groundwater at the release was estimated by evaluating data from the New Mexico Office of the State Engineer (NMOSE) and the United States Geological Survey (USGS) (Figure 2). The nearest groundwater well was approximately 1 mile from the Site; the depth to water in this well was 390 feet below ground surface (bgs).

Wellhead Protection Area

There are no sources of water, including springs, wells, or other sources of fresh water, within one-half mile of the release (Figure 2).

Distance to Nearest Significant Watercourse

A significant watercourse is defined as "…a watercourse with a defined bed and bank either named or identified by a dashed blue line on a USGS 7.5-minute quadrangle map or the next lower order tributary with a defined bed and bank" (19.15.17.7 NMAC) (Figure 2). There are no significant watercourses within one-half mile of the lateral extents of the release.

Additional Site Characterization Criteria

The following is additional information related to characterization of the Site.

Site Characterization	Response/Discussion
What is the shallowest depth to groundwater beneath the area affected by the release?	Greater than 100 feet
Did the release impact groundwater or surface water?	No
Are the lateral extents of the release within 300 feet of a continuously flowing watercourse or other significant watercourse?	No
Are the lateral extents of the release within 200 feet of a lakebed, sinkhole, or playa lake?	No
Are the lateral extents of the release within 300 feet of an occupied permanent residence, school, hospital institution, or church?	No
Are the lateral extents of the release within 500 feet of a spring or private, domestic fresh water well used by less than five households for domestic or stock watering purposes?	No

Site Characterization	Response/Discussion
Are the lateral extents of the release within 1,000 feet of any fresh water well or spring?	No
Are the lateral extents of the release within any incorporated municipal boundaries?	No
Are the lateral extents of the release within a defined municipal fresh water well field?	No
Are the lateral extents of the release within 300 feet of a wetland?	No
Are the lateral extents of the release overlying a subsurface mine?	No
Are the lateral extents of the release overlying an unstable area such as karst geology?	The Site is in an area of low potential for karst topography
Are the lateral extents of the release within the 100-year floodplain?	No
Did the release impact areas not on an exploration, development, production, or storage site?	No

Site Delineation

Prior to initiating field activities, HRL submitted a mechanical excavation permit to Devon Energy and had subsurface utilities located at the Site. On March 8, 2020, HRL mobilized to the Site to evaluate the release. Soil samples were collected from nine locations (SP1 through SP9). The soil samples were collected from ground surface. To collect information for the vertical extent of the release, additional samples were collected from SP1 at two-inches below ground surface (bgs), SP3 at four inches bgs, SP5 at two inches bgs, SP5 at five inches bgs, SP7 at five inches bgs, SP9 at five inches, eight inches, and nine inches bgs. Samples were analyzed in the field (field screening) by one or more of the following methods:

- Chloride was approximated using an electrical conductivity (EC) meter in accordance with methods recommended by the U.S. Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS)
- Non-specific volatile organic compounds (VOCs) were measured using a photoionization detector (PID) with a 10.6 electron-volt (eV) lamp
- Total petroleum hydrocarbons (TPH) was measured using a PetroFlag® field test kit in accordance with U.S. Environmental Protection Agency (EPA) Method 9074

Field screening results indicated that electrical conductivity values ranged from 19 microsiemens per centimeter (µs/cm) to 3,100 µs/cm and PID values ranged from 3.2 parts per million (ppm) to 98.9 ppm.

Based on the field screening results, HRL mobilized to the Site on April 3, 2020 to collect soil samples for laboratory analysis. Six soil samples (SP9A, SP9B, SP10, SP11, SP12, SP13) were immediately placed on ice and kept under strict chain of custody protocol prior to submission to Hall Environmental Analysis Laboratory of Albuquerque, New Mexico for analysis of:

- Chloride by United States Environmental Protection Agency (US EPA) Method 300.0
- Benzene, toluene, ethyl benzene, and total xylenes (BTEX) by US EPA Method 8021B
- Total petroleum hydrocarbons (TPH) – gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) by US EPA Method 8015M

Closure Criteria

Based on the NMAC Site Characterization Criteria, HRL has applied the following NMOCD Closure Criteria to the release:

Depth to Groundwater	Parameter	Closure Criteria in milligrams per kilogram (mg/kg)
Greater than 100 feet below ground surface	Chloride	20,000 mg/kg or natural background, whichever is greater
	Total Petroleum Hydrocarbons (TPH) *[Gasoline Range Organics (GRO) + Diesel Range Organics (DRO) + Oil Range Organics (ORO)]*	2,500 mg/kg
	Gasoline Range Organics (GRO) + Diesel Range Organics (DRO)	1,000 mg/kg
	Benzene	10 mg/kg
	Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX)	50 mg/kg

Remediation and Reclamation

A scaled diagram depicting the area of investigation and nearby significant features, such as roads, site infrastructure, location of borings, sample points, monitoring wells (if present) and subsurface features (if data was available) has been prepared (Figure 3). HRL utilized a Trimble GeoXT global positioning system (GPS) unit to collect latitude and longitude data for the sample locations.

