Spill Volume(Bbls) Calculator	
Inputs in blue, Outputs in red	
Contaminated Soil measurement	
Area (square feet)	Depth(Ft)
363.128	0.020
Cubic Feet of Soil Impacted	7.263
Barrels of Soil Impacted	1.29
Soil Type	Clay
Barrels of Oil Assuming 100% Saturation	0.13
Saturation	Fluid present when squeezed
Estimated Barrels of Oil Released	0.06
Free Standing Fluid Only	
Area (square feet)	Depth(Ft)
363.128	0.083
Standing fluid	5.361
Total fluids spilled	**5.490**

Incident Number: nAPP2215725364

Amended Release Assessment and Closure

Strawberry 7 Federal Com #008H

Unit H, Section 07, Township 19 South, Range 31 East
API: 30-015-41507
County: Eddy
Vertex File Number: 22E-02063

Prepared for:
Devon Energy Production Company, LP

Prepared by:
Vertex Resource Services Inc.

Date:
June 2024

Amended Release Assessment and Closure
Strawberry 7 Federal Com #008H
Unit H, Section 07, Township 19 South, Range 31 East
API: 30-015-41507
County: Eddy

Prepared for:
Devon Energy Production Company, LP
6488 Seven Rivers Highway
Artesia, New Mexico 88210

New Mexico Oil Conservation Division – District 2
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3101 Boyd Drive
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Stephanie McCarty

Stephanie McCarty, B.Sc.
ENVIRONMENTAL TECHNOLOGIST, REPORTING

June 6, 2024
Date

kent stallings P.G.

Kent Stallings, P.G.
SENIOR GEOLOGIST, REPORT REVIEW

June 14, 2024
Date

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1.0 Introduction

Devon Energy Production Company, LP (Devon) retained Vertex Resource Services Inc. (Vertex) to conduct a Release Assessment and Closure for a crude oil release that occurred on June 4, 2022, at Strawberry 7 Fed Com #008H API 30-015-41507 (hereafter referred to as the "site"). Devon submitted an initial C-141 Release Notification (Appendix A) to New Mexico Oil Conservation Division (NMOCD) District 2 on June 9, 2022. Incident ID number nAPP2215725364, was assigned to this incident.

This report provides a description of the release assessment and remediation activities associated with the site. The information presented demonstrates that closure criteria established in Table I of 19.15.29.12 of the *New Mexico Administrative Code* (NMAC; New Mexico Oil Conservation Division, 2018) related to NMOCD has been met and all applicable regulations are being followed. This document is intended to serve as a final report to obtain approval from NMOCD for closure of this release, with the understanding that restoration of the release site will be completed following remediation activities as per NMAC 19.15.29.13.

2.0 Incident Description

The release occurred on June 4, 2022, due to a malfunction at the wellhead, resulting in fluid releasing onto the open pad. The incident was reported on June 9, 2022, and involved the release of approximately 5.4 barrels (bbl.) of crude oil on the open pad site. Approximately 3 bbl. of free fluid was removed during the initial clean-up. Additional details relevant to the release are presented in the C-141 Report.

3.0 Site Characteristics

The site is located approximately 10.5 miles southeast of Loco Hills, New Mexico (Google Inc., 2023). The legal location for the site is Section 07, Township 19 South and Range 31 East in Eddy County, New Mexico. The release area is located on Bureau of Land Management property. An aerial photograph and site schematic are presented on Figure 1.

The location is typical of oil and gas exploration and production sites in the Permian Basin and is currently used for oil and gas production, and storage. The following sections specifically describe the release area at the site on or in proximity to the constructed pad (Figure 1).

The surrounding landscape is associated with upland landforms with elevations ranging between 2,842 and 5,000 feet. The climate is semiarid with average annual precipitation ranging between 8 and 13 inches. Using information from the United States Department of Agriculture, the dominant vegetation was determined to be woody species. Grasses with shrubs and half-shrubs dominate the historic plant community (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Limited to no vegetation is allowed to grow on the compacted production pad, right-of-way and access road.

The surface geology at the site primarily comprises Qp – Piedmont alluvial deposits from the Holocene to lower Pleistocene ages (New Mexico Bureau of Geology and Mineral Resources, 2023) and the soil at the site is characterized as loamy fine sand (United States Department of Agriculture, Natural Resources Conservation Service, 2023). Additional

soil characteristics include a drainage class of well drained with a low runoff class. The karst geology potential for the site is low (United States Department of the Interior, Bureau of Land Management, 2018).

4.0 Closure Criteria Determination

The nearest active well to the site is a New Mexico Office of the State Engineer (NMOSE) exploratory borehole located approximately 0.40 miles north of the site (United States Geological Survey, 2023). Data from 2022 shows the NMOSE borehole recorded a dry hole at 105 feet below ground surface (bgs). Information pertaining to the depth to ground water determination is included in Appendix B.

There is no surface water present at the site. The nearest significant watercourse, as defined in Subsection P of 19.15.17.7 NMAC, is an intermittent stream located approximately 0.68 miles north of the site (United States Fish and Wildlife Service, 2023).

At the site, there are no continuously flowing watercourses or significant watercourses, lakebeds, sinkholes, playa lakes or other critical water or community features as outlined in Paragraph (4) of Subsection C of 19.15.29.12 NMAC.

Table 1. Closure Criteria Determination			
Site Name: Strawberry 7 Federal Com #008H			
Spill Coordinates: 32.67665917,-103.9012136		**X: 603019**	**Y: 3615976**
Site Specific Conditions		**Value**	**Unit**
1	Depth to Groundwater (nearest reference)	**>105**	feet
	Distance between release and nearest DTGW reference	**2,104**	feet
		0.40	miles
	Date of nearest DTGW reference measurement	**December 13, 2022**	
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,565	feet
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	9,065	feet
4	Within 300 feet from an occupied residence, school, hospital, institution or church	55,000	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**	11,932	feet
	ii) Within 1000 feet of any fresh water well or spring	10,141	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	4,159	feet
8	Within the area overlying a subsurface mine	No	(Y/N)
	Distance between release and nearest registered mine	**21,280**	feet
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low
	Distance between release and nearest High Karst	**6,585**	feet
10	Within a 100-year Floodplain	>500	year
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	**16,184**	feet
11	Soil Type	Loamy fine sand, sandy clay loam	
12	Ecological Classification	Loamy	
13	Geology	Piedmont alluvial deposits	
	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 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

TDS – total dissolved solids
TPH – total petroleum hydrocarbons, GRO – gas range organics, DRO – diesel range organics, MRO – motor oil range organics
BTEX – benzene, toluene, ethylbenzene and xylenes

5.0 Remedial Actions Taken

5.1 Characterization and Remediation

An initial site inspection of the release area was completed on June 12, 2022, which identified the area of the release specified in the initial C-141 Report, estimated the approximate volume of the release and white lined the area required for the One Call request. The impacted area was determined to be approximately 22 feet long and 35 feet wide; the total affected area was 555 square feet. The remediated area was determined to be approximately 30 feet long and 33 feet wide; the total remediated area was 615 square feet. Initial characterization field screening results are presented in Table 3. The Daily Field Reports (DFRs) associated with the site inspection are included in Appendix C.

Remediation efforts began on June 12, 2022, and were finalized on September 7, 2023. Vertex personnel supervised the excavation of impacted soils. Field screening was completed on a total of 13 sample points and consisted of analysis using a Dexsil Petroflag using EPA SW-846 Method 9074 (extractable hydrocarbons) and electrical conductivity meter (chlorides). Field screening results were used to identify areas requiring further remediation. Soils were removed to a depth of 0.5 to 1 foot bgs. Impacted soil was transported by a licensed waste hauler and disposed of at an approved waste management facility as stipulated by the Form C-138 Request for Approval to Accept Solid Waste. Daily Field Reports documenting various phases of the remediation are included in Appendix C.

Notification that confirmatory samples were being collected was provided to the NMOCD on August 24, 2023, and September 1, 2023 (Appendix D). Confirmatory composite samples were collected from the base and walls of the excavation in 200 square foot increments or less. A total of seven samples were collected for laboratory analysis following NMOCD soil sampling procedures. Samples were submitted to Hall Environmental Analysis Laboratory, Inc under chain of-custody protocols and analyzed for BTEX (EPA Method 8021B), total petroleum hydrocarbons (GRO, DRO, MRO – EPA Method 8015D) and total chlorides (EPA Method 300.0). Laboratory results are presented in Table 4, and the laboratory data reports are included in Appendix E. All confirmatory samples collected and analyzed were below closure criteria for the site.

5.2 Closure Denial and Explanation of Sampling Techniques

Devon submitted the initial closure and deferral report to the NMOCD on January 18, 2024. The initial request was denied on March 28, 2024, with following notations:

> *"Remediation closure denied. When the final confirmation samples were collected on 9/7/23, the excavation had already been backfilled as you can see by the contrasting soil colors provided in the photos. Describe your sampling protocol for collecting these samples without sampling any of the backfill. If backfill was included in the samples this does not provide an accurate representation of the remediation and these samples must be recollected. Should this be the case, submit a sampling plan on how you will recollect the confirmation samples to rectify this issue. If these samples were from the backfill, they clearly are waste containing and new backfill should be acquired. Resubmit report by April 28, 2024."*

Backfill of the excavation had occurred prior to the confirmation sampling event due to a miscommunication with the contractor. On September 7, 2023, 5-point composite confirmation base and wall samples were collected from the previously backfilled excavation by advancing five boreholes to appropriate excavation depth for base samples, collecting discrete samples from the below ground surface excavation surface (base or wall), and creating a composite from each set of five samples. Composited borehole samples from corresponding sets of five discrete samples were collected over intervals of 200 square feet and were distributed to cover the excavation area. Boreholes were advanced using a hand auger. Discrete samples contributing to 5-point composites consisted of soil or aggregate originally in place and did not contain backfill material. The described method was used to collect the four composite base confirmation samples and three composite wall confirmation samples from the surfaces of the excavation.

On May 15, 2024, Vertex personnel collected a backfill sample from the residual pile left on the north edge of the well pad. The sample was a 5-point composite of the backfill stockpile remaining after the completion of remediation. The Daily Field Report describing the sample collection is presented in Appendix C and field screening and laboratory results are included in Table 4. Laboratory results for the backfill sample were below NMOCD strictest criteria for BTEX, TPH, and chloride.

6.0 Closure Request

Vertex recommends no additional remediation action to address the release at Strawberry 7 Federal Com #008H. Laboratory analyses of the final confirmatory samples showed constituent of concern concentration levels below NMOCD closure criteria for areas where depth to groundwater is greater than 100 feet bgs as shown in Table 2. There are no anticipated risks to human, ecological or hydrological receptors associated with the release site. The excavation was backfilled with non-waste-containing, uncontaminated, earthen material, sourced locally, and placed to meet the site's existing grade to prevent ponding of water and erosion.

Vertex requests that the incident (nAPP2215725364) be closed as all closure requirements set forth in Subsection E of 19.15.29.12 NMAC have been met. Devon certifies that all information in this report and the attachments is correct, and that they have complied with all applicable closure requirements and conditions specified in Division rules and

directives to meet NMOCD requirements to obtain closure on the June 4, 2022, release at Strawberry 7 Federal Com #008H.

The release area was fully delineated, remediated, and backfilled with local soils by September 7, 2023. Confirmatory samples were analyzed by the laboratory and found to be below allowable concentrations as per the NMAC Closure Criteria for Soils Impacted by a Release locations “greater than 100 feet to groundwater”. Confirmation sampling methods have been clarified per request. Backfill material has been confirmed as non-waste-containing and uncontaminated. Based on these findings, Devon Energy Production Company, LP requests that this release be closed.

Should you have any questions or concerns, please do not hesitate to contact Kent Stallings at 346.814.1413 or kstallings@vertex.ca.

7.0 References

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8.0 Limitations

This report has been prepared for the sole benefit of Devon Energy Production Company, LP. This document may not be used by any other person or entity, with the exception of the New Mexico Oil Conservation Division and the Bureau of Land Management, without the express written consent of Vertex Resource Services Inc. (Vertex) and Devon Energy Production Company, LP. 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.

FIGURES

Borehole (Prefixed by "BH22-") | Point of Release | Release area (~555 sq. ft.)

VERTEX

0 5 10 20 feet

Map Center:
Lat/Long: 32.676667, -103.901204

NAD 1983 UTM Zone 13N
Date: Oct 06/22

N

Characterization Sampling Site Schematic
Strawberry 7 Federal Com #008H

FIGURE:
1

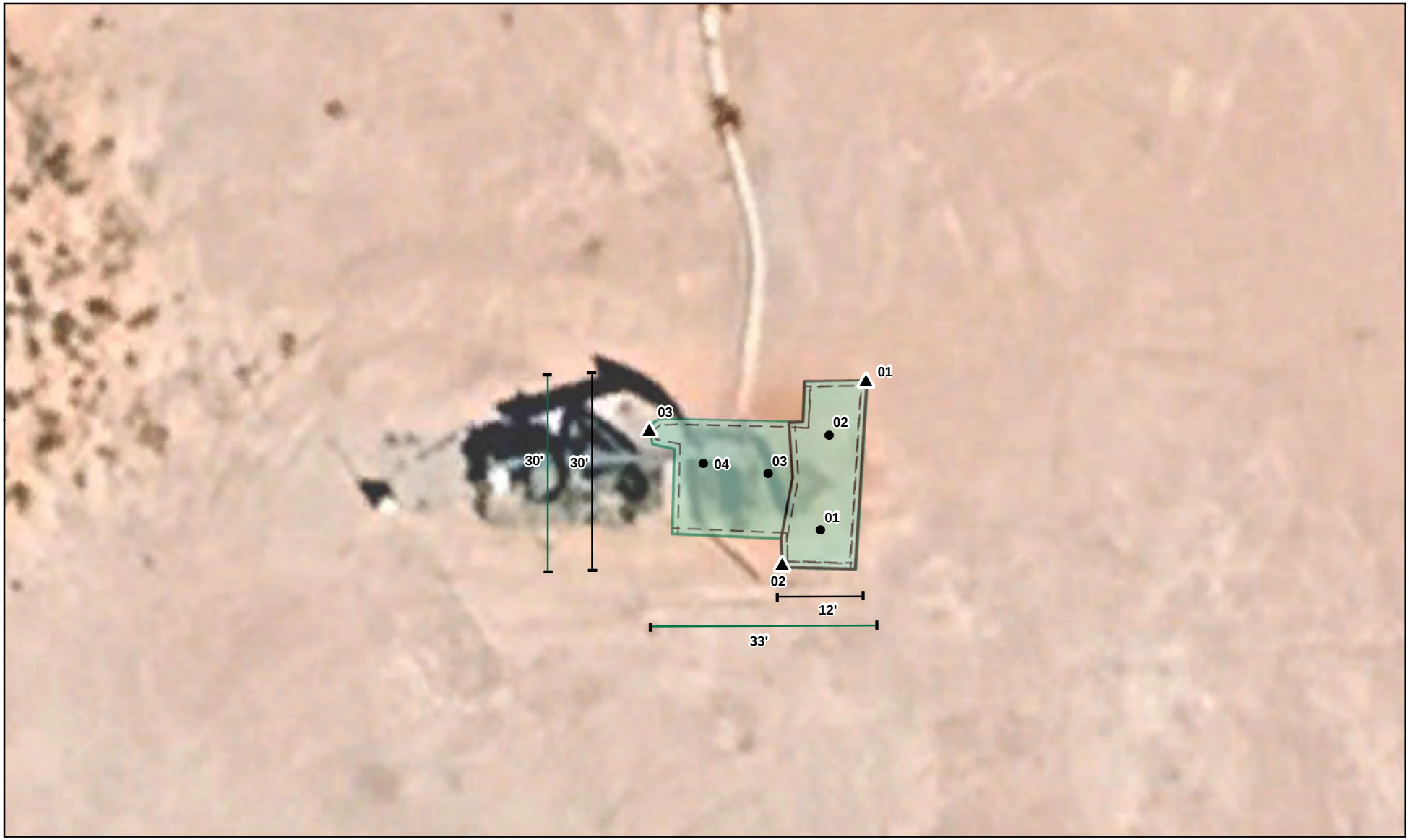
devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Background imagery Google Earth, 2017. Features from GPS, Vertex Professional Services Ltd., 2022.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2022\22E-02063 - Strawberry 7 Fed Com #8H\Figure 1 Characterization Schematic Strawberry 7 Fed Com #008H (22E-02063).mxd



● Base Sample (Prefixed by "BES23-") ▲ Wall Sample (Prefixed by "WES23-") Excavation to 0.5' bgs (~296 sq.ft.) Excavation to 1' bgs (~319 sq.ft.)

VERTEX

0 5 10 20 ft

Map Center:
Lat/Long: 32.676686, -103.901227

NAD 1983 UTM Zone 13N
Date: Sep 21/23

N

Confirmatory Sampling Site Schematic
Strawberry 7 Federal Com #008H

FIGURE:
2

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Image from Google Earth, 2023, georeferenced by Vertex Professional Services Ltd. (Vertex), 2023. Site features from GPS by Vertex, 2023.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2022\22E-02063 - Strawberry 7 Fed Com #8H\Figure 2 Confirmation Schematic Strawberry 7 Fed Com #008H (22E-02063).mxd

TABLES

Client Name: Devon Energy Production Company, LP
Site Name: Strawberry 7 Federal Com #008H
NM OCD Tracking #: nAPP2215725364
Project #: 22E-02063
Lab Reports: 2206E15, 2206D47 and 2206D48

Table 3. Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic
					Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH22-01	0	June 21, 2022	79	806	ND	ND	ND	ND	ND	ND	ND	930
	2	June 21, 2022	26	300	ND	ND	ND	ND	ND	ND	ND	300
BH22-02	0	June 21, 2022	63	269	ND	ND	ND	ND	ND	ND	ND	300
	2	June 21, 2022	20	72	ND	ND	ND	ND	ND	ND	ND	97
BH22-03	0	June 21, 2022	127	313	ND	ND	ND	38	93	ND	ND	270
	2	June 21, 2022	28	5	ND	ND	ND	ND	ND	ND	ND	120
BH22-04	0	June 21, 2022	107	261	ND	ND	ND	ND	ND	ND	ND	360
	2	June 21, 2022	41	471	ND	ND	ND	ND	ND	ND	ND	500
BH22-05	0	June 21, 2022	-	1,026	ND	ND	ND	ND	ND	ND	ND	1300
	2	June 21, 2022	-	1,340	ND	ND	ND	ND	ND	ND	ND	1300
BH22-06	0	June 21, 2022	-	1,166	ND	ND	ND	ND	ND	ND	ND	1300
	2	June 21, 2022	-	828	ND	ND	ND	ND	ND	ND	ND	600
BH22-07	0	June 21, 2022	48	219	ND	ND	ND	ND	ND	ND	ND	240
	2	June 21, 2022	26	347	ND	ND	ND	ND	ND	ND	ND	310
BH22-08	0	June 21, 2022	97	66	ND	ND	ND	51	ND	ND	ND	86
	2	June 21, 2022	1	15	ND	ND	ND	ND	ND	ND	ND	ND
BH22-09	0	June 21, 2022	17	466	ND	ND	ND	ND	ND	ND	ND	620
	2	June 21, 2022	20	27	ND	ND	ND	ND	ND	ND	ND	140
BH22-10	0	June 21, 2022	-	1,013	ND	ND	ND	ND	ND	ND	ND	1200
	2	June 21, 2022	24	5	ND	ND	ND	ND	ND	ND	ND	100
BH22-11	0	June 22, 2022	41	828	ND	ND	ND	ND	ND	ND	ND	390
	2	June 22, 2022	27	372	ND	ND	ND	ND	ND	ND	ND	220
BH22-12	0	June 22, 2022	287	610	ND	ND	ND	14	ND	14	14	500
	2	June 22, 2022	46	383	ND	ND	ND	ND	ND	ND	ND	250
BH22-13	0	June 22, 2022	32	0	ND	ND	ND	ND	ND	ND	ND	63
	2	June 22, 2022	28	93	ND	ND	ND	ND	ND	ND	ND	70
BH22-14	0	June 22, 2022	30	0	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 22, 2022	24	24	ND	ND	ND	ND	ND	ND	ND	67
BH22-15	0	June 22, 2022	70	801	ND	ND	ND	ND	ND	ND	ND	630
	2	June 22, 2022	24	163	ND	ND	ND	ND	ND	ND	ND	140
BH22-16	0	June 22, 2022	91	746	ND	ND	ND	ND	ND	ND	ND	570
	2	June 22, 2022	43	118	ND	ND	ND	ND	ND	ND	ND	260
BH22-17	0	June 22, 2022		1,707	ND	ND	ND	ND	ND	ND	ND	2100
	2	June 22, 2022	47	54	ND	ND	ND	ND	ND	ND	ND	170
BH22-18	0	June 22, 2022		717	ND	ND	ND	ND	ND	ND	ND	600
	2	June 22, 2022	32	59	ND	ND	ND	ND	ND	ND	ND	110
BH22-19	0	June 23, 2022	82	203	ND	ND	ND	ND	ND	ND	ND	200
	2	June 23, 2022	16	0	ND	ND	ND	ND	ND	ND	ND	75
BH22-20	0	June 23, 2022	86	3,543	ND	ND	ND	ND	ND	ND	ND	1400
	2	June 23, 2022	44	852	ND	ND	ND	ND	ND	ND	ND	780
BH22-21	0	June 23, 2022	30	30	ND	ND	ND	ND	ND	ND	ND	170
	2	June 23, 2022	35	23	ND	ND	ND	ND	ND	ND	ND	120
BH22-22	0	June 23, 2022	38	0	ND	ND	ND	ND	ND	ND	ND	67
	2	June 23, 2022	32	0	ND	ND	ND	ND	ND	ND	ND	ND