Chloride, benzene, toluene, ethylbenzene, total xylenes (BTEX), gasoline range organics (GRO), diesel range organics (DRO), and oil range organics (ORO) were not detected in the soil samples (Attachment B). Based on evaluation of the laboratory results of the soil samples, remediation of the impacted soil is not necessary.

Conclusions and Recommendations

Results of soil samples were below the applicable closure criteria specified in 19.15.29.12 NMAC. Therefore, additional remedial action is not necessary; HRL recommends closure of this release.

Scope and Limitations

The scope of HRL's services consists of performing site characterization and preparation of this site characterization report and closure request. All work has been performed in accordance with generally accepted professional environmental consulting practices for oil and gas releases in the Permian Basin.

We appreciate the opportunity to work with Devon on this project. If you have any questions or concerns, please do not hesitate to contact me at (970) 243-3271 or via email at jlinn@hrlcomp.com.

Sincerely,

HRL Compliance Solutions, Inc.

Julie Linn, PG, RG
Project Manager

Figures:

Figure 1: Site Location
Figure 2: Depth to Groundwater
Figure 3: Sample Location and Results

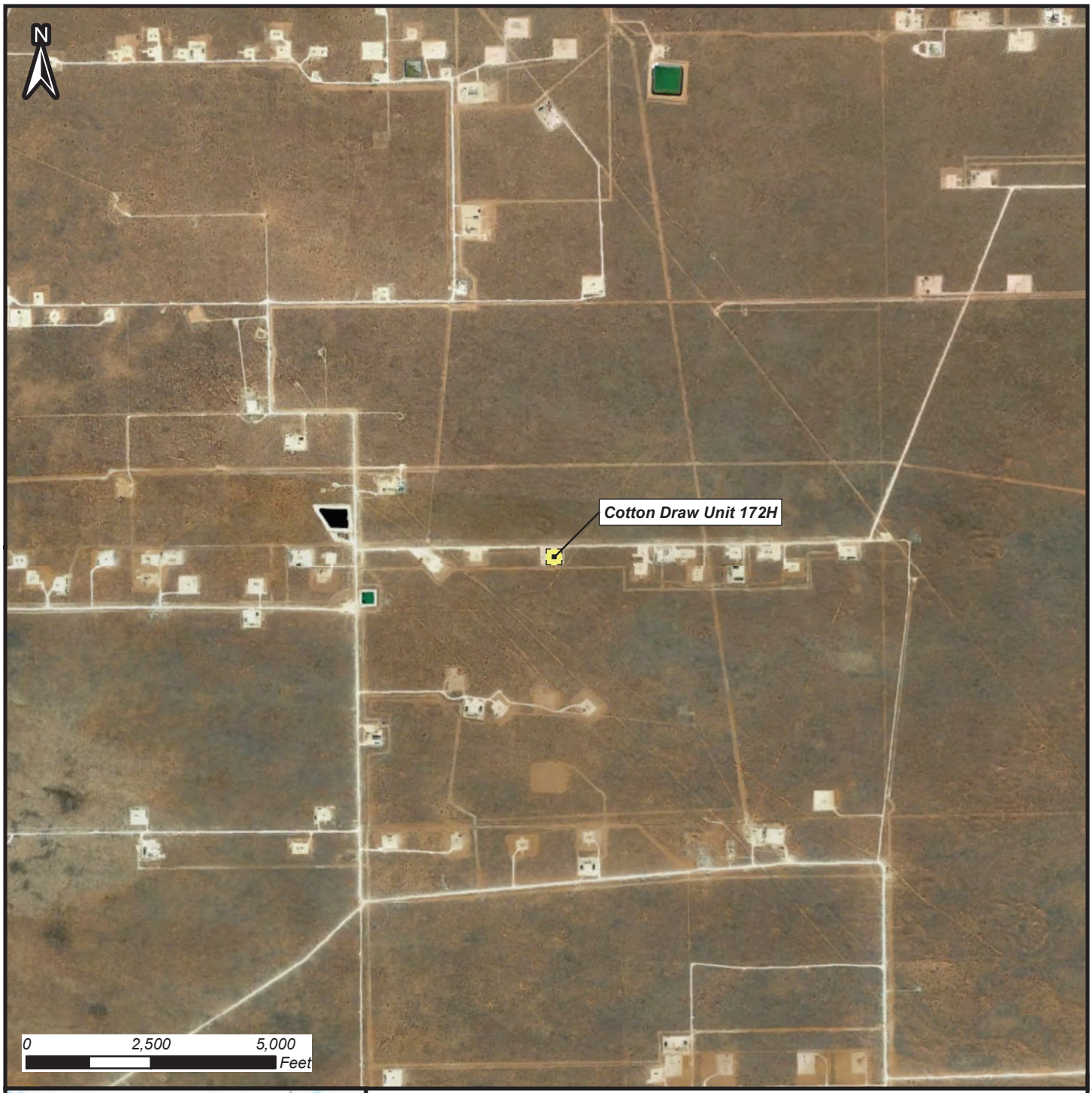
Tables:

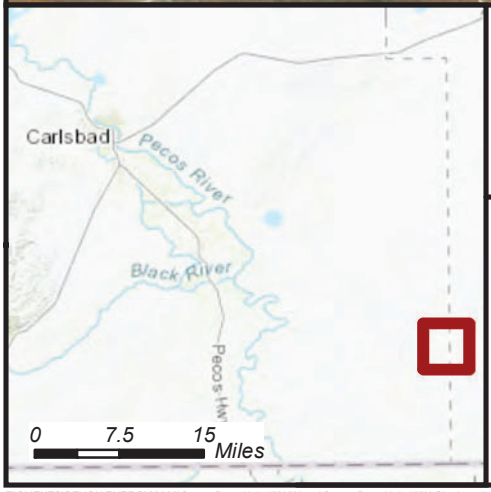
Table 1: Analytical Laboratory Results

Attachments:

Attachment A: Photographs
Attachment B: NMOCD Form C-141
Attachment C: Analytical Laboratory Report

Figures





devon

Figure 1: Site Location Map

Cotton Draw Unit 172H
May 2016 Spill

32.151932353, -103.726815365
Section 12, Township 25 South, Range 31 East

NOTES / COMMENTS:

Mapped Features

Facility Location

HRL COMPLIANCE SOLUTIONS

Author: A. Asay
Revision: 0
Date: 2/27/2020

T:\CLIENTS\DEVON ENERGY\2020\Cotton Draw Unit 172H\Maps\Cotton Draw Unit 172H Site Location Map 022720.mxd