Client Name: Devon Energy Production Company, LP
Site Name: Strawberry 7 Federal Com #008H
NM OCD Tracking #: nAPP2215725364
Project #: 22E-02063
Lab Reports: 2206E15, 2206D47 and 2206D48

Table 3. Characterization Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic
					Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
BH22-23	0	June 23, 2022	461	4,334	ND	ND	ND	130	240	130	370	4000
	2	June 23, 2022	44	268	ND	ND	ND	ND	ND	ND	ND	160
	4	June 23, 2022	42	155	ND	ND	ND	ND	ND	ND	ND	150
BH22-24	0	June 23, 2022	508	1,977	ND	ND	ND	**1900**	820	**1900**	**2720**	5700
	2	June 23, 2022	36	14	ND	ND	ND	ND	ND	ND	ND	ND
	4	June 23, 2022	136	0	ND	ND	ND	22	ND	22	22	77
	6	June 23, 2022	150	0	ND	ND	ND	74	ND	74	74	71
BH22-25	0	June 23, 2022	114	1,449	ND	ND	ND	ND	ND	ND	ND	2500
	2	June 23, 2022	24	0	ND	ND	ND	ND	ND	ND	ND	89
BH22-26	0	June 23, 2022	40	0	ND	ND	ND	ND	ND	ND	ND	ND
	2	June 23, 2022	21	0	ND	ND	ND	ND	ND	ND	ND	2200

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Remediation Closure Criteria

Client Name: Devon Energy Production Company, LP
Site Name: Strawberry 7 Federal Com #008H
NMOCD Tracking #: nAPP2215725364
Project #: 22E-02063
Lab Reports: 2309452 and 885-4702-1

Table 4. Initial Confirmatory Sample Field Screen and Laboratory Results - Depth to Groundwater >100 feet bgs

Sample Description			Field Screening		Petroleum Hydrocarbons							Inorganic
					Volatile		Extractable					
Sample ID	Depth (ft)	Sample Date	Extractable Organic Compounds (PetroFlag)	Chloride Concentration	Benzene	BTEX (Total)	Gasoline Range Organics (GRO)	Diesel Range Organics (DRO)	Motor Oil Range Organics (MRO)	(GRO + DRO)	Total Petroleum Hydrocarbons (TPH)	Chloride Concentration
			(ppm)	(ppm)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Backfill-01	0	May 15, 2024	61	0	ND	ND	ND	ND	ND	ND	ND	82
WES23-01	0.5	September 7, 2023	158	0	ND	ND	ND	ND	ND	ND	ND	120
WES23-02	0.5	September 7, 2023	157	1,926	ND	ND	ND	ND	ND	ND	ND	2,300
WES23-03	1	September 7, 2023	101	181	ND	ND	ND	ND	ND	ND	ND	340
BES23-01	0.5	September 7, 2023	147	916	ND	ND	ND	ND	ND	ND	ND	790
BES23-02	0.5	September 7, 2023	380	482	ND	ND	ND	240	160	240	400	440
BES23-03	1	September 7, 2023	549	1,197	ND	ND	ND	160	250	160	410	1700
BES23-04	1	September 7, 2023	572	635	ND	ND	ND	240	640	240	880	1000

"ND" Not Detected at the Reporting Limit
"-" indicates not analyzed/assessed
Bold and grey shaded indicates exceedance outside of NMOCD Closure Criteria (on-pad)

APPENDIX A - NMOCD C-141 Report

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	nAPP2215725364
District RP	
Facility ID	
Application ID	

Release Notification

Responsible Party

Responsible Party Devon Energy Production Company	OGRID 6137
Contact Name Wesley Mathews	Contact Telephone
Contact email Wesley.Mathews@dvn.com	Incident # *(assigned by OCD)*
Contact mailing address 6488 Seven Rivers Hwy Artesia, NM 88210	

Location of Release Source

Latitude 32.6767006 Longitude -103.9012756
(NAD 83 in decimal degrees to 5 decimal places)

Site Name Strawberry 7 Fed Com #008H	Site Type Oil
Date Release Discovered 06/04/2022	API# *(if applicable)* 30-015-41507

Unit Letter	Section	Township	Range	County
H	07	19S	31E	Eddy

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) 5.4 BBLS	Volume Recovered (bbls) 3 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 Oil release from wellhead.		

State of New Mexico
Oil Conservation Division

Incident ID	nAPP2215725364
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: Kendra Ruiz Title: EHS Associate

Signature: Kendra Ruiz Date: 06/09/2022

email: Kendra.Ruiz@dvn.com Telephone: 575-748-0167

OCD Only

Received by: Jocelyn Harimon Date: 06/09/2022

Spill Volume(Bbls) Calculator	
Inputs in blue, Outputs in red	
Contaminated Soil measurement	
Area (square feet)	Depth(Ft)
363.128	0.020
Cubic Feet of Soil Impacted	7.263
Barrels of Soil Impacted	1.29
Soil Type	Clay
Barrels of Oil Assuming 100% Saturation	0.13
Saturation	Fluid present when squeezed
Estimated Barrels of Oil Released	0.06
Free Standing Fluid Only	
Area (square feet)	Depth(Ft)
363.128	0.083
Standing fluid	5.361
Total fluids spilled	5.490

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 115439

CONDITIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 115439
	Action Type: [C-141] Release Corrective Action (C-141)

CONDITIONS

Created By	Condition	Condition Date
jharimon	None	6/9/2022

APPENDIX B – Closure Criteria Research Documentation

Closure Criteria Determination				
Site Name: Strawberry 7 Federal Com #008H				
Spill Coordinates: 32.67665917,-103.9012136		X: 603019	Y: 3615976	
Site Specific Conditions		Value	Unit	Reference
1	Depth to Groundwater (nearest reference)	**>105**	feet	1
	Distance between release and nearest DTGW reference	**2,104**	feet	
		0.40	miles	
	Date of nearest DTGW reference measurement	**December 13, 2022**		
2	Within 300 feet of any continuously flowing watercourse or any other significant watercourse	3,565	feet	2
3	Within 200 feet of any lakebed, sinkhole or playa lake (measured from the ordinary high-water mark)	9,065	feet	3
4	Within 300 feet from an occupied residence, school, hospital, institution or church	55,000	feet	4
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**	11,932	feet	5
	ii) Within 1000 feet of any fresh water well or spring	10,141	feet	5
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)	6
7	Within 300 feet of a wetland	4,159	feet	7
8	Within the area overlying a subsurface mine	No	(Y/N)	8
	Distance between release and nearest registered mine	**21,280**	feet	
9	Within an unstable area (Karst Map)	Low	Critical High Medium Low	9
	Distance between release and nearest High Karst	**6,585**	feet	
10	Within a 100-year Floodplain	>500	year	10
	Distance between release and nearest FEMA Zone A (100-year Floodplain)	**16,184**	feet	
11	Soil Type	Loamy fine sand, sandy clay loam		11
12	Ecological Classification	Loamy		12
13	Geology	Piedmont alluvial deposits		13
	NMAC 19.15.29.12 E (Table 1) Closure Criteria	>100'	<50' 51-100' >100'	

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

OSE POD NO. (WELL NO.)	WELL TAG ID NO.	OSE FILE NO(S).
CP-01942 POD1		

WELL OWNER NAME(S)	PHONE (OPTIONAL)
Devon Energy	

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
6488 7 Rivers Hwy	Artesia	NM	88210

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	40	56.79	N
	LONGITUDE	103	54	4.32	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS – PLSS (SECTION, TOWNSHIP, RANGE) WHERE AVAILABLE

2. DRILLING & CASING INFORMATION

LICENSE NO.	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
1833	Jason Maley	Vision Resources, Inc

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
12/13/22	12/13/22	105	105	none

COMPLETED WELL IS: ☐ ARTESIAN *add Centralizer info below ☑ DRY HOLE ☐ SHALLOW (UNCONFINED)

STATIC WATER LEVEL IN COMPLETED WELL (FT):

DATE STATIC MEASURED:

DRILLING FLUID: ☑ AIR ☐ MUD ADDITIVES – SPECIFY:

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY:

CHECK HERE IF PITLESS ADAPTER IS INSTALLED ☐

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM (inches)	CASING MATERIAL AND/OR GRADE (include each casing string, and note sections of screen)	CASING CONNECTION TYPE (add coupling diameter)	CASING INSIDE DIAM. (inches)	CASING WALL THICKNESS (inches)	SLOT SIZE (inches)
0	80	6	2inch pvc sch 40	thread	2	Sch 40	
80	100	6	2 inch pvc sch 40	thread	2	Sch 40	020

OSE DII FEB 13 2023 PM 1:05

3. ANNULAR MATERIAL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	BORE HOLE DIAM. (inches)	LIST ANNULAR SEAL MATERIAL AND GRAVEL PACK SIZE-RANGE BY INTERVAL *(if using Centralizers for Artesian wells- indicate the spacing below)	AMOUNT (cubic feet)	METHOD OF PLACEMENT

FOR OSE INTERNAL USE

WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. CP-1942	POD NO. 1	TRN NO. 740390	
LOCATION 19S. 31E. 06 444		WELL TAG ID NO. NA	PAGE 1 OF 2

4. HYDROGEOLOGIC LOG OF WELL

DEPTH (feet bgl) FROM	DEPTH (feet bgl) TO	THICKNESS (feet)	COLOR AND TYPE OF MATERIAL ENCOUNTERED - INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES **(attach supplemental sheets to fully describe all units)**	WATER BEARING? (YES / NO)	ESTIMATED YIELD FOR WATER-BEARING ZONES (gpm)
0	30	30	red sand and white calichie	Y (N)	
30	40	10	fine red sand	Y (N)	
40	50	10	red clay	Y (N)	
50	60	10	pink sand and calichie	Y (N)	
60	70	10	red clay moist	Y (N)	
70	80	10	pink sandy calichie	Y (N)	
80	105	25	red fine sand	Y (N)	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	
				Y N	

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA:

☐ PUMP ☐ AIR LIFT ☐ BAILER ☐ OTHER -- SPECIFY:

TOTAL ESTIMATED WELL YIELD (gpm):

5. TEST; RIG SUPERVISION

WELL TEST — TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING DISCHARGE METHOD, START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

MISCELLANEOUS INFORMATION:

OSE DII FEB 13 2023 PM1:05

PRINT NAME(S) OF DRILL RIG SUPERVISOR(S) THAT PROVIDED ONSITE SUPERVISION OF WELL CONSTRUCTION OTHER THAN LICENSEE:

6. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:

J Maley Jason Maley — SIGNATURE OF DRILLER / PRINT SIGNEE NAME

12/19/22 — DATE

FOR OSE INTERNAL USE — WR-20 WELL RECORD & LOG (Version 09/22/2022)

FILE NO. CP-1942	POD NO. 1	TRN NO. 740390	
LOCATION 195.31E.06.444		WELL TAG ID NO. NA	PAGE 2 OF 2

PLUGGING RECORD

NOTE: A Well Plugging Plan of Operations shall be approved by the State Engineer prior to plugging - 19.27.4 NMAC

I. GENERAL / WELL OWNERSHIP:

State Engineer Well Number: _____

Well owner: Devon Energy Phone No.: _____

Mailing address: 6488 7 Rivers Hwy

City: Artesia State: New Mexico Zip code: 88210

II. WELL PLUGGING INFORMATION:

1) Name of well drilling company that plugged well: Vision Resources, Inc

2) New Mexico Well Driller License No.: WD 1833 Expiration Date: 12-31-23

3) Well plugging activities were supervised by the following well driller(s)/rig supervisor(s): Jason Maley

4) Date well plugging began: 12-16-22 Date well plugging concluded: 12-16-22

5) GPS Well Location: Latitude: 32 deg, 40 min, 56.79 sec
Longitude: 103 deg, 54 min, 4.32 sec, WGS 84

6) Depth of well confirmed at initiation of plugging as: 105 ft below ground level (bgl), by the following manner: tape

7) Static water level measured at initiation of plugging: dry ft bgl

8) Date well plugging plan of operations was approved by the State Engineer: yes

9) Were all plugging activities consistent with an approved plugging plan? yes If not, please describe differences between the approved plugging plan and the well as it was plugged (attach additional pages as needed):

10) Log of Plugging Activities - Label vertical scale with depths, and indicate separate plugging intervals with horizontal lines as necessary to illustrate material or methodology changes. Attach additional pages if necessary.

For each interval plugged, describe within the following columns:

Depth (ft bgl)	Plugging Material Used (include any additives used)	Volume of Material Placed (gallons)	Theoretical Volume of Borehole/ Casing (gallons)	Placement Method (tremie pipe, other)	Comments ("casing perforated first", "open annular space also plugged", etc.)
	Baroid Hole Plug	155	154.21	Open Hole	

MULTIPLY		BY		AND OBTAIN
cubic feet	x	7.4805	=	gallons
cubic yards	x	201.97	=	gallons

III. SIGNATURE:

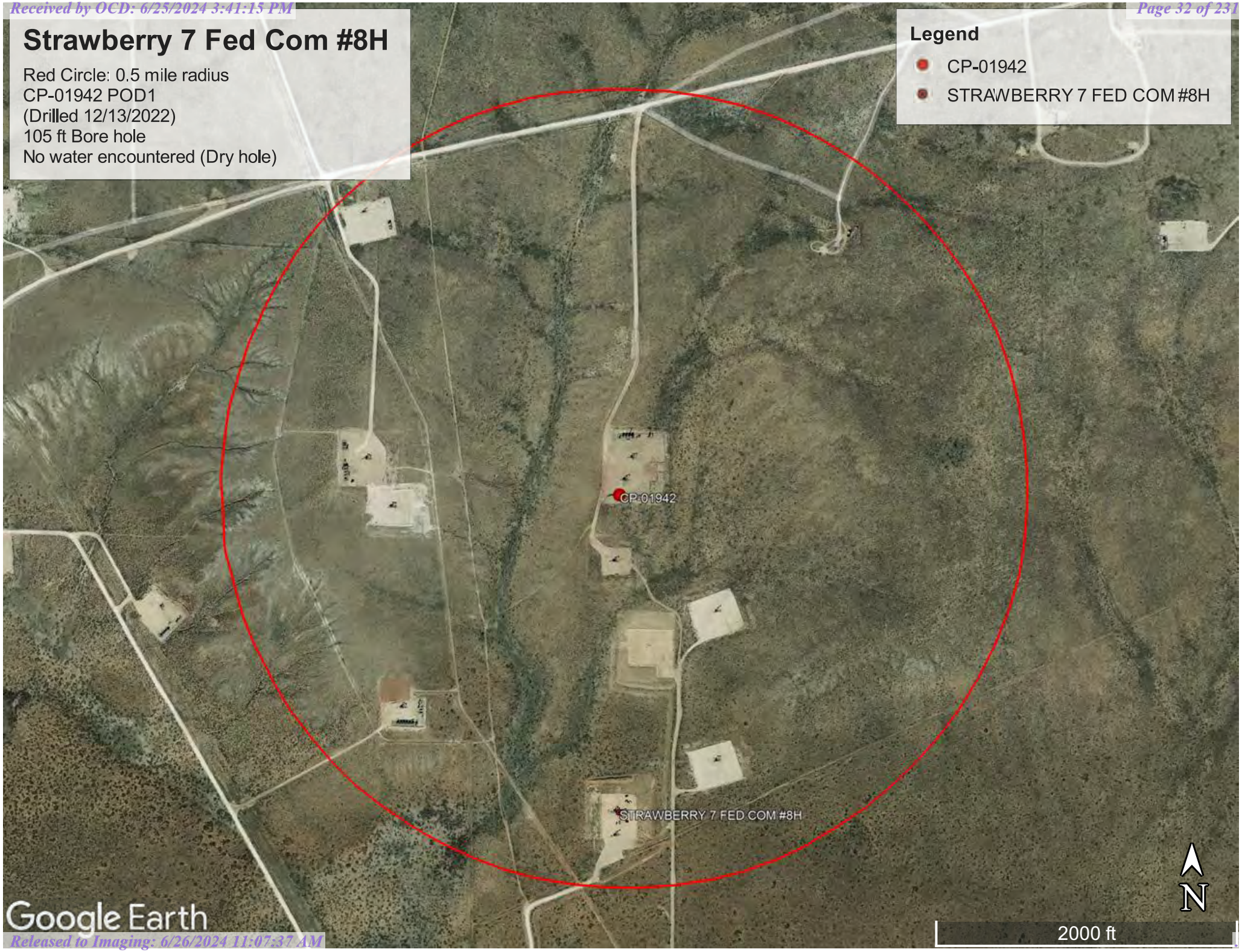
I, Jason Maley, say that I am familiar with the rules of the Office of the State Engineer pertaining to the plugging of wells and that each and all of the statements in this Plugging Record and attachments are true to the best of my knowledge and belief.

Signature of Well Driller

12/19/22
Date

Strawberry 7 Fed Com #8H

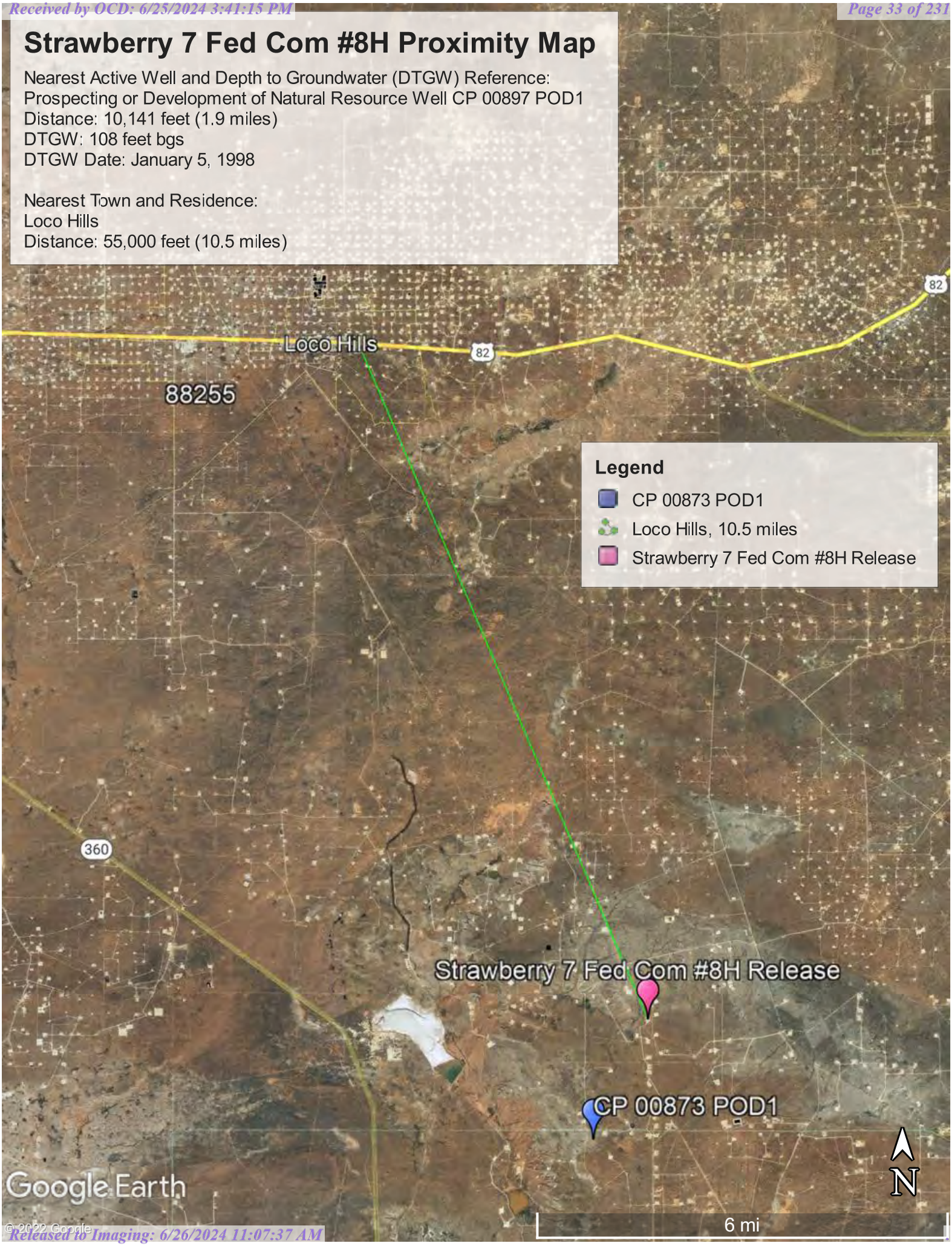
Red Circle: 0.5 mile radius
CP-01942 POD1
(Drilled 12/13/2022)
105 ft Bore hole
No water encountered (Dry hole)



Strawberry 7 Fed Com #8H Proximity Map

Nearest Active Well and Depth to Groundwater (DTGW) Reference:
Prospecting or Development of Natural Resource Well CP 00897 POD1
Distance: 10,141 feet (1.9 miles)
DTGW: 108 feet bgs
DTGW Date: January 5, 1998

Nearest Town and Residence:
Loco Hills
Distance: 55,000 feet (10.5 miles)



U.S. Fish and Wildlife Service
National Wetlands Inventory

Intermittent 3565 feet

June 18, 2022

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.