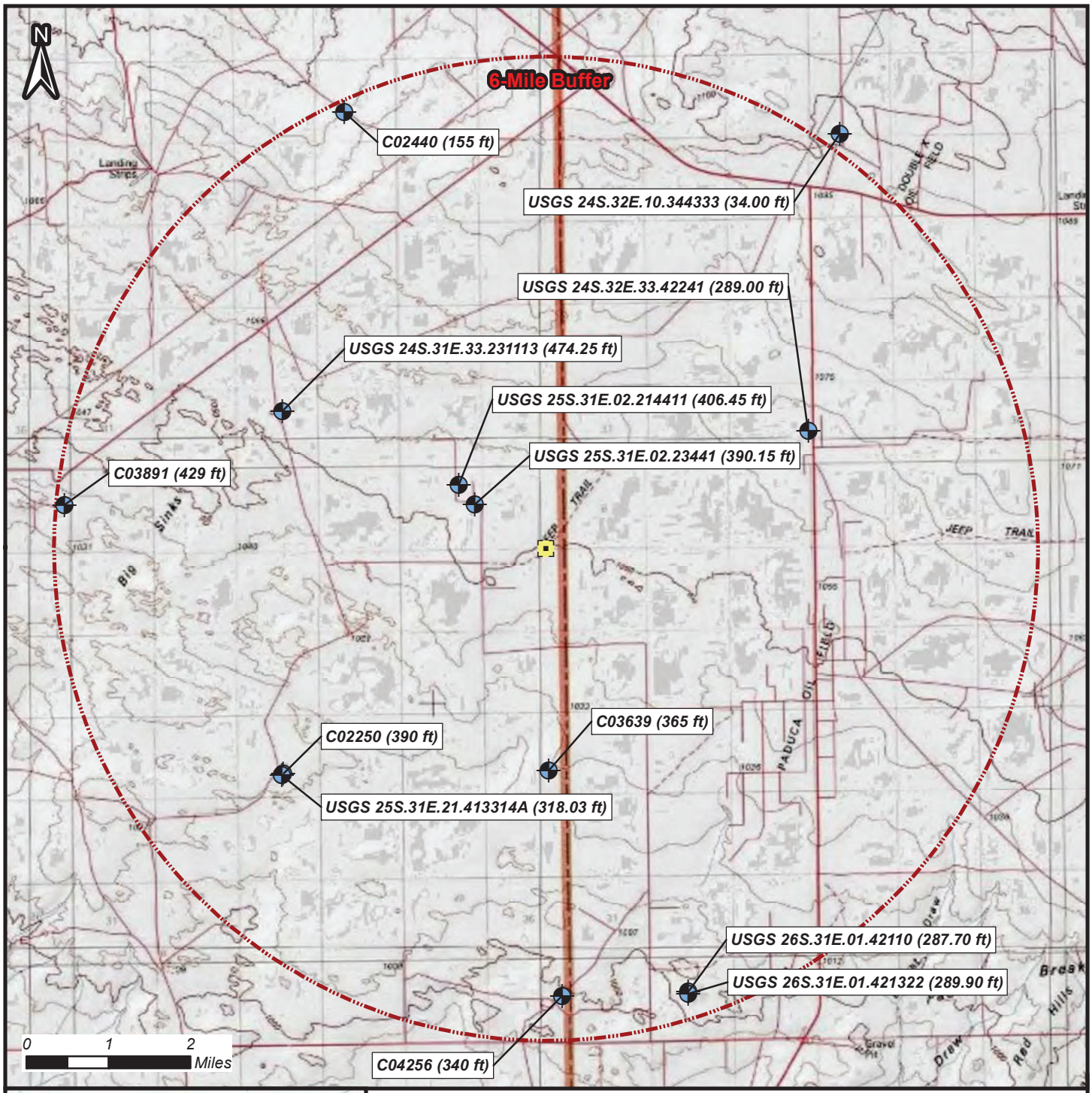


Figure 2: Depth to Groundwater Map

Cotton Draw Unit 172H
May 2016 Spill

32.151932353, -103.726815365
Section 12, Township 25 South, Range 31 East

Well Number	Water Level Below Ground Surface (ft)	Distance from Source (mi)
C02250	390.00	4.22
C03639	365.00	2.71
C04256	340.00	5.46
C02440	155.00	5.86
C03891	429.00	5.90
USGS 25S.31E.02.23441	390.15	1.03
USGS 25S.31E.02.214411	406.45	1.32
USGS 24S.31E.33.231113	474.25	3.63
USGS 24S.32E.33.42241	289.00	3.51
USGS 25S.31E.21.413314A	318.03	4.25
USGS 26S.31E.01.42110	287.70	5.68
USGS 26S.31E.01.421322	289.90	5.70
USGS 24S.32E.10.344333	34.00	6.19

Mapped Features

- Point of Release
- Groundwater Well
- 6-Mile Buffer

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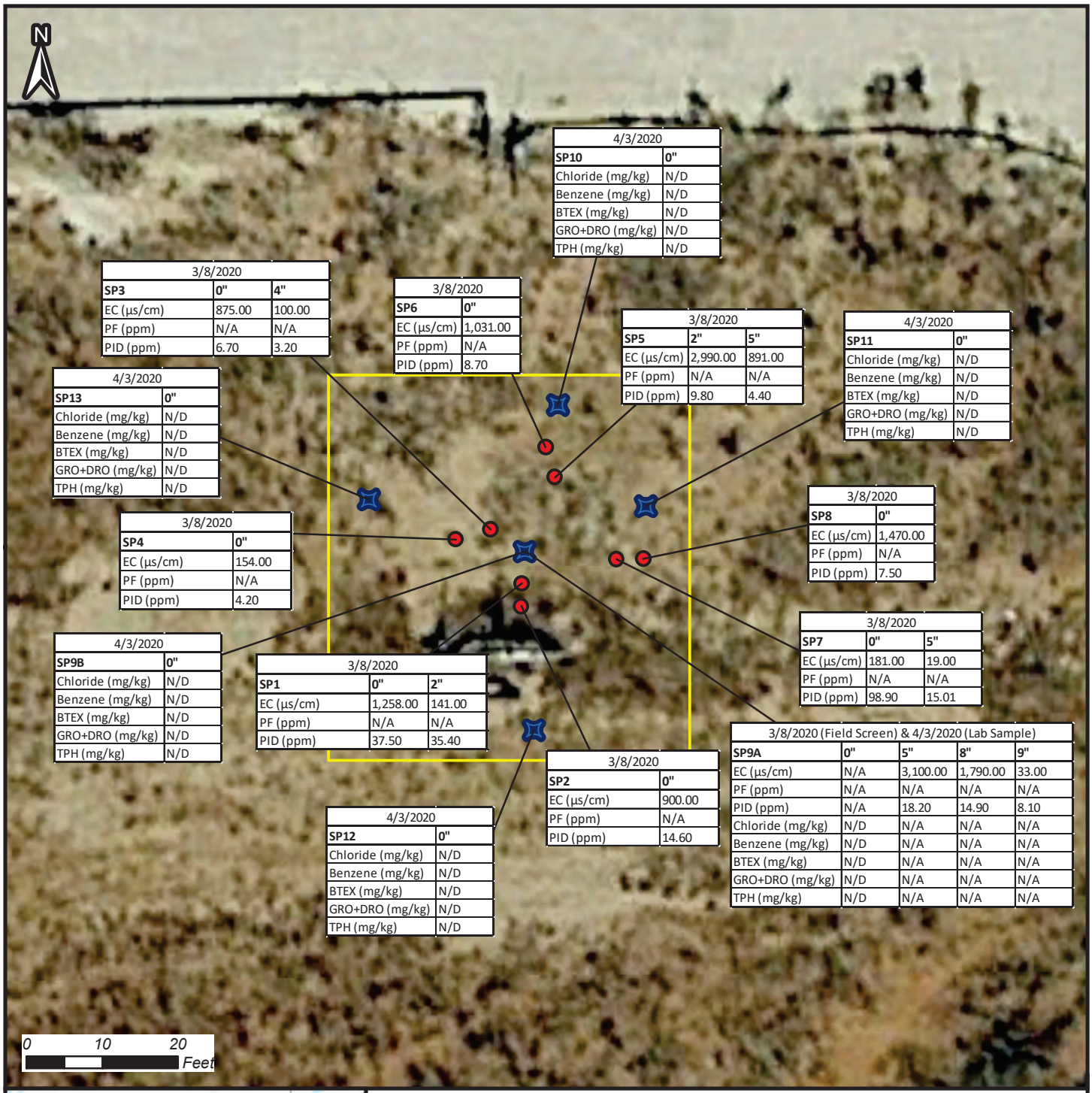
Author: A. Asay
Revision: 0
Date: 5/18/2020

T:\CLIENTS\DEVON ENERGY\2020\Cotton Draw Unit 172H\Maps\Cotton Draw Unit 172H DTGW Map (May 2016 Spill) 051820.mxd



devon

Figure 3: Sample Location and Results

Cotton Draw Unit 172H

May 2016 Spill

32.151932353, -103.726815365

Section 12, Township 25 South, Range 31 East

NOTES / COMMENTS:

The area of investigation is approximately 2,422 square feet.

Component exceedances are depicted in red.

Mapped Features

- Sample Location (Submitted for Analysis)
- Field Screen Sample Location
- Area of Investigation

HRL COMPLIANCE SOLUTIONS

Author: A. Asay

Revision: 0

Date: 6/1/2020

T:\CLIENTS\DEVON ENERGY\2020\Cotton Draw Unit 172H\Maps\Cotton Draw Unit 172H Sample Location and Results Map (May 2016 Spill) 060120.mxd

Tables

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Table 1
Soil Sample Results
Devon Energy
Cotton Draw Unit 172H (May 2016)
Eddy County, New Mexico

Sample ID	Depth (inches)	Sample Date	Chloride	Benzene	BTEX	GRO + DRO	TPH
			Values are in milligrams per kilogram (mg/kg)				
NMOCD Closure Criteria (Groundwater greater than 100 feet) *			20,000	10	50	1,000	2,500
SP9A	0	4/3/2020	ND	ND	ND	ND	ND
SP9B	0	4/3/2020	ND	ND	ND	ND	ND
SP10	0	4/3/2020	ND	ND	ND	ND	ND
SP11	0	4/3/2020	ND	ND	ND	ND	ND
SP12	0	4/3/2020	ND	ND	ND	ND	ND
SP13	0	4/3/2020	ND	ND	ND	ND	ND

Notes:

NMOCD: New Mexico Oil Conservation Division

BTEX: Benzene, Toluene, Ethylbenzene, Total Xylenes

GRO: Gasoline Range Organics

DRO: Diesel Range Organics

TPH: Total Petroleum Hydrocarbons

Results shaded in grey exceed closure criteria

* Closure Criteria specified in 19.15.29.12 NMAC

Attachment A

Photographs

Photograph of the release, view to the west

Photograph of the release, view to the east

Attachment B

NMOCD Form C-141

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

State of New Mexico
Energy Minerals and Natural Resources

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

Form C-141
Revised August 8, 2011

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

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company Devon Energy Production	**Contact** Jake Harrington, Production Foreman
Address 6488 Seven Rivers Hwy Artesia, NM 88220	**Telephone No.** 432-214-5175
Facility Name Cotton Draw Unit 172H	**Facility Type** Oil

Surface Owner Federal	**Mineral Owner** Federal	**API No.** 30-015-42426

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	1	25S	31E	0195	South	1345	East	Eddy

Latitude: 32.090941 **Longitude:** -103.433837

NATURE OF RELEASE

Type of Release Produced water release	**Volume of Release** 20bbls	**Volume Recovered** 0bbls
Source of Release Gasket between the valve & pipe	**Date and Hour of Occurrence** May 6, 2016 @ 1:30 PM	**Date and Hour of Discovery** May 6, 2016 @ 1:30 PM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** Shelly Tucker, BLM Mike Bratcher, OCD	
By Whom? Matt Nettles, Asst. Production Foreman	**Date and Hour** May 6, 2016 @ 2:30 Shelly Tucker, BLM May 6, 2016 @ 2:45 Mike Bratcher, OCD	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse** N/A	

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

Describe Cause of Problem and Remedial Action Taken.*
Gasket blew out on main water line between the valve and the pipe. The valves on each side of the line were immediately shut so the line could be bypassed to stop the water flow. The line is currently out of service waiting on repairs.

Describe Area Affected and Cleanup Action Taken.*
20bbls produced water was released in the right-of-way with 0bbls recovered. The release was in the right-of-way South of location in a 75' x 75' area. All fluid remained in the right-of-way. An environmental agency will be contacted for remediation of the affected area.