U.S. Fish and Wildlife Service
National Wetlands Inventory

Pond 9065 feet

June 18, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
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National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

New Mexico Office of the State Engineer
Water Right Summary

get image list

WR File Number: CP 00873 **Subbasin:** CP **Cross Reference:** -

Primary Purpose: PRO 72-12-1 PROSPECTING OR DEVELOPMENT OF NATURAL RESOURCE

Primary Status: PMT PERMIT

Total Acres: 0 **Subfile:** - **Header:** -

Total Diversion: 0 **Cause/Case:** -

Agent: SANTA FE ENERGY
Contact: CORKY GLENN
Agent: NORTON DRILLING
Contact: CORKY GLENN
Agent: YATES PETROLEUM
Agent: SANTA FE SNYDER
Contact: CORKY GLENN

x

Documents on File

	Trn #	Doc	File/Act	Status 1	Status 2	Transaction Desc.	From/ To	Acres	Diversion	Consumptive
get images	550904	72121	2000-08-14	PMT	APR	CP 00873	T		3	
get images	550830	72121	2000-04-27	PMT	APR	CP 00873	T		3	
get images	550817	72121	1999-01-15	PMT	APR	CP 00873	T		3	
get images	550808	72121	1997-11-10	PMT	MTR	CP 00873	T		3	

x

Current Points of Diversion

(NAD83 UTM in meters)

POD Number	Well Tag	Source	Q 64	Q16	Q4	Sec	Tws	Rng	X	Y	Other Location Desc
CP 00873 POD1		Shallow	1	1	19	19S	31E		601772	3613147*	

***An (*) after northing value indicates UTM location was derived from PLSS - see Help**

New Mexico Office of the State Engineer

Point of Diversion Summary

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

Well Tag	POD Number	Q64	Q16	Q4	Sec	Tws	Rng	X	Y
NA	CP 01907 POD1	4	2	2	18	19S	31E	603017	3614737

Driller License: **Driller Company:**

Driller Name:

Drill Start Date: **Drill Finish Date:** **Plug Date:**

Log File Date: **PCW Rcv Date:** **Source:**

Pump Type: **Pipe Discharge Size:** **Estimated Yield:**

Casing Size: **Depth Well:** **Depth Water:**

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 64	q 16	q 4	Sec	Twn	Rng	X	Y	Distance
CP 01907	CP	MON	0	DEVON ENERGY	ED	CP 01907 POD1	NA				4	2	2	18	19S	31E	603017	3614737	1238
CP 00873	CP	PRO	0	NORTON DRILLING	LE	CP 00873 POD1				Shallow		1	1	19	19S	31E	601772	3613147*	3091
CP 01032	CP	STK	3	BLM	ED	CP 01032 POD1					2	1	4	19	19S	31E	602600	3612362	3637
CP 00829	CP	PLS	3	SNYDER RANCHES	LE	CP 00829 POD1				Shallow		2	4	16	19S	31E	606165	3614009*	3710
CP 00357	CP	SRO	48	GULF OIL CORPORATION	ED	CP 00357 POD3					1	2	4	24	19S	30E	601276	3612437*	3944
					ED	CP 00357 POD1				Shallow	4	4	1	24	19S	30E	600667	3612631*	4089
					ED	CP 00357 POD2				Shallow	4	3	1	24	19S	30E	600265	3612627*	4335
CP 00767	CP	EXP	0	P.R. PATTON	ED	CP 00767 POD1						3	2	35	18S	30E	599300	3619158*	4894
CP 01554	CP	CPS	0	ALAN HOPPER	LE	CP 01554 POD1					2	2	1	22	19S	31E	607165	3613354	4905
					LE	CP 01554 POD2					2	2	1	22	19S	31E	607165	3613322	4922

Record Count: 10

UTMNAD83 Radius Search (in meters):

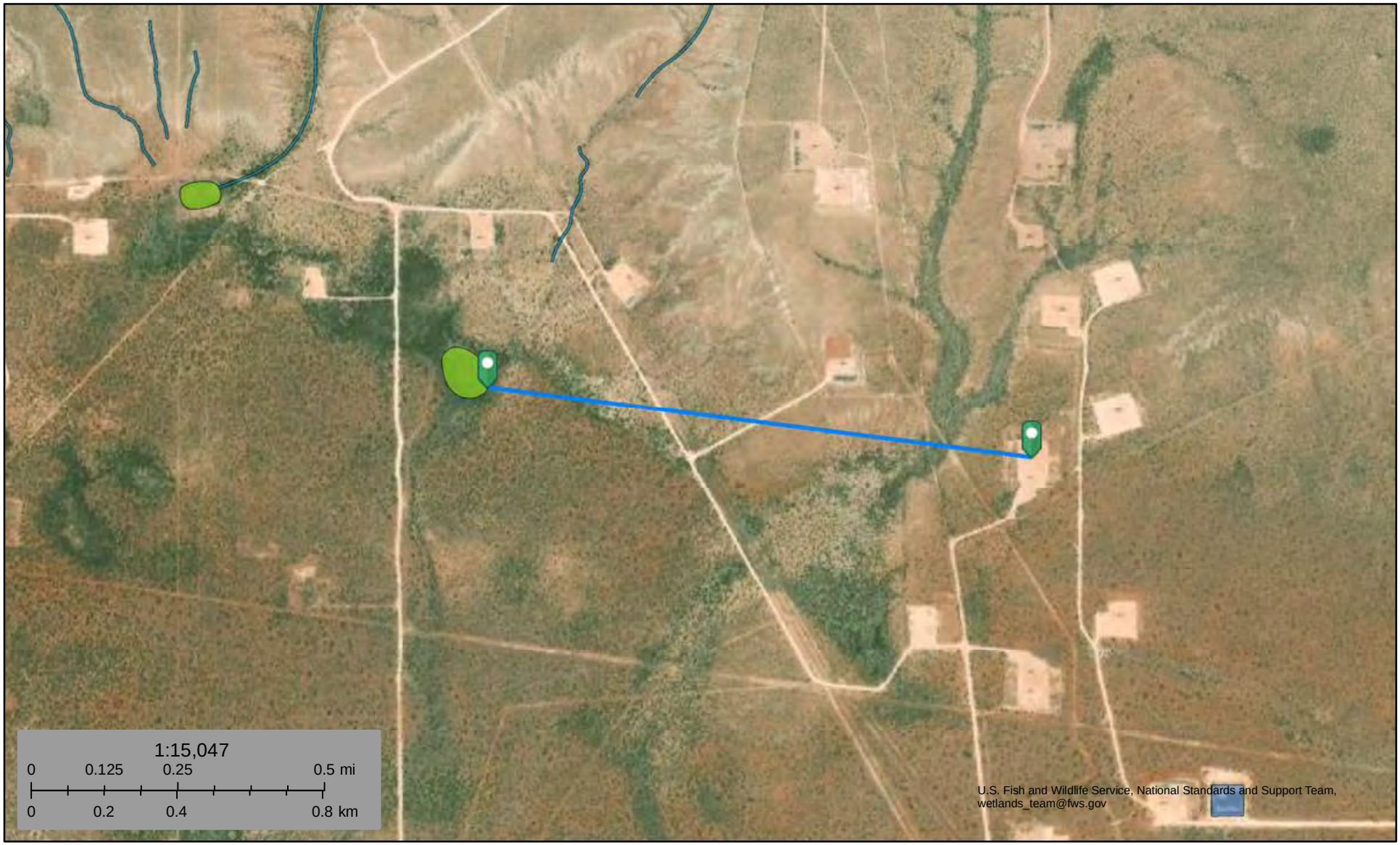
Easting (X): 603019 **Northing (Y):** 3615976 **Radius:** 5000

Sorted by: Distance

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

U.S. Fish and Wildlife Service
National Wetlands Inventory

Wetland 4159 feet



June 18, 2022

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
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- Lake
- Other
- Riverine

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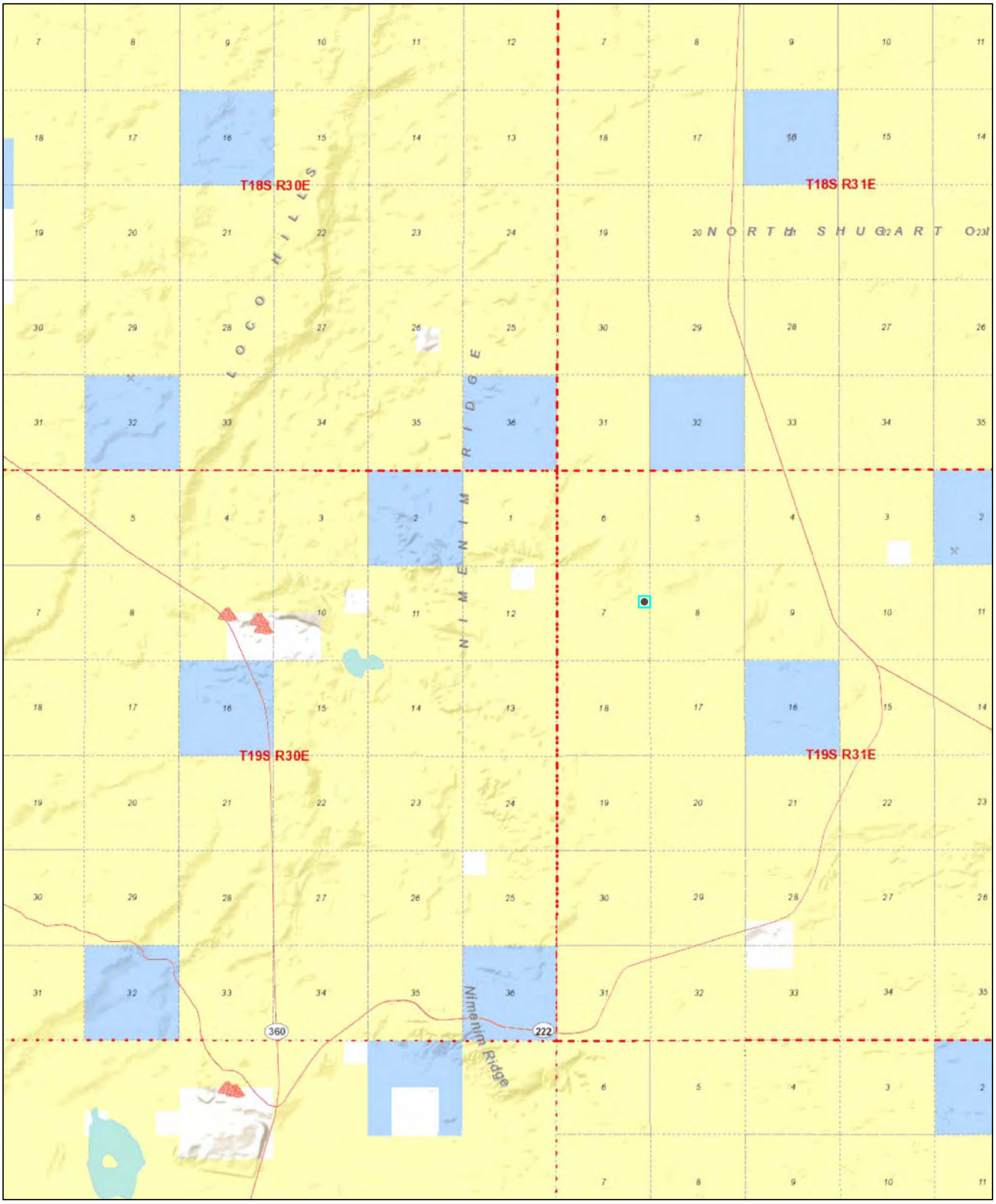
National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

Active Mines in New Mexico



6/18/2022, 6:00:46 PM

Township / Range
Sections

Land Ownership
Bureau of Land Management
Bureau of Reclamation
Department of Agriculture
Department of Defense
Department of Energy
National Park Service
Private Land
State Game and Fish
State Land
State Parks
Tribal
US Fish and Wildlife Service
US Forest Service

Registered Mines
Aggregate, Stone etc.
Aggregate, Stone etc.
Potash

1:72,224

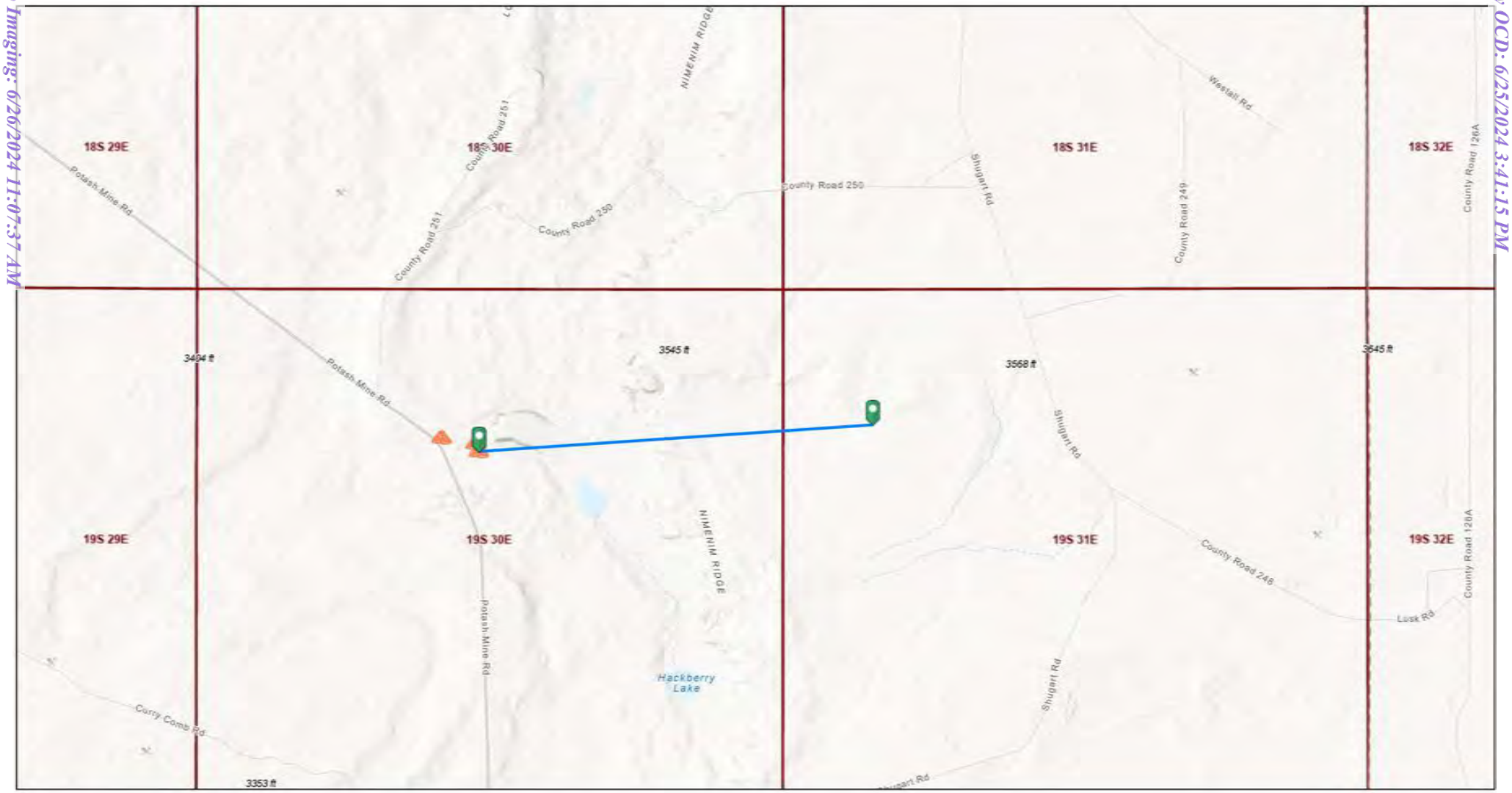
0 0.5 1 2 mi
0 1 2 4 km

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

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e577974664d689b47790897ca2795)

Mine 21,280 feet



5/13/2024, 5:14:45 PM

Registered Mines

- Aggregate, Stone etc.
- Potash
- PLSS Townships

1:72,224

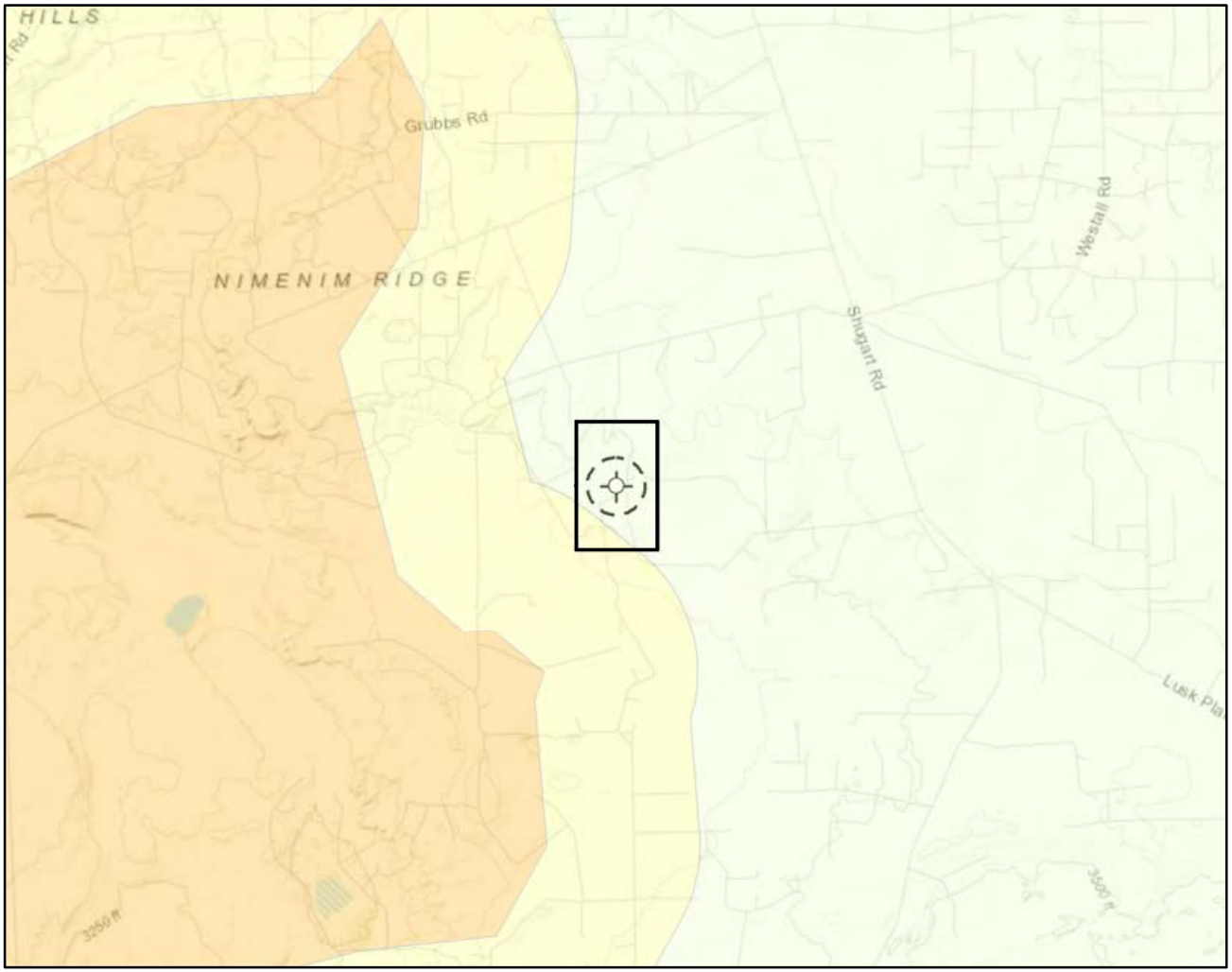
0 0.75 1.5 3 mi

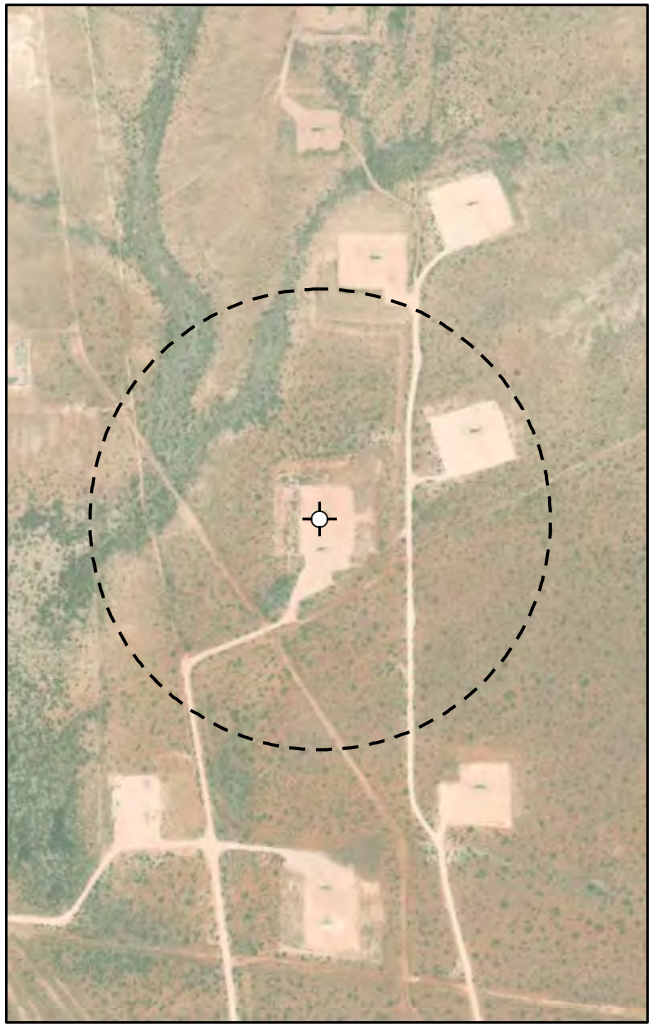
0 1 2 4 km

U.S. BLM, Texas Parks & Wildlife, CONANP, Esri, TomTom, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, USGS, EPA, NPS, USDA, USFWS, Esri, NASA, NGA, USGS, FEMA, BLM

EMNRD MMD GIS Coordinator

NM Energy, Minerals and Natural Resources Department (http://nm-emnrd.maps.arcgis.com/apps/webappviewer/index.html?id=1b5e57797466 4d6896477908 97ca2795)





Karst Potential

- Critical
- High
- Medium
- Low

Site Location

Site Buffer (1,000 ft.)

Overview Map

0 0.25 0.5 1 mi

Detail Map

0 150 300 600 ft.

VERTEX

Map Center:
Lat/Long: 32.676591, -103.901310

NAD 1983 UTM Zone 13N
Date: Jun 28/22

N

Karst Potential
Strawberry 7 Fed Com #8H

FIGURE:
X

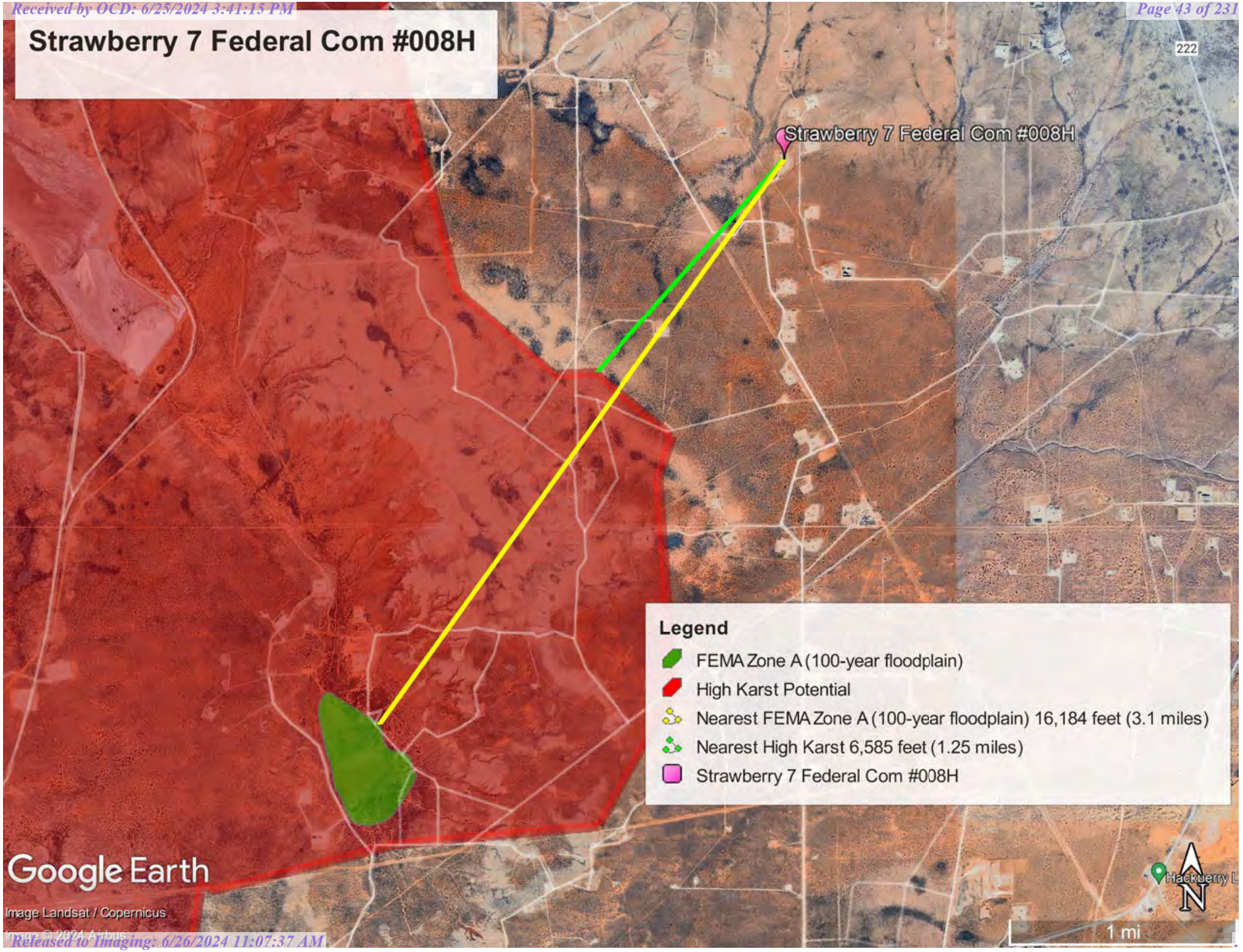
devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Inset Map, ESRI 2018; Overview Map: ESRI World Topographic. Karst potential data sourced from Rosswell Field Office, Bureau of Land Management, 2020 or United States Department of the Interior, Bureau of Land Management. (2018). Karst Potential.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2022\22E-02063 - Strawberry 7 Fed Com #8H\Figure X Karst Potential Strawberry 7 Fed Com #8H.mxd


Strawberry 7 Federal Com #008H
222
Strawberry 7 Federal Com #008H
Legend
FEMA Zone A (100-year floodplain)
High Karst Potential
Nearest FEMA Zone A (100-year floodplain) 16,184 feet (3.1 miles)
Nearest High Karst 6,585 feet (1.25 miles)
Strawberry 7 Federal Com #008H
Google Earth
Image Landsat / Copernicus
Image © 2024 Airbus
Hackberry L
N
1 mi

National Flood Hazard Layer FIRM

FEMA

103°54'23"W 32°40'51"N

103°45'53"W 32°40'21"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map Orthoimagery. Data refreshed 2020

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) Zone, Zone A, AO, AH, 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
- 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

The pin was placed at: longitude 103°54'23"W, latitude 32°40'51"N

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 was derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 6/25/2022 at 8:02:21 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

June 18, 2022

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

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 Scale: 1:1,110 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 15 30 60 90

Feet: 0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

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 17, Sep 12, 2021

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

Date(s) aerial images were photographed: Feb 7, 2020—May 12, 2020

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
BA	Berino loamy fine sand, 0 to 3 percent slopes	6.0	100.0%
Totals for Area of Interest		**6.0**	**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

BA—Berino loamy fine sand, 0 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1w42
Elevation: 2,000 to 5,700 feet
Mean annual precipitation: 6 to 14 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: 99 percent
Minor components: 1 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Berino

Setting

Landform: Plains, fan piedmonts
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 12 inches: loamy fine sand
H2 - 12 to 58 inches: sandy clay loam
H3 - 58 to 60 inches: clay loam

Properties and qualities

Slope: 0 to 3 percent
Depth to restrictive feature: More than 80 inches
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 content: 40 percent
Maximum salinity: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Sodium adsorption ratio, maximum: 1.0
Available water supply, 0 to 60 inches: Moderate (about 8.4 inches)

Interpretive groups

Land capability classification (irrigated): 3e
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: B
Ecological site: R042XC007NM - Loamy
Hydric soil rating: No

Minor Components

Pajarito

Percent of map unit: 1 percent
Ecological site: R042XC003NM - Loamy Sand
Hydric soil rating: No

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USDA Natural Resources Conservation Service

Ecological site R042XC007NM
Loamy

Accessed: 05/04/2022

General information

Figure 1. Mapped extent

Areas shown in blue indicate the maximum mapped extent of this ecological site. Other ecological sites likely occur within the highlighted areas. It is also possible for this ecological site to occur outside of highlighted areas if detailed soil survey has not been completed or recently updated.

Table 1. Dominant plant species

Tree	Not specified
Shrub	Not specified
Herbaceous	Not specified

Physiographic features

This site occurs on uplands landforms, mainly on hill slopes, ridges, plains, terraces and some fan remnants. Slopes range from 1 to 5 percent and average about 3 percent. Average annual precipitation is about 8 to 14 inches. Elevations range from 2,842 to 5,000 feet.

Table 2. Representative physiographic features

Landforms	(1) Plain (2) Terrace (3) Fan piedmont
Flooding frequency	None
Ponding frequency	None
Elevation	2,842–5,000 ft
Slope	0–5%
Aspect	E, S, W

Climatic features

The average annual precipitation ranges from 8 to 13 inches. Variations of 5 inches, more or less, are common. Over 80 percent of the precipitation falls from April through October. Most of the summer precipitation comes in the form of high intensity short duration thunderstorms.
Temperatures are characterized by distinct seasonal changes and large annual and diurnal temperature changes. The average annual temperature is 61 degrees with extremes of 25 degrees below zero in the winter to 112 degrees in the summer.
The average frost-free season is 207 to 220 days. The last killing frost is in late March or early April, and the first killing frost is in late October or early November.
Temperature and rainfall both favor warm season perennial plant growth. In years of abundant spring moisture, annual forbs and cool season grasses can make up an important component of this site. Strong winds blow from the southwest in January through June rapidly drying out the soil during a critical time for cool season plant growth.

Climate data was obtained from http://www.wrcc.sage.dri.edu/summary/climsmnm.html web site using 50% probability for freeze-free and frost-free seasons using 28.5 degrees F and 32.5 degrees F respectively.

Table 3. Representative climatic features

Frost-free period (average)	221 days
Freeze-free period (average)	240 days
Precipitation total (average)	13 in

Influencing water features

This site is not influenced by wetland or streams.

Soil features

The soils of this site are deep to moderately deep. The moderately deep soils have either a petrocalcic, petrogypsic or gypsum horizon between 30 and 40 inches.

Surface textures are loam, silt loam, very fine sandy loam, or clay loam. Substratum textures are loam, silty clay loam, clay loam, or silt loams. Subsoil textures are silt loam , clay loam silty clay loam, gravelly loam, gravelly clay loam or very gravelly loam. Permeability is moderate to slow and the available water holding capacity is high to moderate. The Atoka, Reeves, Russler, Milner soils may have highr amounts of CaC03, ranging as high as 40 percent in the subsoil. Rock fragments range fro 5 to 50 percent in the subsoil. Reeves, Rusler, Milner, Holloman soils will have 40 to 80 percent gypsum in the underlying material.

Maximum and minimum values listed below represent the characteristic soils for this site.

Characteristic Soils:

Atoka (petrocalcic)
Bigetty
Reagan
Reakor
Reeves (gypsum)
Russler (gypsum)
Largo
Russler (gypsum)
Largo
Berino
Tinney
Midessa
Ratliff

Holloman (gypsum)
Milner (gypsum)

Table 4. Representative soil features

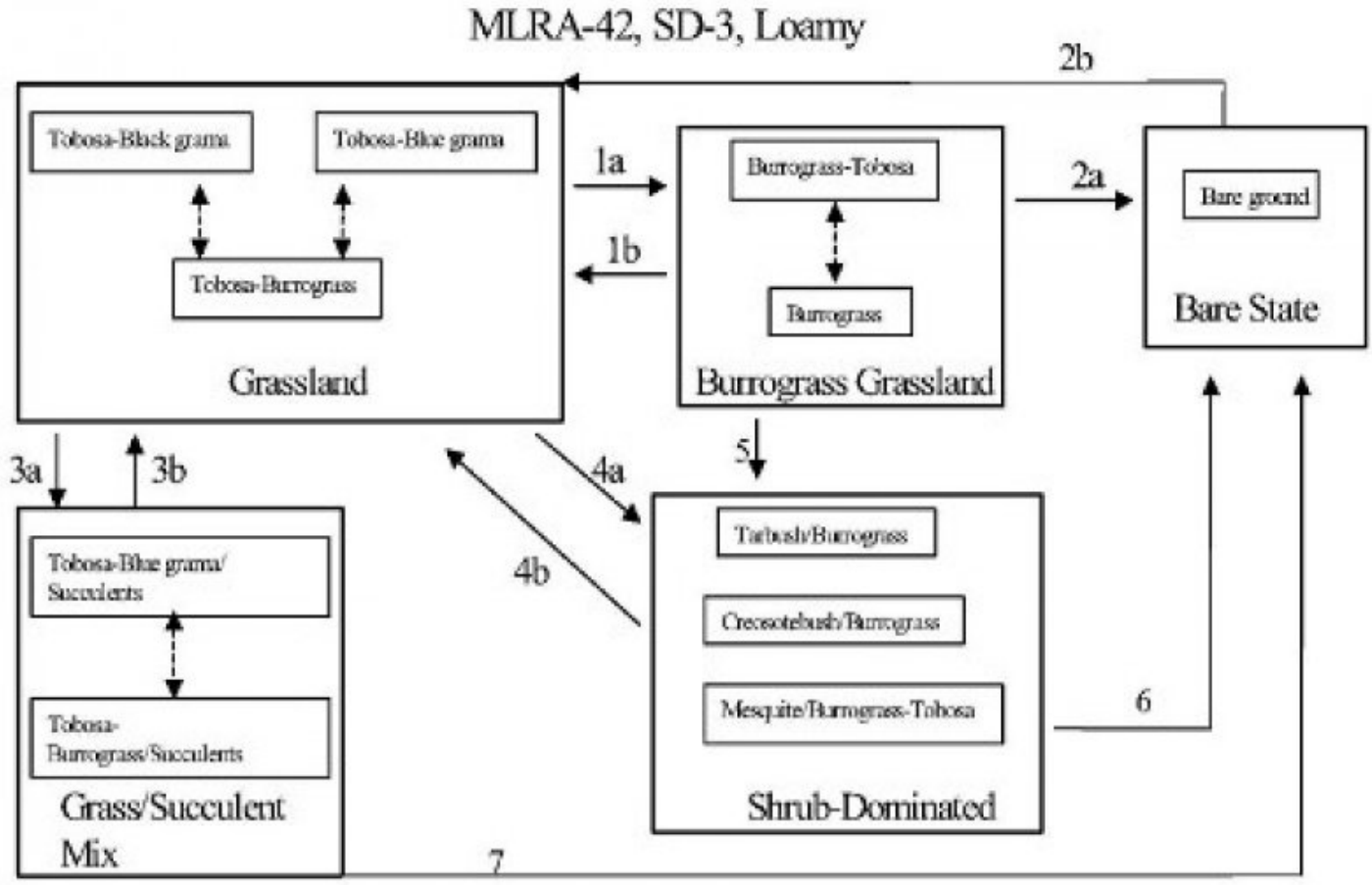
Surface texture	(1) Loam (2) Very fine sandy loam (3) Silt loam
Family particle size	(1) Loamy
Drainage class	Well drained to somewhat excessively drained
Permeability class	Moderate to slow
Soil depth	30–72 in
Surface fragment cover <=3"	0–5%
Surface fragment cover >3"	0%
Available water capacity (0-40in)	5–12 in
Calcium carbonate equivalent (0-40in)	0–10%
Electrical conductivity (0-40in)	0–8 mmhos/cm
Sodium adsorption ratio (0-40in)	0–6
Soil reaction (1:1 water) (0-40in)	6.6–8.4
Subsurface fragment volume <=3" (Depth not specified)	0–5%
Subsurface fragment volume >3" (Depth not specified)	0%

Ecological dynamics

Overview: The Loamy site is associated with the Gyp Upland ecological site with which it intergrades. There is a pronounced increase in alkali sacaton along this interface. The loamy site is also associated with the Gravelly and Shallow ecological sites from which it receives run-on water. The Draw site often dissects Loamy sites and is distinguished from the Loamy site by increased production or greater densities of woody species. The historic plant community has a grassland aspect, dominated by grasses with shrubs and half-shrubs sparse and evenly distributed. Tobosa, black grama and blue grama are the dominant species. Retrogression within this state is characterized by a decrease in black and blue grama and an increase in burrograss. Continuous overgrazing and drought can initiate a transition to a Burrograss- Grassland state. Continued reduction in grass cover and resulting infiltration problems may eventually effect a change to a Bare State, with very little or no remaining grass cover. Alternatively, creosotebush, tarbush or mesquite may expand or invade. Transitions back to a Grassland State from a Bare or Shrub-Dominated state are costly and may not be economically feasible. Decreased fire frequency may play a part in the transition to the Grass/Succulent Mix state with increased amounts of cholla and prickly pear.

State and transition model

Plant Communities and Transitional Pathways (diagram)



1a. Soil drying, overgrazing, drought, soil surface sealing. 1b. Restore natural overland flow, increase infiltration, prescribed grazing.

2a. Severe reduction in cover, soil surface sealing, decreased infiltration, erosion. 2b. Restore hydrology, break up physical crust, range seeding, prescribed grazing.

3a. Lack of fire, overgrazing, hail storms or other physical disturbance, drought. 3b. Prescribed fire, brush control, prescribed grazing.

4a. Seed dispersal of shrubs, persistent loss of grass cover, competition by shrubs, lack of fire. 4b. Brush control, range seeding -dependent on amount of grass (seed bank) remaining.

5. Loss of grass cover, seed dispersal of shrubs, competition by shrubs.

6. & 7. Brush control with continued loss of grass cover, soil sealing, erosion.

Figure 4.