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

Signature: Sheila Fisher	OIL CONSERVATION DIVISION	
Printed Name: **Sheila Fisher**	Approved by Environmental Specialist:	
Title: **Field Admin Support**	Approval Date:	Expiration Date:
E-mail Address: **Sheila.Fisher@dvn.com**	Conditions of Approval:	Attached ☐
Date: **5/9/16** Phone: **575.748.1829**		

* Attach Additional Sheets If Necessary

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	nAB1613135426
District RP	2RP-3683
Facility ID	
Application ID	

Site Assessment/Characterization

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

What is the shallowest depth to groundwater beneath the area affected by the release?	>100 (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

State of New Mexico
Oil Conservation Division

Incident ID	nAB1613135426
District RP	2RP-3683
Facility ID	
Application ID	

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.

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: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 6/4/2020

email: tom.bynum@dvn.com Telephone: 575-748-0176

OCD Only

Received by: _____ Date: _____

State of New Mexico
Oil Conservation Division

Incident ID	nAB1613135426
District RP	2RP-3683
Facility ID	
Application ID	

Closure

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

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

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

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

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

☒ Description of remediation activities

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

Printed Name: Tom Bynum Title: EHS Consultant

Signature: Tom Bynum Date: 6/4/2020

email: tom.bynum@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: Brittany Hall Date: 11/3/2022

Printed Name: Brittany Hall Title: Environmental Specialist

Attachment C

Analytical Laboratory Results

HALL ENVIRONMENTAL ANALYSIS LABORATORY

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

April 13, 2020

Tom Bynum
Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (575) 748-0176
FAX:

RE: Cotton Draw 172H May 2016 OrderNo.: 2004247

Dear Tom Bynum:

Hall Environmental Analysis Laboratory received 6 sample(s) on 4/7/2020 for the analyses presented in the following report.

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

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

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

Sincerely,

Andy Freeman
Laboratory Manager
4901 Hawkins NE
Albuquerque, NM 87109

Analytical Report
Lab Order **2004247**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Cotton Draw 172H May 2016
Lab ID: 2004247-001 **Matrix:** SOIL

Client Sample ID: SP9A
Collection Date: 4/3/2020 8:14:00 AM
Received Date: 4/7/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.6		mg/Kg	1	4/9/2020 5:20:08 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/9/2020 5:20:08 PM
Surr: DNOP	92.8	55.1-146		%Rec	1	4/9/2020 5:20:08 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 9:39:32 AM
Surr: BFB	95.8	66.6-105		%Rec	1	4/9/2020 9:39:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/9/2020 9:39:32 AM
Toluene	ND	0.047		mg/Kg	1	4/9/2020 9:39:32 AM
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 9:39:32 AM
Xylenes, Total	ND	0.094		mg/Kg	1	4/9/2020 9:39:32 AM
Surr: 4-Bromofluorobenzene	98.4	80-120		%Rec	1	4/9/2020 9:39:32 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	4/9/2020 3:15:19 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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 **2004247**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Cotton Draw 172H May 2016
Lab ID: 2004247-002 **Matrix:** SOIL

Client Sample ID: SP9B
Collection Date: 4/3/2020 8:16:00 AM
Received Date: 4/7/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.4		mg/Kg	1	4/9/2020 5:44:06 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/9/2020 5:44:06 PM
Surr: DNOP	99.5	55.1-146		%Rec	1	4/9/2020 5:44:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	4/9/2020 10:03:08 AM
Surr: BFB	96.1	66.6-105		%Rec	1	4/9/2020 10:03:08 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/9/2020 10:03:08 AM
Toluene	ND	0.048		mg/Kg	1	4/9/2020 10:03:08 AM
Ethylbenzene	ND	0.048		mg/Kg	1	4/9/2020 10:03:08 AM
Xylenes, Total	ND	0.096		mg/Kg	1	4/9/2020 10:03:08 AM
Surr: 4-Bromofluorobenzene	97.8	80-120		%Rec	1	4/9/2020 10:03:08 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	4/9/2020 3:52:25 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 **2004247**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Cotton Draw 172H May 2016
Lab ID: 2004247-003 **Matrix:** SOIL

Client Sample ID: SP10
Collection Date: 4/3/2020 8:21:00 AM
Received Date: 4/7/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.5		mg/Kg	1	4/9/2020 6:08:06 PM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	4/9/2020 6:08:06 PM
Surr: DNOP	91.0	55.1-146		%Rec	1	4/9/2020 6:08:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	4/9/2020 10:26:42 AM
Surr: BFB	95.4	66.6-105		%Rec	1	4/9/2020 10:26:42 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/9/2020 10:26:42 AM
Toluene	ND	0.047		mg/Kg	1	4/9/2020 10:26:42 AM
Ethylbenzene	ND	0.047		mg/Kg	1	4/9/2020 10:26:42 AM
Xylenes, Total	ND	0.095		mg/Kg	1	4/9/2020 10:26:42 AM
Surr: 4-Bromofluorobenzene	98.1	80-120		%Rec	1	4/9/2020 10:26:42 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	4/9/2020 4:04:45 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 **2004247**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Cotton Draw 172H May 2016
Lab ID: 2004247-004 **Matrix:** SOIL