State 1
Historic Climax Plant Community

Community 1.1
Historic Climax Plant Community

State Containing Historic Climax Plant Community
Grassland:

The historic plant community has a grassland aspect, dominated by grasses with shrubs and half-shrubs sparse and evenly distributed. Black grama, blue grama, and tobosa are the dominant grass species. There are a variety of

perennial forbs and their production varies widely by season and year. Globemallow, verbena, groundsels, croton and filaree are forbs commonly found on this site. Fourwing saltbush and winterfat are two of the more palatable shrubs. The Loamy ecological site encompasses a wide variety of soils, with surface textures ranging from sandy loams to clay loams. Soil depths range from shallow to very deep and can include sub surface features such as calcic, petrocalcic, and gypsic horizons. These variations cause differences in plant community composition and dynamics. Black grama is found at highest densities on coarser textured sandy loams, with blue grama preferring finer textured loam and silt loam, and tobosa favoring lower landscape positions and loam to clay loam surface textures. Burrograss may often be the dominant grass species on silty soils, perhaps in part due to the seedlings ability to auger into and establish on physically crusted soils. Gypsum influenced soils typically have greater amounts of tobosa, burrograss, and ephedra. There is greater representation of sideoats and vine mesquite within the tobosa-blue grama community. Retrogression under continuous heavy grazing results in a decrease of black grama, blue grama, sideoats grama, plains bristlegrass, bush muhly, cane bluestem, vine mesquite, winterfat, and fourwing saltbush. Species such as burrograss, threeawns, sand dropseed, sand muhly, and broom snakeweed increase under continuous heavy grazing or prolonged periods of drought. Under continued retrogression burrograss can completely dominate the site. Creosotebush, tarbush, and mesquite, can also dominate. Cholla and prickly pear can increase on areas that are disturbed or overgrazed.

Diagnosis: Tobosa, black grama, and blue grama are the dominant species. Grass cover is uniformly distributed with few large bare areas. Shrubs are sparse and evenly distributed. Slopes range from level to gently sloping and usually display limited evidence of active rills and gully formation if plant cover remains intact. Litter movement associated with overland flow is limited to smaller size class litter and short distances.

Other shrubs include: yucca, mesquite, tarbush, cholla and creosote bush.

Other forbs include: desert holly, scorpionweed, bladderpod, flax, nama, fleabane, Indianwheat, Indian blanket flower, groundcherry, deerstongue, and rayless goldenrod.

Table 5. Annual production by plant type

Plant Type	Low (Lb/Acre)	Representative Value (Lb/Acre)	High (Lb/Acre)
Grass/Grasslike	585	833	1080
Forb	39	55	72
Shrub/Vine	26	37	48
Total	**650**	**925**	**1200**

Table 6. Ground cover

Tree foliar cover	0%
Shrub/vine/liana foliar cover	0%
Grass/grasslike foliar cover	15-30%
Forb foliar cover	0%
Non-vascular plants	0%
Biological crusts	0%
Litter	25-30%
Surface fragments >0.25" and <=3"	0%
Surface fragments >3"	0%
Bedrock	0%
Water	0%
Bare ground	40-50%

Figure 6. Plant community growth curve (percent production by month).

NM2807, R042XC007NM Loamy HCPC. R042XC007NM Loamy HCPC Warm Season Plant Community..

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
0	0	0	5	10	10	25	30	15	5	0	0

State 2
Burrograss-Grassland

Community 2.1
Burrograss-Grassland

Burrograss-Grassland: Changes in hydrology resulting in decreased available soil moisture, reduces grass cover and increases bare ground. Burrograss is the dominant grass. Tobosa cover is variable and can range from sizeable areas to small patches occupying only depressions or the lowest and wettest positions within the site. Threeawns, ear muhly, sand muhly, and fluffgrass occur at increased densities compared to the grassland state. Shrub densities may increase especially mesquite, creosotebush or tarbush. Retrogression within this state is characterized by a further decrease in grass cover and increased bare ground. Further deterioration of this site can result in the transition to a bare state or becoming shrub dominated.

Diagnosis: Burrograss is the dominant species. Grass cover is no longer uniformly distributed, instead tending to be patchy with large areas of bare ground present. Physical crusts are present in bare areas reducing infiltration and suppressing seedling establishment by any grass species other than burrograss.

Transition to Burrograss-Grassland (1a): Transitions from grassland to a burrograss-grassland state may occur due to changes in hydrology. Gullies, roads or obstructions that alter natural water flow patterns may cause this transition. Changes in surface hydrology may also occur due to overgrazing or drought. The reduction in grass cover promotes increased soil physical crusts and reduces infiltration. 5

Key indicators of approach to transition:
? Diversion of overland flow resulting in decreased soil moisture.
? Increase in amount of burrograss cover
? Reduction in grass cover and increase in size and frequency of bare patches.
? Formation of physical crusts—indicating reduced infiltration.
? Evidence of litter movement—indicating loss or redistribution of organic matter.

Transition back to Grassland (1b) The natural hydrology of the site must be returned. Culverts, turnouts, or rerouting roads may help re-establish natural overland flow, if roads or trails have altered the hydrology. Erosion control structures or shaping and filling gullies may help regain natural flow patterns and establish vegetation if the flow has been channeled. Breaking up physical crusts by soil disturbance may promote infiltration and seedling emergence. Allow natural revegetation to take place. Prescribed grazing will help ensure proper forage utilization and reduce grass loss due to grazing.

State 3
Bare State

Community 3.1
Bare State

Bare State: Extremely low ground cover, soil degradation and erosion characterize this state. Very little vegetation remains. Burrograss is the dominant grass and cover is extremely patchy. Physical soil crusts are extensive. Erosion and resource depletion increase as site degrades.

Diagnosis: Very little cover remains. Erosion is evident by soil sealing, water flow patterns, pedestals or terracettes. Rills and gullies may be present and active.

Transition to Bare State (2a): Extended drought, continuous heavy grazing, or other disturbance that severely

depletes grass cover can effect this transition. As grass cover decreases, sheet flow and erosion increase, and physical soil crusts form, thereby further reducing infiltration.

Key indicators of approach to transition:
? Continued reduction in grass cover.
? Increased soil surface sealing.
? Increased erosion.
? Reduced aggregate stability in bare areas.

Transition back to Grassland (2b) Restore the hydrology, see (1a). With the extent of grass loss range seeding may be necessary. Utilizing livestock or mechanical means to break up the physical crusts may increase infiltration and aid seedling establishment. Prescribed grazing will help ensure adequate deferment period following seeding, and proper forage utilization once the grass stand is well established. The degree to which this site is capable of recovery depends on the restoration of hydrology, extent of degradation to soil resources, and adequate rainfall necessary to establish grasses.

State 4
Grass/Succulent Mix

Community 4.1
Grass/Succulent Mix

Grass / Succulent Mix: Increased representations of succulents characterize this site. Increased densities of cholla or pricklypear is recognized as a management concern, but their impact on grass production is unclear. Light to medium cholla or prickly pear infestation doesn't seem to greatly reduce grass production, however it limits access to palatable grasses and interferes with livestock movement and handling. Tobosa and blue grama are the dominant species on this site. Retrogression within this site is characterized by a decrease in blue grama and an increase in succulents, tobosa and burrograss.

Diagnosis: Cholla or prickly pear is found at increased densities. Grass cover is variable ranging from uniformly distributed to patchy with frequent areas of bare ground present. Tobosa or blue grama is the dominant grass species.

Transition to Grass/Succulent Mix (3a): If fire was historically a part of desert grassland ecosystem and played a role in suppressing seedlings of shrubs and succulents, then fire suppression may favor the increase of succulents.1 Heavy grazing by livestock or other physical disturbances may help disseminate seed and increase the establishment of succulents. Areas historically overgrazed by sheep are sometimes associated with higher densities of Succulents. Intense hailstorms can spread pricklypear by breaking off joints causing new plants to take root.3 During severe drought perennial grass cover can decline significantly, leaving resources available for use by more drought tolerant succulents. Cholla and pricklypear are both adapted to and favored by drought due to the ability of their shallow, wide spreading root systems to absorb and store water.4

Key indicators of approach to transition:
? Decrease or change in distribution of grass cover.
? Increase in amount of succulent seedlings.
? Increased cover of succulents.

Transition back to Grassland (3b) Fire is an effective means of controlling cholla and prickly pear if adequate grass cover remains to carry fire.2 Cholla greater than two feet tall or pricklypear with a large amount of pads (>15-20) are harder to kill. Chemical control is effective in controlling prickly pear and cholla; apply when growth starts in May. Hand grubbing is also effective if cholla or pricklypear is severed 2-4 inches below ground and care is taken not to let broken joints or pads take root. Stacking and burning piles and grubbing during winter or drought help keeps broken joints and pads from rooting. Prescribed grazing will help ensure proper forage utilization and sustain grass cover.

State 5
Shrub Dominated

Community 5.1
Shrub Dominated

Shrub Dominated: Increased shrub cover characterizes this state. Mesquite, creosotebush, and/or tarbush are the dominant shrub species. Burrograss or tobosa is the dominant grass species. Grass cover is decreased, typically patchy with large bare areas present; however, sometimes grass cover can remain relatively high for extended periods when associated with light to moderate infestations of mesquite. Variations in soil characteristics play a part in determining which shrub species increase. Mesquite is well adapted to a wide range of soil types, but increases more often on deep soils low in carbonates, that have a sandy surface overlying finer textured soils. Tarbush prefers finer textured, calcareous soils, usually in lower positions that receive some extra water. Creosotebush is less tolerant of fine textured soils, preferring sandy, calcareous soils that have some gravel. Creosotebush also does well on soils that are shallow over caliche. Retrogression within this state is characterized by a decrease in tobosa, and an increase in burrograss. As the site continues to degrade shrub cover continues to increase and grass cover is severely reduced.

Diagnosis: Mesquite, Creosotebush, and/or tarbush are the dominant shrubs. Blue grama and black grama cover is low or absent. Burrograss or tobosa are the dominant grasses. Typically grass cover is patchy with large interconnected bare areas present. Physical soil crusts are present, especially on silt loam surface soils.

Transition to Shrub Dominated (4a): Wildlife and livestock consume and disperse mesquite seeds. Flood events may wash creosote or tarbush seeds off adjacent gravelly sites onto the loamy site and supply adequate moisture for germination. Persistent loss of grass cover due to overgrazing or drought can cause large bare patches, providing competition free areas for shrub seedling establishment. As shrub cover increases, competition for soil resources, especially water, becomes a major factor in further reducing grass cover. Reduction of fire, due to either fire suppression policy or loss of adequate fine fuels may increase the probability of shrub encroachment. Increased soil surface physical crusts and associated decreased infiltration, may prevent the establishment of grass seedlings.

Transition to Shrub Dominated (5): The dispersal of creosotebush, tarbush or mesquite seed, combined with loss of grass cover and resource competition by shrubs may cause this transition.

Key indicators of approach to transition:
? Decreased grass and litter cover.
? Increased bare patch size.
? Increased physical soil crusts.
? Increased amount of mesquite, creosotebush, or tarbush seedlings.
? Increased shrub cover.

Transition back to Grassland (4b) Brush control will be necessary to remove shrubs and eliminate competition for resources necessary for grass establishment or reproduction. Seeding may be necessary on those sites where desired grass species are absent or very limited. Pitting and seeding may increase the chances of successful grass establishment. Prescribed grazing will help ensure adequate time is elapsed before grazing seeded area is allowed and proper forage utilization following seeding establishment.

Transition to Bare State (6): If grass cover on the shrub-dominated state is severely limited and shrubs are removed a bare state may result. This transition will depend on amount of grasses or seed remaining, whether site is seeded, or if seeding is successful.

Transition to Bare State (7): Removal of succulents and continued overgrazing or drought may cause loss of remaining grasses and erosion. Soil surface physical crusting may also be an important factor in inhibiting grass seedling establishment

Additional community tables

Table 7. Community 1.1 plant community composition

Group	Common Name	Symbol	Scientific Name	Annual Production (Lb/Acre)	Foliar Cover (%)
Grass/Grasslike					

Grass/Grasslike					
1	**Warm Season**			278–324	
	tobosagrass	PLMU3	*Pleuraphis mutica*	278–324	–
2	**Warm Season**			9–46	
	burrograss	SCBR2	*Scleropogon brevifolius*	9–46	–
3	**Warm Season**			231–278	
	black grama	BOER4	*Bouteloua eriopoda*	231–278	–
	blue grama	BOGR2	*Bouteloua gracilis*	231–278	–
4	**Warm Season**			28–46	
	sideoats grama	BOCU	*Bouteloua curtipendula*	28–46	–
5	**Warm Season**			46–93	
	bush muhly	MUPO2	*Muhlenbergia porteri*	46–93	–
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	46–93	–
6	**Warm Season**			9–28	
	Arizona cottontop	DICA8	*Digitaria californica*	9–28	–
7	**Warm Season**			46–93	
	threeawn	ARIST	*Aristida*	46–93	–
	muhly	MUHLE	*Muhlenbergia*	46–93	–
	sand dropseed	SPCR	*Sporobolus cryptandrus*	46–93	–
8	**Warm Season**			28–46	
	Graminoid (grass or grass-like)	2GRAM	*Graminoid (grass or grass-like)*	28–46	–
Shrub/Vine					
9	**Shrub**			9–28	
	fourwing saltbush	ATCA2	*Atriplex canescens*	9–28	–
	jointfir	EPHED	*Ephedra*	9–28	–
	winterfat	KRLA2	*Krascheninnikovia lanata*	9–28	–
	cane bluestem	BOBA3	*Bothriochloa barbinodis*	5–24	–
	Arizona cottontop	DICA8	*Digitaria californica*	5–24	–
	plains bristlegrass	SEVU2	*Setaria vulpiseta*	5–24	–
10	**Shrub**			9–28	
	javelina bush	COER5	*Condalia ericoides*	9–28	–
	broom snakeweed	GUSA2	*Gutierrezia sarothrae*	9–28	–
	Grass, annual	2GA	*Grass, annual*	5–15	–
11	**Shrubs**			9–28	
	Shrub (>.5m)	2SHRUB	*Shrub (>.5m)*	9–28	–
Forb					
12	**Forb**			9–46	
	threadleaf ragwort	SEFLF	*Senecio flaccidus var. flaccidus*	9–46	–
	globemallow	SPHAE	*Sphaeralcea*	9–46	–
	verbena	VEPO4	*Verbena polystachya*	9–46	–
	broom snakeweed	GUSA2	*Gutierrezia sarothrae*	5–15	–
	pricklypear	OPUNT	*Opuntia*	5–15	–
13	**Forb**			9–28	
	croton	CROTO	*Croton*	9–28	–

	woolly groundsel	PACA15	*Packera cana*	9–28	–
14	**Forb**			9–28	
	Goodding's tansyaster	MAPIG2	*Machaeranthera pinnatifida ssp. gooddingii var. gooddingii*	9–28	–
	woolly paperflower	PSTA	*Psilostrophe tagetina*	9–28	–
15	**Forb**			9–28	
	redstem stork's bill	ERCI6	*Erodium cicutarium*	9–28	–
	Texas stork's bill	ERTE13	*Erodium texanum*	9–28	–
16	**Forb**			9–28	
	Forb (herbaceous, not grass nor grass-like)	2FORB	*Forb (herbaceous, not grass nor grass-like)*	9–28	–

Animal community

This site provides habitats which support a resident animal community that is characterized by pronghorn antelope, black-tailed jackrabbit, black tailed prairie dog, yellow-faced pocket gopher, banner-tailed kangaroo rat, hispid cotton rat, swift fox, burrowing owl, horned lark, mockingbird, meadowlark, mourning dove, scaled quail, Great Plains toad, plains spadefoot toad, prairie rattlesnake and western coachwhip shake.

Hydrological functions

The runoff curve numbers are determined by field investigations using hydraulic cover conditions and hydrologic soil groups.

Hydrologic Interpretations
Soil Series Hydrologic Group
Atoka C
Bigetty B
Ratliff B
Reyab B
Holloman B
Largo B
Holloman B
Bigetty B
Berino B
Reagan B
Reakor B
Reeves B
Russler C

Recreational uses

This site offers limited potential for hiking, horseback riding, nature observation and photography. Game bird, antelope and predator hunting are also limited.

Wood products

This site has no potential for wood products

Other products

This site is suitable for grazing by all kinds and classes of livestock, during all seasons of the year. Under retrogression, such plants as black grama, blue grama, sideoats grama, bush muhly, plains bristlegrass, Arizona cottontop, fourwing saltbush and winterfat decrease and there is an increase in burrograss, threeawns, sand dropseed, muhlys, broom snakeweed and javilinabush. Under continued retrogression, burrograss can completely

dominate the site. Creosotebush, mesquite, and tarbush can also dominate. Grazing management alone will not improve the site in the above situation. This site is well suited to a system of management that rotates the season of use.

Other information

Guide to Suggested Initial Stocking Rate Acres per Animal Unit Month

Similarity Index Ac/AUM
100 - 76 3.0 – 4.2
75 – 51 4.1 – 5.5
50 – 26 5.3 – 7.0
25 – 0 7.1 +

Inventory data references

Other References:
Data collection for this site was done in conjunction with the progressive soil surveys within the Southern Desertic Basins, Plains and Mountains, Major Land Resource Areas of New Mexico. This site has been mapped and correlated with soils in the following soil surveys. Eddy County Lea County and Chavez County.

Other references

Literature References:

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2. Bunting, S.C., H.A. Wright, and L.F. Neuenschwander. 1980. Long-term effects of fire on cactus in the Southern Mixed Prairie of Texas. J. Range. Manage. 33: 85-88.

3. Laycock, W.A. 1982. Hail as an ecological factor in the increase of prickly
pear cactus. p. 359-361. In: J.A. Smith and V.W. Hays (eds.) Proc. XIV Int. Grassland Congr. Westview Press, Boulder, Colo.

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Contributors

David Trujillo
Don Sylvester

Rangeland health reference sheet

Interpreting Indicators of Rangeland Health is a qualitative assessment protocol used to determine ecosystem condition based on benchmark characteristics described in the Reference Sheet. A suite of 17 (or more) indicators are typically considered in an assessment. The ecological site(s) representative of an assessment location must be known prior to applying the protocol and must be verified based on soils and climate. Current plant community cannot be used to identify the ecological site.

Author(s)/participant(s)	
Contact for lead author	
Date	
Approved by	
Approval date	
Composition (Indicators 10 and 12) based on	Annual Production

Indicators

1. **Number and extent of rills:**

2. **Presence of water flow patterns:**

3. **Number and height of erosional pedestals or terracettes:**

4. **Bare ground from Ecological Site Description or other studies (rock, litter, lichen, moss, plant canopy are not bare ground):**

5. **Number of gullies and erosion associated with gullies:**

6. **Extent of wind scoured, blowouts and/or depositional areas:**

7. **Amount of litter movement (describe size and distance expected to travel):**

8. **Soil surface (top few mm) resistance to erosion (stability values are averages - most sites will show a range of values):**

9. **Soil surface structure and SOM content (include type of structure and A-horizon color and thickness):**

10. **Effect of community phase composition (relative proportion of different functional groups) and spatial distribution on infiltration and runoff:**

11. **Presence and thickness of compaction layer (usually none; describe soil profile features which may be mistaken for compaction on this site):**

12. **Functional/Structural Groups (list in order of descending dominance by above-ground annual-production or live foliar cover using symbols: >>, >, = to indicate much greater than, greater than, and equal to):**

    Dominant:

    Sub-dominant:

    Other:

    Additional:

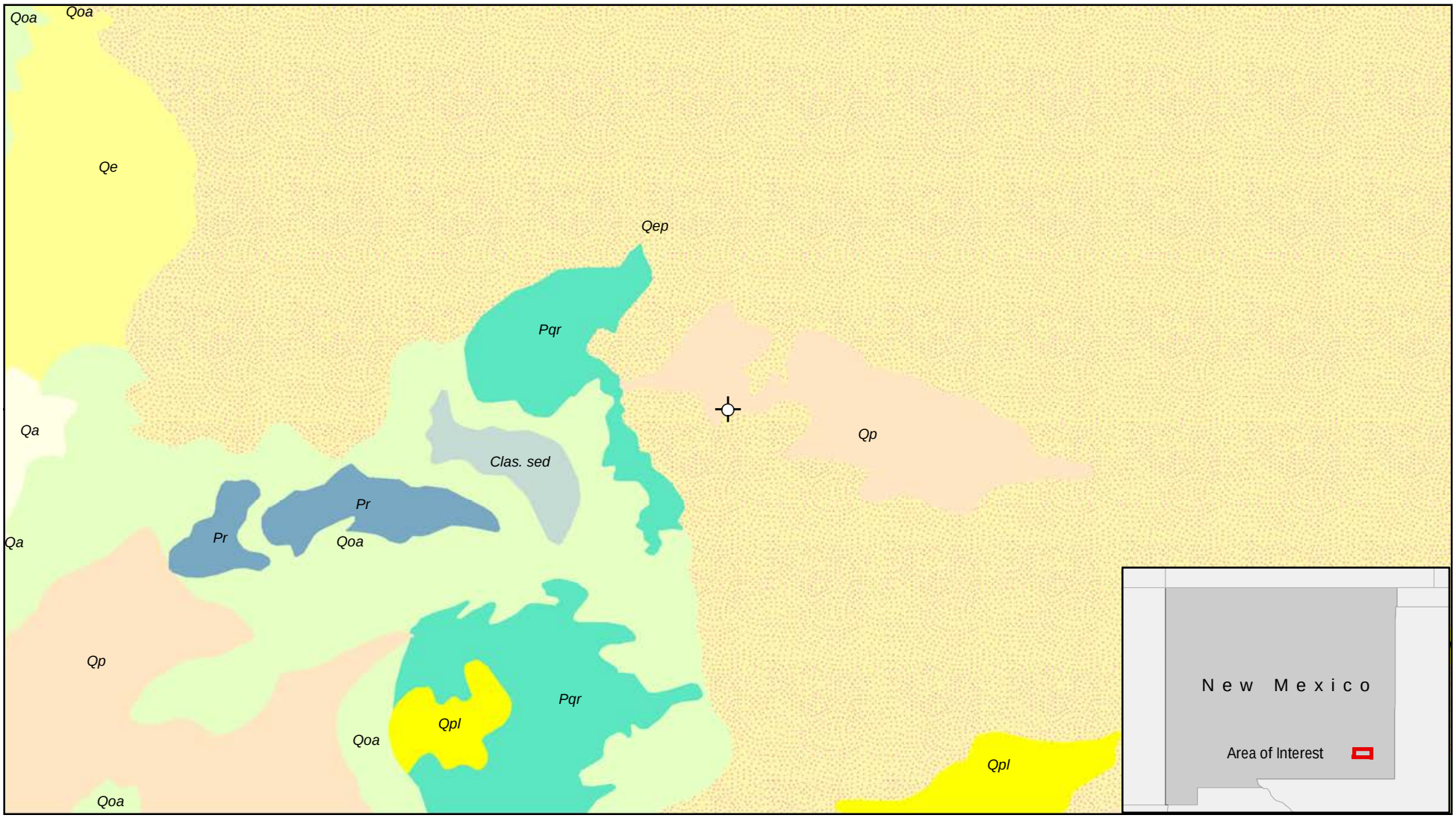
13. **Amount of plant mortality and decadence (include which functional groups are expected to show mortality or decadence):**

14. **Average percent litter cover (%) and depth (in):**

15. **Expected annual annual-production (this is TOTAL above-ground annual-production, not just forage annual-production):**

16. **Potential invasive (including noxious) species (native and non-native). List species which BOTH characterize degraded states and have the potential to become a dominant or co-dominant species on the ecological site if their future establishment and growth is not actively controlled by management interventions. Species that become dominant for only one to several years (e.g., short-term response to drought or wildfire) are not invasive plants. Note that unlike other indicators, we are describing what is NOT expected in the reference state for the ecological site:**

17. **Perennial plant reproductive capability:**



Site Location

Lithologic Units

Clas. sed | Pqr | Pr | Qa | Qe | Qep | Qoa | Qp | Qpl

VERTEX

0 1.5 3 Miles

Map Center:
Lat/Long: 32.676591, -103.901310

NAD 1983 UTM Zone 13N

Date: Jun 30/22

N

New Mexico Geology
Strawberry 7 Fed Com #8H

FIGURE:
G

devon

Geospatial data presented in this figure may be derived from external sources and Vertex does not assume any liability for inaccuracies. This figure is intended for reference use only and is not certified for legal, survey, or engineering purposes.

Note: Geology data sourced from New Mexico Bureau of Geology & Mineral Resources, Bureau of Land Management.

VERSATILITY. EXPERTISE.

Document Path: G:\1-Projects_US PROJECTS\Devon Energy Corporation\2022\22E-02063 - Strawberry 7 Fed Com #8H\Figure G Geology Strawberry 7 Fed Com #8H.mxd

APPENDIX C – Daily Field and Sampling Reports

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	6/12/2022
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	6/12/2022 6:02 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	6/12/2022 9:49 AM
Departed Site	6/12/2022 10:58 AM

Field Notes

9:52 Completed safety paperwork at previous site. On site to mark release area for One Call.

10:44 Release source was polished rod at wellhead. Extensive staining north and northwest of release point is slightly upslope and was likely moved by prevailing winds. Majority of fluid pooled at wellhead and east of wellhead.

10:50 Used staining as guide to mark edge of release with white flags and paint. Release area covers entire fenced wellhead area and northwest, north, and east of wellhead.

10:47 Marked release area polygon in Arc Collector.

10:55 Release occurred around the northernmost well of the two on pad.

Next Steps & Recommendations

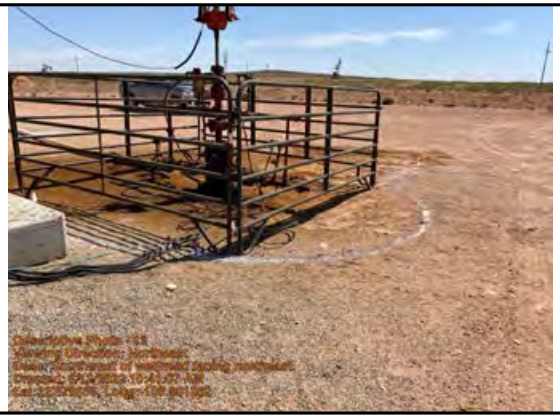
1 Submit ticket for One Call.

Daily Site Visit Report

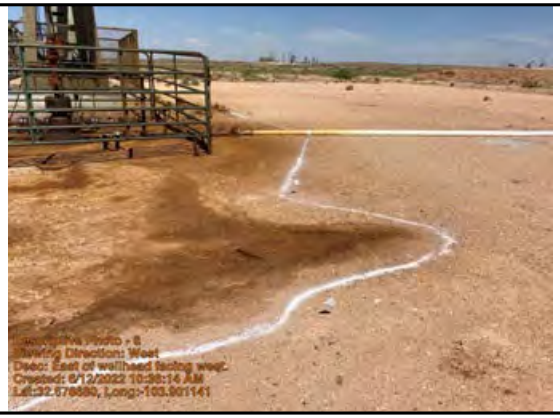
Site Photos

Viewing Direction: Southeast	**Viewing Direction**: North
	
Northwest of wellhead facing southeast.	South of wellhead facing north.
Viewing Direction: Northwest	**Viewing Direction**: East
	
South of wellhead facing northwest.	Southwest of wellhead facing east.

Daily Site Visit Report

Viewing Direction: Northeast	**Viewing Direction**: East
	
Southwest of wellhead facing northeast.	Northwest of well head facing east.
Viewing Direction: Southwest	**Viewing Direction**: South
	
North of wellhead facing southwest.	North of wellhead facing south.

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: Northwest
	
North of wellhead facing southeast.	East of wellhead facing northwest.
Viewing Direction: West	**Viewing Direction**: Southwest
	
East of wellhead facing west.	East of wellhead facing southwest.

Daily Site Visit Report

Viewing Direction: Northeast

South of wellhead facing northeast.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Lakin Pullman

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	6/22/2022 2:58 PM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	
Departed Site	6/21/2022 3:30 PM

Field Notes

8:53 Arrived on location and did walkthrough of site

8:54 Began digging boreholes and field screening samples.

8:54 Dug 10 boreholes for horizontal delineation at 0,2, and 4 feet depth

8:55 Jarred samples to be sent to lab

Next Steps & Recommendations

1 Continue with delineation sampling

Daily Site Visit Report

Site Photos

Viewing Direction: North

Staining around wellhead from spill

Viewing Direction: West

Staining on ground around wellhead

Viewing Direction: South

Ground stained around wellhead

Viewing Direction: Southeast

Area of spill

Daily Site Visit Report

Viewing Direction: Northeast

Staining and area of spill

Daily Site Visit Report

Daily Site Visit Signature

Inspector: McKitric Wier

Signature: 
Signature

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	6/22/2022
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	6/24/2022 1:03 AM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	6/22/2022 8:30 AM
Departed Site	6/22/2022 3:30 PM

Field Notes

18:44 Arrived on site and begin digging boreholes with hand auger

18:46 Lowered borehole #5 to 4 feet and collected samples for lab anazlysis

18:47 Began creating new boreholes starting with borehole 11

18:49 Borehole samples returned clean at surface and 2’ until borehole 17 & 18. Samples on boreholes 17 & 18 came back clean at 2 feet

Next Steps & Recommendations

1 Continue with sampling for delineation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: McKitric Wier

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	6/23/2022
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	6/24/2022 1:03 AM
Client Contact Name:	Wes Matthews	API #:	
Client Contact Phone #:	(575) 748-0176		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	6/23/2022 9:00 AM
Departed Site	6/23/2022 3:20 PM

Field Notes

18:55 Begin stepping out hot surface borehole samples from 6/22

18:57 Collect borehole samples 19-22 for horizontal delineation. Samples 19 and 20 returned hot

18:57 Commence boreholes within ground stained area for vertical delineation.

18:59 Borehole 23 returned clean at 4', borehole 24 returned hot with field screens at 6'. Samples were only collected to 6' due to being limited at depth by equipment on hand. Sent samples for BH22-24 to lab for more accurate data

19:00 Stepped out boreholes 20 and 19 beginning with borehole 25. Borehole 25 came back hot at the surface but clean at 2'.

19:01 Stepped out borehole 25 to borehole 26, samples at borehole 26 came back clean at surface and 2' depth.

Next Steps & Recommendations

1 Send samples to lab to confirm clean status of delineation.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: McKitric Wier

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	8/18/2023 9:19 PM
Client Contact Name:	Dale Woodall	API #:	
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	
Departed Site	

Field Notes

10:22 Got pulled off of the nearby hackberry job to go do oversight at strawberry. Got to the strawberry about 9:30.

10:22 Excavation crew has been at work hand digging around the well head.

12:05 Grabbed composite base sample at 6 inches. Sample tested high for hydrocarbons.

12:05 Per conversation with Kent, extended excavation area to the north.

15:02 Gathered sample 2 at 6 in, which was also high for hydrocarbons

15:03 Instructed crew to come back Monday to dig to 1' for further testing.

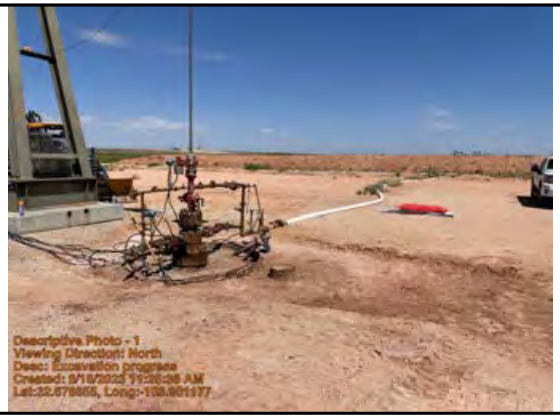
Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: North



Excavation progress

Viewing Direction: West

Proposed extension of excavation

Viewing Direction: Northwest

View of excavation at end of day.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Zachery Englebert

Signature:

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	8/21/2023
Site Location Name:	Strawberry 7 Fed Com 9H	Report Run Date:	8/21/2023 8:44 PM
Client Contact Name:	Dale Woodall	API #:	30-015-41574
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	8/21/2023 7:45 AM
Departed Site	

Field Notes

8:12 On site for excavation oversight and field screening.

8:13 Excavation crew is on site but we are waiting for the Devon representative Bryce to visit site so he can approve further digging.

11:51 Chatted with Kent who approved further digging down to 6 inches in an expanded area in order to delineate further.

11:51 Crew dug down to 6 inches in expanded area.

11:52 Grabbed base samples 03 and 04 and wall samples 05 and 06. All tested clean for chlorides and hydrocarbons using the criteria for groundwater at 51’ to 100’

11:53 Chatted with Kent who confirmed that delineation is complete. Someone with vertex will return for final confirmation sampling.

Next Steps & Recommendations

1

Daily Site Visit Report

Site Photos

Viewing Direction: North

Location of samples BS23-03 and 04, and WS23-05

Viewing Direction: North

Location of sample WS23-06

Viewing Direction: Northwest

Excavation

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Zachery Englebert

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	9/7/2023
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	9/7/2023 11:07 PM
Client Contact Name:	Dale Woodall	API #:	
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	9/7/2023 10:35 AM
Departed Site	9/7/2023 4:00 PM

Field Notes

15:51 Arrived on site, filling out and signing safety documents. Examined site and location to determine excavation boundaries and establish wall and base samples and review GIS data for excavation.
Collected 5 point composite wall and base samples.

15:52 Field screened all samples for chlorides with EC meter and TPH with Dexsil Petroflag.
Documented sample locations and prepared samples for lab then stored on ice.

Next Steps & Recommendations

1. Receive lab data results
2. Compose closure report

Daily Site Visit Report

Site Photos

Viewing Direction: North

WES23-03 0-1 ft 2/5 points of composite sample

Viewing Direction: North

Site information placard

Viewing Direction: South

WES23-03 0-1 ft 3/5 points of composite sample

Viewing Direction: Southwest

WES23-01 0-1 ft 5 points of composite sample

Daily Site Visit Report

Viewing Direction: Southwest	**Viewing Direction**: Northwest
	
WES23-02 0-1 ft 5 points of composite sample	BES23-01 0.5 ft 5 points of composite sample
Viewing Direction: Northwest	**Viewing Direction**: West
	
BES23-02 0.5 ft 5 points of composite sample	BES23-03 1 ft 5 points of composite sample

Daily Site Visit Report

Viewing Direction: Northwest	**Viewing Direction**: South
	
BES23-04 0.5 ft 3/5 points of composite sample	BES23-04 1 ft 2/5 points of composite sample

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature: 

Daily Site Visit Report

Client:	Devon Energy Corporation	Inspection Date:	5/15/2024
Site Location Name:	Strawberry 7 Fed Com 8H	Report Run Date:	5/15/2024 9:37 PM
Client Contact Name:	Dale Woodall	API #:	
Client Contact Phone #:	405-318-4697		
Unique Project ID		Project Owner:	
Project Reference #		Project Manager:	

Summary of Times

Arrived at Site	5/15/2024 12:40 PM
Departed Site	5/15/2024 2:45 PM

Field Notes

14:16 Arrived on site, examined site for hazards and completed safety assessment for job and documents.

14:38 Collected a 5-point composite sample (Backfill24-01) from surface, 0 ft to 0.5 ft depth into the backfill pile on the north side of the pad. Backfill pile was left remaining on site from remediation excavation for incident NAPP2215725364. Pile can be observed in previous field reports, included in documented closure report.

14:40 Field screened sample for TPH with Dexsil Petroflag and chlorides with EC meter. Screening results convey clean backfill to strictest criteria.
Prepared sample for lab and preserved on ice.

Next Steps & Recommendations

1 Lab results

Daily Site Visit Report

Site Photos

Viewing Direction: North	**Viewing Direction**: Northwest
	
Site information placard	Backfill24-01 5-point composite sample approximately 0ft - .5ft depth
Viewing Direction: South	**Viewing Direction**: South
	
Backfill24-01 5-point composite sample approximately 0ft - .5ft, showing backside of remaining backfill pile on site	Backfill pile remaining on site from remediation excavation for incident NAPP2215725364

Daily Site Visit Report

Viewing Direction: Southeast	**Viewing Direction**: Northwest
	
Backfill24-01 5-point composite sample approximately 0ft - .5ft, showing sample depth of 1/5 discrete sample of composite	Backfill pile remaining on site from remediation excavation for incident NAPP2215725364 from excavation perspective as observed in previous field reports.

Daily Site Visit Report

Daily Site Visit Signature

Inspector: Stephanie McCartyM

Signature:

APPENDIX D – Notifications

Gmail

Dhugal Hanton <vertexresourcegroupusa@gmail.com>

48 Hour Confirmation Notice STRAWBERRY 7 FEDERAL COM #008H

4 messages

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Thu, Aug 24, 2023 at 9:39 AM
To: "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>, shelly.wells@emnrd.nm.gov, mmoffitt@vertex.ca, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>

All,

Please accept this email as notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release.

Strawberry 7 Fed Com 8H, 30-015-41507,

On Monday, August 28, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct confirmation sampling. If you have any questions regarding this notification, please call me at 575-988-1472.

Thank you,

Kent Stallings P.G.
Senior Geologist

Vertex Resource Services Inc.
3101 Boyd Drive,
Carlsbad, NM 88220

P 575.725.5001 ext 706
C 346.814.1413
F

Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov> Thu, Aug 24, 2023 at 9:55 AM
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>, "mmoffitt@vertex.ca" <mmoffitt@vertex.ca>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>

Good morning Kent,

The OCD has received your notification. Notification requirements are **two full business days**, per rule. You may proceed on your schedule. This, and all correspondence, should be included in the closure report to ensure inclusion in the project file.

Thank you,

Shelly

Shelly Wells * Environmental Specialist-Advanced

Environmental Bureau

EMNRD-Oil Conservation Division

1220 S. St. Francis Drive|Santa Fe, NM 87505

(505)469-7520|Shelly.Wells@emnrd.nm.gov

http://www.emnrd.state.nm.us/OCD/

From: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Sent: Thursday, August 24, 2023 9:40 AM
To: Hamlet, Robert, EMNRD <Robert.Hamlet@emnrd.nm.gov>; Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov>; mmoffitt@vertex.ca; Bratcher, Michael, EMNRD <mike.bratcher@emnrd.nm.gov>
Subject: [EXTERNAL] 48 Hour Confirmation Notice STRAWBERRY 7 FEDERAL COM #008H

CAUTION: This email originated outside of our organization. Exercise caution prior to clicking on links or opening attachments.

[Quoted text hidden]

Dhugal Hanton <vertexresourcegroupusa@gmail.com> Fri, Sep 1, 2023 at 10:45 AM
To: "Wells, Shelly, EMNRD" <Shelly.Wells@emnrd.nm.gov>, "Enviro, OCD, EMNRD" <OCD.Enviro@emnrd.nm.gov>
Cc: "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>, "mmoffitt@vertex.ca" <mmoffitt@vertex.ca>, "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, KStallings@vertex.ca, smccarty@vertex.ca

Please accept this email as notification that Vertex Resource Services has scheduled a sampling event to be conducted at the following release.

Strawberry 7 Fed Com 8H, nAPP2215725364, 30-015-41507

On Thursday, September 7, 2023, at approximately 8:00 a.m., Vertex will be on-site to conduct a final confirmation sampling. If you have any questions regarding this notification, please call at 575-988-1472.

V/R,

Steph McCarty
Environmental Technician
Vertex Resource Services Inc.
3101 Boyd Drive,
Carlsbad, NM 88220

C 575.263.3295

www.vertex.ca
Connect with LinkedIn

[Quoted text hidden]

Wells, Shelly, EMNRD <Shelly.Wells@emnrd.nm.gov> Fri, Sep 1, 2023 at 11:00 AM
To: Dhugal Hanton <vertexresourcegroupusa@gmail.com>
Cc: "Bratcher, Michael, EMNRD" <mike.bratcher@emnrd.nm.gov>, "Hamlet, Robert, EMNRD" <Robert.Hamlet@emnrd.nm.gov>

Hi Steph,

The OCD has received your notification. Include a copy of this and all notifications in the remedial and/or closure reports to ensure the notifications are documented in the project file.