Client Sample ID: SP11
Collection Date: 4/3/2020 8:26:00 AM
Received Date: 4/7/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.8		mg/Kg	1	4/9/2020 6:31:52 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	4/9/2020 6:31:52 PM
Surr: DNOP	96.9	55.1-146		%Rec	1	4/9/2020 6:31:52 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/9/2020 10:50:06 AM
Surr: BFB	95.5	66.6-105		%Rec	1	4/9/2020 10:50:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	4/9/2020 10:50:06 AM
Toluene	ND	0.049		mg/Kg	1	4/9/2020 10:50:06 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/9/2020 10:50:06 AM
Xylenes, Total	ND	0.099		mg/Kg	1	4/9/2020 10:50:06 AM
Surr: 4-Bromofluorobenzene	98.3	80-120		%Rec	1	4/9/2020 10:50:06 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	4/9/2020 4:17:06 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 **2004247**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Cotton Draw 172H May 2016
Lab ID: 2004247-005 **Matrix:** SOIL

Client Sample ID: SP12
Collection Date: 4/3/2020 8:28:00 AM
Received Date: 4/7/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.2		mg/Kg	1	4/9/2020 6:55:35 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	4/9/2020 6:55:35 PM
Surr: DNOP	99.0	55.1-146		%Rec	1	4/9/2020 6:55:35 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	4/9/2020 11:13:27 AM
Surr: BFB	95.1	66.6-105		%Rec	1	4/9/2020 11:13:27 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.025		mg/Kg	1	4/9/2020 11:13:27 AM
Toluene	ND	0.050		mg/Kg	1	4/9/2020 11:13:27 AM
Ethylbenzene	ND	0.050		mg/Kg	1	4/9/2020 11:13:27 AM
Xylenes, Total	ND	0.099		mg/Kg	1	4/9/2020 11:13:27 AM
Surr: 4-Bromofluorobenzene	99.3	80-120		%Rec	1	4/9/2020 11:13:27 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	60		mg/Kg	20	4/9/2020 4:29:27 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 **2004247**
Date Reported: **4/13/2020**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Cotton Draw 172H May 2016
Lab ID: 2004247-006 **Matrix:** SOIL

Client Sample ID: SP13
Collection Date: 4/3/2020 8:29:00 AM
Received Date: 4/7/2020 8:25:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.3		mg/Kg	1	4/9/2020 7:19:10 PM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	4/9/2020 7:19:10 PM
Surr: DNOP	93.1	55.1-146		%Rec	1	4/9/2020 7:19:10 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **RAA**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	4/9/2020 11:36:49 AM
Surr: BFB	96.5	66.6-105		%Rec	1	4/9/2020 11:36:49 AM
EPA METHOD 8021B: VOLATILES						Analyst: **RAA**
Benzene	ND	0.024		mg/Kg	1	4/9/2020 11:36:49 AM
Toluene	ND	0.049		mg/Kg	1	4/9/2020 11:36:49 AM
Ethylbenzene	ND	0.049		mg/Kg	1	4/9/2020 11:36:49 AM
Xylenes, Total	ND	0.097		mg/Kg	1	4/9/2020 11:36:49 AM
Surr: 4-Bromofluorobenzene	99.4	80-120		%Rec	1	4/9/2020 11:36:49 AM
EPA METHOD 300.0: ANIONS						Analyst: **MRA**
Chloride	ND	61		mg/Kg	20	4/9/2020 4:41:48 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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004247**

13-Apr-20

Client: Devon Energy

Project: Cotton Draw 172H May 2016

Sample ID: **MB-51683**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **51683**	RunNo: **68004**							
Prep Date: **4/9/2020**	Analysis Date: **4/9/2020**	SeqNo: **2350088**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

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#: **2004247**

13-Apr-20

Client: Devon Energy

Project: Cotton Draw 172H May 2016

Sample ID: **LCS-51627** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **LCSS** Batch ID: **51627** RunNo: **67934**

Prep Date: **4/7/2020** Analysis Date: **4/8/2020** SeqNo: **2347744** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	10	50.00	0	81.7	70	130			
Surr: DNOP	3.6		5.000		71.9	55.1	146			

Sample ID: **MB-51627** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**

Client ID: **PBS** Batch ID: **51627** RunNo: **67934**

Prep Date: **4/7/2020** Analysis Date: **4/8/2020** SeqNo: **2347745** 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	7.3		10.00		72.5	55.1	146			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2004247**