[Quoted text hidden]

APPENDIX E – Laboratory Data Reports and Chain of Custody Forms

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

July 13, 2022

Monica Peppin

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Strawberry 7 Fed Com 8H OrderNo.: 2206D47

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 17 sample(s) on 6/24/2022 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 **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-001 **Matrix:** SOIL

Client Sample ID: BH22-05 4'
Collection Date: 6/22/2022 9:30:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	6/29/2022 12:52:18 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/29/2022 12:52:18 AM
Surr: DNOP	118	51.1-141		%Rec	1	6/29/2022 12:52:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2022 9:58:00 PM
Surr: BFB	88.8	37.7-212		%Rec	1	6/27/2022 9:58:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 9:58:00 PM
Toluene	ND	0.050		mg/Kg	1	6/27/2022 9:58:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2022 9:58:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/27/2022 9:58:00 PM
Surr: 4-Bromofluorobenzene	82.4	70-130		%Rec	1	6/27/2022 9:58:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	670	61		mg/Kg	20	6/28/2022 6:16:05 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-002 **Matrix:** SOIL

Client Sample ID: BH22-11 0'
Collection Date: 6/22/2022 9:35:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	7/6/2022 9:31:59 PM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	7/6/2022 9:31:59 PM
Surr: DNOP	67.9	51.1-141		%Rec	1	7/6/2022 9:31:59 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2022 10:57:00 PM
Surr: BFB	85.8	37.7-212		%Rec	1	6/27/2022 10:57:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 10:57:00 PM
Toluene	ND	0.049		mg/Kg	1	6/27/2022 10:57:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2022 10:57:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2022 10:57:00 PM
Surr: 4-Bromofluorobenzene	83.9	70-130		%Rec	1	6/27/2022 10:57:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	390	60		mg/Kg	20	6/28/2022 6:53:18 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-003 **Matrix:** SOIL

Client Sample ID: BH22-11 2'
Collection Date: 6/22/2022 9:40:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/29/2022 1:14:39 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/29/2022 1:14:39 AM
Surr: DNOP	107	51.1-141		%Rec	1	6/29/2022 1:14:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2022 11:17:00 PM
Surr: BFB	87.4	37.7-212		%Rec	1	6/27/2022 11:17:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 11:17:00 PM
Toluene	ND	0.050		mg/Kg	1	6/27/2022 11:17:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2022 11:17:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2022 11:17:00 PM
Surr: 4-Bromofluorobenzene	85.9	70-130		%Rec	1	6/27/2022 11:17:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	220	60		mg/Kg	20	6/28/2022 7:55:19 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-12 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/22/2022 9:45:00 AM
Lab ID: 2206D47-004 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	14	13		mg/Kg	1	6/29/2022 1:25:50 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/29/2022 1:25:50 AM
Surr: DNOP	84.0	51.1-141		%Rec	1	6/29/2022 1:25:50 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2022 11:37:00 PM
Surr: BFB	86.5	37.7-212		%Rec	1	6/27/2022 11:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 11:37:00 PM
Toluene	ND	0.050		mg/Kg	1	6/27/2022 11:37:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2022 11:37:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/27/2022 11:37:00 PM
Surr: 4-Bromofluorobenzene	85.3	70-130		%Rec	1	6/27/2022 11:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	500	60		mg/Kg	20	6/28/2022 8:07:44 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-12 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/22/2022 9:50:00 AM
Lab ID: 2206D47-005 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	6/29/2022 1:37:03 AM
Motor Oil Range Organics (MRO)	ND	42		mg/Kg	1	6/29/2022 1:37:03 AM
Surr: DNOP	55.5	51.1-141		%Rec	1	6/29/2022 1:37:03 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2022 11:56:00 PM
Surr: BFB	86.6	37.7-212		%Rec	1	6/27/2022 11:56:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 11:56:00 PM
Toluene	ND	0.049		mg/Kg	1	6/27/2022 11:56:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2022 11:56:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2022 11:56:00 PM
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	6/27/2022 11:56:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	250	60		mg/Kg	20	6/28/2022 8:20:09 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-13 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/22/2022 9:55:00 AM
Lab ID: 2206D47-006 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 1:48:14 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2022 1:48:14 AM
Surr: DNOP	84.0	51.1-141		%Rec	1	6/29/2022 1:48:14 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 12:16:00 AM
Surr: BFB	89.0	37.7-212		%Rec	1	6/28/2022 12:16:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 12:16:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 12:16:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 12:16:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 12:16:00 AM
Surr: 4-Bromofluorobenzene	83.4	70-130		%Rec	1	6/28/2022 12:16:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	63	60		mg/Kg	20	6/28/2022 8:32:33 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-007 **Matrix:** SOIL

Client Sample ID: BH22-13 2'
Collection Date: 6/22/2022 10:00:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 1:59:22 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2022 1:59:22 AM
Surr: DNOP	81.8	51.1-141		%Rec	1	6/29/2022 1:59:22 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 12:55:00 AM
Surr: BFB	86.7	37.7-212		%Rec	1	6/28/2022 12:55:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 12:55:00 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 12:55:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 12:55:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 12:55:00 AM
Surr: 4-Bromofluorobenzene	85.3	70-130		%Rec	1	6/28/2022 12:55:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	70	60		mg/Kg	20	6/28/2022 8:44:57 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-14 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/22/2022 10:05:00 AM
Lab ID: 2206D47-008 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 2:10:29 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2022 2:10:29 AM
Surr: DNOP	76.1	51.1-141		%Rec	1	6/29/2022 2:10:29 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 1:15:00 AM
Surr: BFB	88.8	37.7-212		%Rec	1	6/28/2022 1:15:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 1:15:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 1:15:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 1:15:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2022 1:15:00 AM
Surr: 4-Bromofluorobenzene	83.2	70-130		%Rec	1	6/28/2022 1:15:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	ND	60		mg/Kg	20	6/28/2022 8:57:21 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-009 **Matrix:** SOIL

Client Sample ID: BH22-14 2'
Collection Date: 6/22/2022 10:10:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/29/2022 2:21:34 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2022 2:21:34 AM
Surr: DNOP	108	51.1-141		%Rec	1	6/29/2022 2:21:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 1:35:00 AM
Surr: BFB	86.0	37.7-212		%Rec	1	6/28/2022 1:35:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 1:35:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 1:35:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 1:35:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 1:35:00 AM
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	6/28/2022 1:35:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	67	60		mg/Kg	20	6/28/2022 9:09:46 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-010 **Matrix:** SOIL

Client Sample ID: BH22-15 0'
Collection Date: 6/22/2022 10:15:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	7/1/2022 2:23:18 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	7/1/2022 2:23:18 PM
Surr: DNOP	81.0	51.1-141		%Rec	1	7/1/2022 2:23:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 1:54:00 AM
Surr: BFB	87.8	37.7-212		%Rec	1	6/28/2022 1:54:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 1:54:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 1:54:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 1:54:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2022 1:54:00 AM
Surr: 4-Bromofluorobenzene	83.3	70-130		%Rec	1	6/28/2022 1:54:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	630	60		mg/Kg	20	6/28/2022 9:22:10 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-011 **Matrix:** SOIL

Client Sample ID: BH22-15 2'
Collection Date: 6/22/2022 10:20:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/29/2022 2:43:39 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2022 2:43:39 AM
Surr: DNOP	117	51.1-141		%Rec	1	6/29/2022 2:43:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 2:14:00 AM
Surr: BFB	85.3	37.7-212		%Rec	1	6/28/2022 2:14:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 2:14:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 2:14:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 2:14:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2022 2:14:00 AM
Surr: 4-Bromofluorobenzene	82.1	70-130		%Rec	1	6/28/2022 2:14:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	140	60		mg/Kg	20	6/28/2022 9:34:35 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-012 **Matrix:** SOIL

Client Sample ID: BH22-16 0'
Collection Date: 6/22/2022 10:25:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 2:54:34 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2022 2:54:34 AM
Surr: DNOP	81.6	51.1-141		%Rec	1	6/29/2022 2:54:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 2:34:00 AM
Surr: BFB	88.1	37.7-212		%Rec	1	6/28/2022 2:34:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 2:34:00 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 2:34:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 2:34:00 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 2:34:00 AM
Surr: 4-Bromofluorobenzene	84.4	70-130		%Rec	1	6/28/2022 2:34:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	570	59		mg/Kg	20	6/28/2022 9:46:59 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-013 **Matrix:** SOIL

Client Sample ID: BH22-16 2'
Collection Date: 6/22/2022 10:30:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 3:05:14 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2022 3:05:14 AM
Surr: DNOP	87.2	51.1-141		%Rec	1	6/29/2022 3:05:14 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 2:53:00 AM
Surr: BFB	89.9	37.7-212		%Rec	1	6/28/2022 2:53:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 2:53:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 2:53:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 2:53:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 2:53:00 AM
Surr: 4-Bromofluorobenzene	85.4	70-130		%Rec	1	6/28/2022 2:53:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	260	60		mg/Kg	20	6/28/2022 10:24:12 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-014 **Matrix:** SOIL

Client Sample ID: BH22-17 0'
Collection Date: 6/22/2022 10:35:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/29/2022 3:16:08 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2022 3:16:08 AM
Surr: DNOP	79.4	51.1-141		%Rec	1	6/29/2022 3:16:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 3:13:00 AM
Surr: BFB	88.2	37.7-212		%Rec	1	6/28/2022 3:13:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 3:13:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 3:13:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 3:13:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 3:13:00 AM
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	6/28/2022 3:13:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	2100	60		mg/Kg	20	6/28/2022 10:36:37 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-015 **Matrix:** SOIL

Client Sample ID: BH22-17 2'
Collection Date: 6/22/2022 10:40:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 3:26:59 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/29/2022 3:26:59 AM
Surr: DNOP	108	51.1-141		%Rec	1	6/29/2022 3:26:59 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 3:33:00 AM
Surr: BFB	85.1	37.7-212		%Rec	1	6/28/2022 3:33:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 3:33:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 3:33:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 3:33:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 3:33:00 AM
Surr: 4-Bromofluorobenzene	84.1	70-130		%Rec	1	6/28/2022 3:33:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	170	60		mg/Kg	20	6/28/2022 10:49:01 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-18 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/22/2022 10:45:00 AM
Lab ID: 2206D47-016 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	6/29/2022 3:37:48 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/29/2022 3:37:48 AM
Surr: DNOP	78.7	51.1-141		%Rec	1	6/29/2022 3:37:48 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 3:53:00 AM
Surr: BFB	89.2	37.7-212		%Rec	1	6/28/2022 3:53:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 3:53:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 3:53:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 3:53:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 3:53:00 AM
Surr: 4-Bromofluorobenzene	83.9	70-130		%Rec	1	6/28/2022 3:53:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	600	60		mg/Kg	20	6/28/2022 11:01:26 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
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 interference		

Analytical Report
Lab Order **2206D47**
Date Reported: **7/13/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D47-017 **Matrix:** SOIL

Client Sample ID: BH22-18 2'
Collection Date: 6/22/2022 10:50:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 11:07:04 PM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2022 11:07:04 PM
Surr: DNOP	94.3	51.1-141		%Rec	1	6/29/2022 11:07:04 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/27/2022 9:21:02 PM
Surr: BFB	95.5	37.7-212		%Rec	1	6/27/2022 9:21:02 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 9:21:02 PM
Toluene	ND	0.049		mg/Kg	1	6/27/2022 9:21:02 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/27/2022 9:21:02 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/27/2022 9:21:02 PM
Surr: 4-Bromofluorobenzene	91.2	70-130		%Rec	1	6/27/2022 9:21:02 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	110	60		mg/Kg	20	6/28/2022 11:13:50 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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **MB-68427**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS**	Batch ID: **68427**	RunNo: **89102**
Prep Date: **6/28/2022**	Analysis Date: **6/28/2022**	SeqNo: **3166185** Units: **mg/Kg**

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

Sample ID: **LCS-68427**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS**	Batch ID: **68427**	RunNo: **89102**
Prep Date: **6/28/2022**	Analysis Date: **6/28/2022**	SeqNo: **3166186** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **LCS-68385**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **68385**	RunNo: **89082**
Prep Date: **6/27/2022**	Analysis Date: **6/28/2022**	SeqNo: **3164805** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	57	15	50.00	0	113	64.4	127			
Surr: DNOP	5.6		5.000		111	51.1	141			

Sample ID: **MB-68385**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **68385**	RunNo: **89082**
Prep Date: **6/27/2022**	Analysis Date: **6/28/2022**	SeqNo: **3164808** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.6		10.00		86.0	51.1	141			

Sample ID: **LCS-68409**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **68409**	RunNo: **89082**
Prep Date: **6/28/2022**	Analysis Date: **6/28/2022**	SeqNo: **3166134** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.2		5.000		84.6	51.1	141			

Sample ID: **MB-68409**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **68409**	RunNo: **89082**
Prep Date: **6/28/2022**	Analysis Date: **6/28/2022**	SeqNo: **3166138** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	7.7		10.00		76.9	51.1	141			

Sample ID: **MB-68383**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **68383**	RunNo: **89119**
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168413** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.2	51.1	141			

Sample ID: **LCS-68383**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **68383**	RunNo: **89119**
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168414** 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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **LCS-68383**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **68383**	RunNo: **89119**
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	15	50.00	0	80.8	64.4	127			
Surr: DNOP	4.9		5.000		98.4	51.1	141			

Sample ID: **2206D47-017AMS**	SampType: **MS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH22-18 2'**	Batch ID: **68383**	RunNo: **89119**
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168416** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	14	47.57	0	86.6	36.1	154			
Surr: DNOP	4.9		4.757		103	51.1	141			

Sample ID: **2206D47-017AMSD**	SampType: **MSD**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **BH22-18 2'**	Batch ID: **68383**	RunNo: **89119**
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168417** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	37	14	48.03	0	76.7	36.1	154	11.1	33.9	
Surr: DNOP	4.7		4.803		97.9	51.1	141	0	0	

Sample ID: **MB-68549**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **68549**	RunNo: **89260**
Prep Date: **7/5/2022**	Analysis Date: **7/7/2022**	SeqNo: **3175180** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	8.7		10.00		86.6	51.1	141			

Sample ID: **LCS-68549**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **68549**	RunNo: **89260**
Prep Date: **7/5/2022**	Analysis Date: **7/7/2022**	SeqNo: **3175181** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	49	15	50.00	0	97.3	64.4	127			
Surr: DNOP	4.1		5.000		82.2	51.1	141			

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **mb-68369**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **68369**	RunNo: **89055**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163048** 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	960		1000		95.5	37.7	212			

Sample ID: **lcs-68369**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **68369**	RunNo: **89055**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163049** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	72.3	137			
Surr: BFB	2100		1000		207	37.7	212			

Sample ID: **2206d47-017ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH22-18 2'**	Batch ID: **68369**	RunNo: **89055**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163051** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	21	4.9	24.32	0	85.8	70	130			
Surr: BFB	1900		972.8		192	37.7	212			

Sample ID: **2206d47-017amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH22-18 2'**	Batch ID: **68369**	RunNo: **89055**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163052** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	32	5.0	24.83	0	130	70	130	42.6	20	R
Surr: BFB	2300		993.0		236	37.7	212	0	0	S

Sample ID: **lcs-68368**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163149** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	106	72.3	137			
Surr: BFB	2000		1000		196	37.7	212			

Sample ID: **mb-68368**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163150** 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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **mb-68368**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163150** 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	860		1000		86.3	37.7	212			

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **mb-68369**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **68369**	RunNo: **89055**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163096** 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	0.92		1.000		91.5	70	130			

Sample ID: **LCS-68369**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **68369**	RunNo: **89055**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163097** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.3	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.5	70	130			

Sample ID: **lcs-68368**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163198** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.6	80	120			
Toluene	0.94	0.050	1.000	0	93.7	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.5	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.1	80	120			
Surr: 4-Bromofluorobenzene	0.84		1.000		83.9	70	130			

Sample ID: **mb-68368**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163199** 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	0.83		1.000		83.0	70	130			

Qualifiers:

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

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D47**

13-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **2206d47-001ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH22-05 4'**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163201** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.82	0.025	0.9980	0	82.0	68.8	120			
Toluene	0.82	0.050	0.9980	0	82.5	73.6	124			
Ethylbenzene	0.81	0.050	0.9980	0	80.8	72.7	129			
Xylenes, Total	2.4	0.10	2.994	0	79.4	75.7	126			
Surr: 4-Bromofluorobenzene	0.84		0.9980		84.7	70	130			

Sample ID: **2206d47-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH22-05 4'**	Batch ID: **68368**	RunNo: **89056**
Prep Date: **6/26/2022**	Analysis Date: **6/27/2022**	SeqNo: **3163202** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.025	0.9970	0	96.9	68.8	120	16.5	20	
Toluene	0.99	0.050	0.9970	0	99.1	73.6	124	18.1	20	
Ethylbenzene	0.98	0.050	0.9970	0	98.5	72.7	129	19.6	20	
Xylenes, Total	2.9	0.10	2.991	0	97.3	75.7	126	20.1	20	R
Surr: 4-Bromofluorobenzene	0.84		0.9970		84.2	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
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: 2206D47 | RcptNo: 1

Received By: Kasandra Payan 6/24/2022 8:16:00 AM

Completed By: Sean Livingston 6/24/2022 8:54:37 AM

Reviewed By: DAD 6/24/22

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. 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: CMC 6/24/22

Special Handling (if applicable)

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

Person Notified: _____ Date: _____

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

Regarding: _____

Client Instructions: _____

16. Additional remarks:

17. **Cooler Information**

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good				
2	0.8	Good				

Chain-of-Custody Record

Client: Devon

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 - Day
☑ Standard ☒ Rush

Project Name: Strawberry 7 Fed Com #8H

Project #: 22E-002063

Project Manager: Monica Peppin

Sampler: M. Barnes

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp(including CF): 2.2-0.2 = 2.0 (°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.	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)
6/22	9:30	Soil	BH22-05 4'	4 oz	Ice	2206047-001	✓	✓					✓			
	9:35		BH22-11 0'			-002										
	9:40		BH22-11 2'			-003										
	9:45		BH22-12 0'			-004										
	9:50		BH22-12 2'			-005										
	9:55		BH22-13 0'			-006										
	10:00		BH22-13 2'			-007										
	10:05		BH22-14 0'			-008										
	10:10		BH22-14 2'			-009										
	10:15		BH22-15 0'			-010										
	10:20		BH22-15 2'			-011										
	10:25		BH22-16 0'			-012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		Michael Barnes			4/23/22	1200
4/23/22	1900			courier	6.24.22	816

Remarks:

CC: Monica Peppin
Direct bill Devon

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:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5 - Day
☑ Standard ☑ Rush

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: Monica Peppin

Sampler:

On Ice: ☑ Yes ☐ No

# of Coolers: 2

Cooler Temp (including CF): 12.0 - 0.2 = 11.8 (°C)

2.2 - 0.2 = 2.0

10 - 0.2 = 09.8

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)	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)
6/22	10:30	Soil	BH22-16 2'	4 oz	Ice	013	✓	✓					✓			
	10:35		BH22-17 0'			014										
	10:40		BH22-17 2'			015										
	10:45		BH22-18 0'			016										
	10:50		BH22-18 2'			017										

Analysis Request

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
		Michael Barnes			6/23/22	1200
6/23/22	1900			courier	6.24.22	8:16

Remarks:

CC: Monica Peppin
Direct Bill Devon

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

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

July 06, 2022

Monica Peppin

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

RE: Strawberry 7 Fed Com 8H OrderNo.: 2206D48

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 20 sample(s) on 6/24/2022 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 **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed Com 8H
Lab ID: 2206D48-001 **Matrix:** SOIL

Client Sample ID: BH22-01 0'
Collection Date: 6/21/2022 9:45:00 AM
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 11:48:18 PM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/29/2022 11:48:18 PM
Surr: DNOP	88.9	51.1-141		%Rec	1	6/29/2022 11:48:18 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2022 10:31:27 PM
Surr: BFB	94.8	37.7-212		%Rec	1	6/27/2022 10:31:27 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 10:31:27 PM
Toluene	ND	0.050		mg/Kg	1	6/27/2022 10:31:27 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2022 10:31:27 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/27/2022 10:31:27 PM
Surr: 4-Bromofluorobenzene	89.6	70-130		%Rec	1	6/27/2022 10:31:27 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	930	60		mg/Kg	20	6/28/2022 11:26:15 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-01 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 9:50:00 AM
Lab ID: 2206D48-002 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 12:01:56 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 12:01:56 AM
Surr: DNOP	92.2	51.1-141		%Rec	1	6/30/2022 12:01:56 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/27/2022 11:41:41 PM
Surr: BFB	95.6	37.7-212		%Rec	1	6/27/2022 11:41:41 PM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/27/2022 11:41:41 PM
Toluene	ND	0.050		mg/Kg	1	6/27/2022 11:41:41 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/27/2022 11:41:41 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/27/2022 11:41:41 PM
Surr: 4-Bromofluorobenzene	90.9	70-130		%Rec	1	6/27/2022 11:41:41 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	300	60		mg/Kg	20	6/29/2022 11:39:20 AM

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	Estimated value
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 interference

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-02 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 9:55:00 AM
Lab ID: 2206D48-003 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 12:15:51 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 12:15:51 AM
Surr: DNOP	79.8	51.1-141		%Rec	1	6/30/2022 12:15:51 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 12:05:06 AM
Surr: BFB	100	37.7-212		%Rec	1	6/28/2022 12:05:06 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 12:05:06 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 12:05:06 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 12:05:06 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 12:05:06 AM
Surr: 4-Bromofluorobenzene	91.7	70-130		%Rec	1	6/28/2022 12:05:06 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	300	60		mg/Kg	20	6/29/2022 11:51:44 AM