13-Apr-20

Client: Devon Energy

Project: Cotton Draw 172H May 2016

Sample ID: **mb-51623**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **51623**	RunNo: **67938**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2348375** 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	970		1000		96.8	66.6	105			

Sample ID: **lcs-51623**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **51623**	RunNo: **67938**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2348376** 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	96.8	80	120			
Surr: BFB	1100		1000		111	66.6	105			S

Sample ID: **lcs-51628**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **51628**	RunNo: **68006**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2350206** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	1100		1000		108	66.6	105			S

Sample ID: **mb-51628**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **51628**	RunNo: **68006**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2350208** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	970		1000		97.0	66.6	105			

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#: **2004247**

13-Apr-20

Client: Devon Energy

Project: Cotton Draw 172H May 2016

Sample ID: **mb-51623**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **51623**	RunNo: **67938**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2348410** 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	0.99		1.000		99.4	80	120			

Sample ID: **LCS-51623**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **51623**	RunNo: **67938**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2348411** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.88	0.025	1.000	0	87.6	80	120			
Toluene	0.91	0.050	1.000	0	91.4	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	95.6	80	120			
Surr: 4-Bromofluorobenzene	1.0		1.000		103	80	120			

Sample ID: **LCS-51628**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **51628**	RunNo: **68006**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2350255** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	1.0		1.000		101	80	120			

Sample ID: **mb-51628**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **51628**	RunNo: **68006**
Prep Date: **4/7/2020**	Analysis Date: **4/9/2020**	SeqNo: **2350257** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: 4-Bromofluorobenzene	0.99		1.000		99.2	80	120			

Qualifiers:

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

HALL 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: **2004247** RcptNo: **1**

Received By: **Juan Rojas** **4/7/2020 8:25:00 AM** Juan Rojas

Completed By: **Leah Baca** **4/7/2020 9:36:45 AM** Leah Baca

Reviewed By: LB 4/7/20

Chain of Custody

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

Log In

3. Was an attempt made to cool the samples? Yes ☑ No ☐ NA ☐
4. Were all samples received at a temperature of >0° C to 6.0°C Yes ☑ No ☐ NA ☐
5. Sample(s) in proper container(s)? Yes ☑ No ☐
6. Sufficient sample volume for indicated test(s)? Yes ☑ No ☐
7. Are samples (except VOA and ONG) properly preserved? Yes ☑ No ☐
8. Was preservative added to bottles? Yes ☐ No ☑ NA ☐
9. Received at least 1 vial with headspace <1/4" for AQ VOA? Yes ☐ No ☐ NA ☑
10. Were any sample containers received broken? Yes ☐ No ☑
11. Does paperwork match bottle labels? (Note discrepancies on chain of custody) Yes ☑ No ☐
12. Are matrices correctly identified on Chain of Custody? Yes ☑ No ☐
13. Is it clear what analyses were requested? Yes ☑ No ☐
14. Were all holding times able to be met? (If no, notify customer for authorization.) Yes ☑ No ☐

# of preserved bottles checked for pH: _____ (<2 or >12 unless noted)
Adjusted? _____
Checked by: DAD 4/7/20

Special Handling (if applicable)

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

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

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	1.5	Good				
2	2.5	Good				

Chain-of-Custody Record

Client: Devon Energy
Tom Bynum

Mailing Address: 6488 Seven Rivers Hwy
Artesia, NM 88211

Phone #: 580-748-1613

email or Fax#: tombynum@dvn.com

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 day TAT
☑ Standard ☐ Rush

Project Name: Cotton Draw
172H May 2016

Project #: 20837067

Project Manager: Tom Bynum

Sampler: Taylor Elwell (HRL)
On Ice: ☑ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): 1.6-0.1=1.5
2.6-0.1=2.5

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.	(BTEX) MTBE / TMB's (8021) 8015M	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
4/3/20	08:14	Soil	SP9A	4oz Glass	Ice	2004247-001	X	X					X			
4/3/20	08:16	Soil	SP9B	4oz Glass	Ice	-002	X	X					X			
4/3/20	08:21	Soil	SP10	4oz Glass	Ice	-003	X	X					X			
4/3/20	08:26	Soil	SP11	4oz Glass	Ice	-004	X	X					X			
4/3/20	08:28	Soil	SP12	4oz Glass	Ice	-005	X	X					X			
4/3/20	08:29	Soil	SP13	4oz Glass	Ice	-006	X	X					X			

Date	Time	Relinquished by:	Received by:	Via:	Date Time
4/6/20	1330	Taylor Elwell			
4/6/20	1900			courier	4/7/20 8:25

Remarks: Please Send Report to Taylor Elwell and Julie Linn @ tlwell@hrlcomp.com jlinn@hrlcomp.com

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

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

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

CONDITIONS

Action 9123

CONDITIONS

Operator:	OGRID:
Pima Environmental Services, LLC 5614 N Lovington Hwy Hobbs, NM 88240	329999
	Action Number: 9123
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
bhall	None	11/3/2022