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-02 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:00:00 AM
Lab ID: 2206D48-004 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 12:29:28 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 12:29:28 AM
Surr: DNOP	93.1	51.1-141		%Rec	1	6/30/2022 12:29:28 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 12:28:31 AM
Surr: BFB	96.1	37.7-212		%Rec	1	6/28/2022 12:28:31 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 12:28:31 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 12:28:31 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 12:28:31 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 12:28:31 AM
Surr: 4-Bromofluorobenzene	92.9	70-130		%Rec	1	6/28/2022 12:28:31 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	97	60		mg/Kg	20	6/29/2022 12:04:09 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-03 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:05:00 AM
Lab ID: 2206D48-005 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	38	15		mg/Kg	1	7/1/2022 8:04:00 AM
Motor Oil Range Organics (MRO)	93	49		mg/Kg	1	7/1/2022 8:04:00 AM
Surr: DNOP	89.4	51.1-141		%Rec	1	7/1/2022 8:04:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 12:51:56 AM
Surr: BFB	95.4	37.7-212		%Rec	1	6/28/2022 12:51:56 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 12:51:56 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 12:51:56 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 12:51:56 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 12:51:56 AM
Surr: 4-Bromofluorobenzene	90.3	70-130		%Rec	1	6/28/2022 12:51:56 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	270	60		mg/Kg	20	6/29/2022 12:16:35 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-03 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:10:00 AM
Lab ID: 2206D48-006 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 12:57:09 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/30/2022 12:57:09 AM
Surr: DNOP	94.9	51.1-141		%Rec	1	6/30/2022 12:57:09 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 1:15:24 AM
Surr: BFB	95.3	37.7-212		%Rec	1	6/28/2022 1:15:24 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 1:15:24 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 1:15:24 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 1:15:24 AM
Xylenes, Total	ND	0.099		mg/Kg	1	6/28/2022 1:15:24 AM
Surr: 4-Bromofluorobenzene	89.7	70-130		%Rec	1	6/28/2022 1:15:24 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	120	60		mg/Kg	20	6/29/2022 12:28:59 PM

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

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-04 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:15:00 AM
Lab ID: 2206D48-007 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 1:10:54 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 1:10:54 AM
Surr: DNOP	56.3	51.1-141		%Rec	1	6/30/2022 1:10:54 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 1:38:46 AM
Surr: BFB	94.5	37.7-212		%Rec	1	6/28/2022 1:38:46 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 1:38:46 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 1:38:46 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 1:38:46 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2022 1:38:46 AM
Surr: 4-Bromofluorobenzene	89.0	70-130		%Rec	1	6/28/2022 1:38:46 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	360	60		mg/Kg	20	6/29/2022 1:31:02 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-04 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:20:00 AM
Lab ID: 2206D48-008 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 1:24:45 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 1:24:45 AM
Surr: DNOP	106	51.1-141		%Rec	1	6/30/2022 1:24:45 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 2:02:08 AM
Surr: BFB	98.7	37.7-212		%Rec	1	6/28/2022 2:02:08 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 2:02:08 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 2:02:08 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 2:02:08 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2022 2:02:08 AM
Surr: 4-Bromofluorobenzene	92.3	70-130		%Rec	1	6/28/2022 2:02:08 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	500	60		mg/Kg	20	6/29/2022 2:08:14 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-05 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:25:00 AM
Lab ID: 2206D48-009 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 1:38:23 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 1:38:23 AM
Surr: DNOP	89.5	51.1-141		%Rec	1	6/30/2022 1:38:23 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 2:25:32 AM
Surr: BFB	97.2	37.7-212		%Rec	1	6/28/2022 2:25:32 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 2:25:32 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 2:25:32 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 2:25:32 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 2:25:32 AM
Surr: 4-Bromofluorobenzene	90.6	70-130		%Rec	1	6/28/2022 2:25:32 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	1300	60		mg/Kg	20	6/29/2022 2:20:39 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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-05 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:30:00 AM
Lab ID: 2206D48-010 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 1:52:08 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 1:52:08 AM
Surr: DNOP	131	51.1-141		%Rec	1	6/30/2022 1:52:08 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 3:12:22 AM
Surr: BFB	97.5	37.7-212		%Rec	1	6/28/2022 3:12:22 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 3:12:22 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 3:12:22 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 3:12:22 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 3:12:22 AM
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	6/28/2022 3:12:22 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	1300	60		mg/Kg	20	6/29/2022 2:33:04 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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-06 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:35:00 AM
Lab ID: 2206D48-011 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 2:05:47 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 2:05:47 AM
Surr: DNOP	91.3	51.1-141		%Rec	1	6/30/2022 2:05:47 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 3:35:54 AM
Surr: BFB	96.3	37.7-212		%Rec	1	6/28/2022 3:35:54 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 3:35:54 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 3:35:54 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 3:35:54 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 3:35:54 AM
Surr: 4-Bromofluorobenzene	90.2	70-130		%Rec	1	6/28/2022 3:35:54 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	1300	60		mg/Kg	20	6/29/2022 2:45:28 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-06 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:40:00 AM
Lab ID: 2206D48-012 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 2:19:35 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 2:19:35 AM
Surr: DNOP	81.4	51.1-141		%Rec	1	6/30/2022 2:19:35 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 3:59:17 AM
Surr: BFB	99.4	37.7-212		%Rec	1	6/28/2022 3:59:17 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 3:59:17 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 3:59:17 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 3:59:17 AM
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2022 3:59:17 AM
Surr: 4-Bromofluorobenzene	92.4	70-130		%Rec	1	6/28/2022 3:59:17 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	600	60		mg/Kg	20	6/29/2022 2:57:52 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-07 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:45:00 AM
Lab ID: 2206D48-013 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 2:33:17 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/30/2022 2:33:17 AM
Surr: DNOP	84.8	51.1-141		%Rec	1	6/30/2022 2:33:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 4:22:41 AM
Surr: BFB	97.3	37.7-212		%Rec	1	6/28/2022 4:22:41 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 4:22:41 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 4:22:41 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 4:22:41 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 4:22:41 AM
Surr: 4-Bromofluorobenzene	91.9	70-130		%Rec	1	6/28/2022 4:22:41 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	240	60		mg/Kg	20	6/29/2022 3:10:16 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-07 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:50:00 AM
Lab ID: 2206D48-014 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 2:47:00 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 2:47:00 AM
Surr: DNOP	102	51.1-141		%Rec	1	6/30/2022 2:47:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **NSB**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 4:46:11 AM
Surr: BFB	96.9	37.7-212		%Rec	1	6/28/2022 4:46:11 AM
EPA METHOD 8021B: VOLATILES						Analyst: **NSB**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 4:46:11 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 4:46:11 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 4:46:11 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2022 4:46:11 AM
Surr: 4-Bromofluorobenzene	89.8	70-130		%Rec	1	6/28/2022 4:46:11 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	310	60		mg/Kg	20	6/29/2022 3:22:41 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-08 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 10:55:00 AM
Lab ID: 2206D48-015 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	51	15		mg/Kg	1	6/30/2022 3:00:44 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 3:00:44 AM
Surr: DNOP	82.5	51.1-141		%Rec	1	6/30/2022 3:00:44 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 4:51:00 AM
Surr: BFB	85.6	37.7-212		%Rec	1	6/28/2022 4:51:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 4:51:00 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 4:51:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 4:51:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2022 4:51:00 AM
Surr: 4-Bromofluorobenzene	83.8	70-130		%Rec	1	6/28/2022 4:51:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	86	60		mg/Kg	20	6/29/2022 3:59:56 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-08 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 11:00:00 AM
Lab ID: 2206D48-016 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 3:14:17 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 3:14:17 AM
Surr: DNOP	95.0	51.1-141		%Rec	1	6/30/2022 3:14:17 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 5:11:00 AM
Surr: BFB	85.8	37.7-212		%Rec	1	6/28/2022 5:11:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 5:11:00 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 5:11:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 5:11:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2022 5:11:00 AM
Surr: 4-Bromofluorobenzene	83.1	70-130		%Rec	1	6/28/2022 5:11:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	ND	60		mg/Kg	20	6/29/2022 4:12:21 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-09 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 11:05:00 AM
Lab ID: 2206D48-017 **Matrix:** SOIL **Received Date:** 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 3:27:57 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 3:27:57 AM
Surr: DNOP	76.2	51.1-141		%Rec	1	6/30/2022 3:27:57 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/28/2022 5:31:00 AM
Surr: BFB	85.1	37.7-212		%Rec	1	6/28/2022 5:31:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 5:31:00 AM
Toluene	ND	0.050		mg/Kg	1	6/28/2022 5:31:00 AM
Ethylbenzene	ND	0.050		mg/Kg	1	6/28/2022 5:31:00 AM
Xylenes, Total	ND	0.10		mg/Kg	1	6/28/2022 5:31:00 AM
Surr: 4-Bromofluorobenzene	83.5	70-130		%Rec	1	6/28/2022 5:31:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	620	60		mg/Kg	20	6/29/2022 4:24:45 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-09 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 11:10:00 AM
Lab ID: 2206D48-018 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 3:41:26 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 3:41:26 AM
Surr: DNOP	94.0	51.1-141		%Rec	1	6/30/2022 3:41:26 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/28/2022 5:50:00 AM
Surr: BFB	88.8	37.7-212		%Rec	1	6/28/2022 5:50:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 5:50:00 AM
Toluene	ND	0.048		mg/Kg	1	6/28/2022 5:50:00 AM
Ethylbenzene	ND	0.048		mg/Kg	1	6/28/2022 5:50:00 AM
Xylenes, Total	ND	0.097		mg/Kg	1	6/28/2022 5:50:00 AM
Surr: 4-Bromofluorobenzene	84.1	70-130		%Rec	1	6/28/2022 5:50:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	140	60		mg/Kg	20	6/29/2022 4:37:09 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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-10 0'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 11:15:00 AM
Lab ID: 2206D48-019 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 3:55:00 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 3:55:00 AM
Surr: DNOP	80.1	51.1-141		%Rec	1	6/30/2022 3:55:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/28/2022 6:10:00 AM
Surr: BFB	87.7	37.7-212		%Rec	1	6/28/2022 6:10:00 AM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/28/2022 6:10:00 AM
Toluene	ND	0.049		mg/Kg	1	6/28/2022 6:10:00 AM
Ethylbenzene	ND	0.049		mg/Kg	1	6/28/2022 6:10:00 AM
Xylenes, Total	ND	0.098		mg/Kg	1	6/28/2022 6:10:00 AM
Surr: 4-Bromofluorobenzene	84.2	70-130		%Rec	1	6/28/2022 6:10:00 AM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	1200	60		mg/Kg	20	6/29/2022 4:49:35 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	Estimated value
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 interference

Analytical Report
Lab Order **2206D48**
Date Reported: **7/6/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-10 2'
Project: Strawberry 7 Fed Com 8H
Collection Date: 6/21/2022 11:20:00 AM
Lab ID: 2206D48-020 **Matrix:** SOIL
Received Date: 6/24/2022 8:16:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/29/2022 6:26:38 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/29/2022 6:26:38 AM
Surr: DNOP	104	51.1-141		%Rec	1	6/29/2022 6:26:38 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/28/2022 2:52:00 PM
Surr: BFB	89.2	37.7-212		%Rec	1	6/28/2022 2:52:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/28/2022 2:52:00 PM
Toluene	ND	0.047		mg/Kg	1	6/28/2022 2:52:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/28/2022 2:52:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/28/2022 2:52:00 PM
Surr: 4-Bromofluorobenzene	83.6	70-130		%Rec	1	6/28/2022 2:52:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	100	59		mg/Kg	20	6/29/2022 5:01:59 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	Estimated value
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 interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D48**

06-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed Com 8H

Sample ID: **MB-68427** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **68427** RunNo: **89102**

Prep Date: **6/28/2022** Analysis Date: **6/28/2022** SeqNo: **3166185** Units: **mg/Kg**

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

Sample ID: **LCS-68427** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **68427** RunNo: **89102**

Prep Date: **6/28/2022** Analysis Date: **6/28/2022** SeqNo: **3166186** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.4	90	110			

Sample ID: **MB-68441** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**

Client ID: **PBS** Batch ID: **68441** RunNo: **89143**

Prep Date: **6/29/2022** Analysis Date: **6/29/2022** SeqNo: **3167674** Units: **mg/Kg**

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

Sample ID: **LCS-68441** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**

Client ID: **LCSS** Batch ID: **68441** RunNo: **89143**

Prep Date: **6/29/2022** Analysis Date: **6/29/2022** SeqNo: **3167677** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.9	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D48**
06-Jul-22

Client: Devon Energy
Project: Strawberry 7 Fed Com 8H

Sample ID: **MB-68383** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **68383** RunNo: **89119**
Prep Date: **6/27/2022** Analysis Date: **6/29/2022** SeqNo: **3168413** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		94.2	51.1	141			

Sample ID: **LCS-68383** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **68383** RunNo: **89119**
Prep Date: **6/27/2022** Analysis Date: **6/29/2022** SeqNo: **3168414** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	15	50.00	0	80.8	64.4	127			
Surr: DNOP	4.9		5.000		98.4	51.1	141			

Sample ID: **MB-68386** SampType: **MBLK** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS** Batch ID: **68386** RunNo: **89114**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3168753** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.6		10.00		96.1	51.1	141			

Sample ID: **LCS-68386** SampType: **LCS** TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS** Batch ID: **68386** RunNo: **89114**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3168754** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	48	15	50.00	0	96.7	64.4	127			
Surr: DNOP	5.1		5.000		102	51.1	141			

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D48**
06-Jul-22

Client: Devon Energy
Project: Strawberry 7 Fed Com 8H

Sample ID: **mb-68369** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **68369** RunNo: **89055**
Prep Date: **6/26/2022** Analysis Date: **6/27/2022** SeqNo: **3163048** 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	960		1000		95.5	37.7	212			

Sample ID: **lcs-68369** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **68369** RunNo: **89055**
Prep Date: **6/26/2022** Analysis Date: **6/27/2022** SeqNo: **3163049** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	28	5.0	25.00	0	113	72.3	137			
Surr: BFB	2100		1000		207	37.7	212			

Sample ID: **lcs-68381** SampType: **LCS** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS** Batch ID: **68381** RunNo: **89080**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3164760** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	103	72.3	137			
Surr: BFB	2000		1000		196	37.7	212			

Sample ID: **mb-68381** SampType: **MBLK** TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS** Batch ID: **68381** RunNo: **89080**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3164761** 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	870		1000		87.5	37.7	212			

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D48**
06-Jul-22

Client: Devon Energy
Project: Strawberry 7 Fed Com 8H

Sample ID: **mb-68369** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **68369** RunNo: **89055**
Prep Date: **6/26/2022** Analysis Date: **6/27/2022** SeqNo: **3163096** 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	0.92		1.000		91.5	70	130			

Sample ID: **LCS-68369** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **68369** RunNo: **89055**
Prep Date: **6/26/2022** Analysis Date: **6/27/2022** SeqNo: **3163097** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	1.000	0	90.3	80	120			
Toluene	0.96	0.050	1.000	0	96.4	80	120			
Ethylbenzene	0.96	0.050	1.000	0	96.4	80	120			
Xylenes, Total	2.9	0.10	3.000	0	97.5	80	120			
Surr: 4-Bromofluorobenzene	0.95		1.000		95.5	70	130			

Sample ID: **2206d48-001ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH22-01 0'** Batch ID: **68369** RunNo: **89055**
Prep Date: **6/26/2022** Analysis Date: **6/27/2022** SeqNo: **3163100** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.90	0.025	0.9930	0	90.9	68.8	120			
Toluene	0.96	0.050	0.9930	0	96.5	73.6	124			
Ethylbenzene	0.97	0.050	0.9930	0	97.7	72.7	129			
Xylenes, Total	2.9	0.099	2.979	0	97.9	75.7	126			
Surr: 4-Bromofluorobenzene	0.92		0.9930		93.1	70	130			

Sample ID: **2206d48-001amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH22-01 0'** Batch ID: **68369** RunNo: **89055**
Prep Date: **6/26/2022** Analysis Date: **6/27/2022** SeqNo: **3163101** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.92	0.024	0.9728	0	94.4	68.8	120	1.70	20	
Toluene	0.96	0.049	0.9728	0	98.8	73.6	124	0.374	20	
Ethylbenzene	0.97	0.049	0.9728	0	99.8	72.7	129	0.0523	20	
Xylenes, Total	2.9	0.097	2.918	0	101	75.7	126	0.747	20	
Surr: 4-Bromofluorobenzene	0.91		0.9728		93.5	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT
Hall Environmental Analysis Laboratory, Inc.

WO#: **2206D48**
06-Jul-22

Client: Devon Energy
Project: Strawberry 7 Fed Com 8H

Sample ID: **lcs-68381** SampType: **LCS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS** Batch ID: **68381** RunNo: **89080**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3164770** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.8	80	120			
Toluene	0.95	0.050	1.000	0	94.8	80	120			
Ethylbenzene	0.94	0.050	1.000	0	94.0	80	120			
Xylenes, Total	2.8	0.10	3.000	0	92.9	80	120			
Surr: 4-Bromofluorobenzene	0.86		1.000		85.6	70	130			

Sample ID: **mb-68381** SampType: **MBLK** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS** Batch ID: **68381** RunNo: **89080**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3164771** 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	0.85		1.000		85.2	70	130			

Sample ID: **2206d48-020ams** SampType: **MS** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH22-10 2'** Batch ID: **68381** RunNo: **89080**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3165110** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	1.0	0.024	0.9515	0	105	68.8	120			
Toluene	1.0	0.048	0.9515	0	107	73.6	124			
Ethylbenzene	1.0	0.048	0.9515	0	108	72.7	129			
Xylenes, Total	3.0	0.095	2.854	0	107	75.7	126			
Surr: 4-Bromofluorobenzene	0.82		0.9515		86.1	70	130			

Sample ID: **2206d48-020amsd** SampType: **MSD** TestCode: **EPA Method 8021B: Volatiles**
Client ID: **BH22-10 2'** Batch ID: **68381** RunNo: **89080**
Prep Date: **6/27/2022** Analysis Date: **6/28/2022** SeqNo: **3165111** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.98	0.023	0.9372	0	104	68.8	120	2.05	20	
Toluene	1.0	0.047	0.9372	0	107	73.6	124	1.96	20	
Ethylbenzene	1.0	0.047	0.9372	0	107	72.7	129	2.39	20	
Xylenes, Total	3.0	0.094	2.812	0	106	75.7	126	2.13	20	
Surr: 4-Bromofluorobenzene	0.82		0.9372		87.3	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
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: 2206D48 | RcptNo: 1

Received By: Kasandra Payan 6/24/2022 8:16:00 AM

Completed By: Cheyenne Cason 6/24/2022 8:56:25 AM

Reviewed By: DAD 6/24/22

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. 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: CME 6/24/22

Special Handling (if applicable)

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

Person Notified: Date:

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

Regarding:

Client Instructions:

16. Additional remarks:

17. Cooler Information

Cooler No	Temp °C	Condition	Seal Intact	Seal No	Seal Date	Signed By
1	2.0	Good	Not Present			
2	0.8	Good	Not Present			

Chain-of-Custody Record

Client: Devon

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-Day
☑ Standard ☒ Rush

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: Monica Peppin

Sampler: M. Wier

On Ice: ☑ Yes ☐ No

# of Coolers: 2 2.2-0.2=2.0

Cooler Temp (Including CF): ~~2.0+0.2=2.2~~ (°C) 1.0-0.2=0.8

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. 2206048
6-21	9:45	Soil	BH22-01 0'	4oz	ice	001
	9:50		BH22-01 2'			002
	9:55		BH22-02 0'			003
	10:00		BH22-02 2'			004
	10:05		BH22-03 0'			005
	10:10		BH22-03 2'			006
	10:15		BH22-04 0'			007
	10:20		BH22-04 2'			008
	10:25		BH22-05 0'			009
	10:30		BH22-05 2'			010
	10:35		BH22-06 0'			011
	10:40		BH22-06 2'			012

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)
✓	✓					✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
		McKitric Wier			6/21/22	1200
6/21/22	1900			courier	6.24.22	8:16

Remarks: CC: Monica Peppin

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

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

Client: Devon

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5-Day
☒ Standard ☐ Rush

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: Monica Peppin

Sampler: M. Wier
On Ice: ☒ Yes ☐ No
# of Coolers: 2
Cooler Temp(including CF): ~~1.20 -0.2=1.0~~ 2.2-0.2=2.0 ~~Extended~~ (°C)
1.0-0.2=0.8

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2206048
6-21	10:45	Soil	BH22-07 0'	4oz	~~Cool~~ Ice	013
	10:50		BH22-07 2'			014
	10:55		BH22-08 0'			015
	11:00		BH22-08 2'			016
	11:05		BH22-09 0'			017
	11:10		BH22-09 2'			018
	11:15		BH22-10 0'			019
	11:20		BH22-10 2'			020
~~4/25~~			~~BH22-11~~			
~~4/30~~						

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)
✓	✓					✓			

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
		McKenzie Wier			6/25/22	1200
6/25/22	1900			courier	6.24.22	8:16

Remarks: CC: Monica Peppin

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

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

July 07, 2022

Monica Peppin

Devon Energy
6488 Seven Rivers Highway
Artesia, NM 88210
TEL: (505) 350-1336
FAX:

RE: Strawberry 7 Fed COM 8H OrderNo.: 2206E15

Dear Monica Peppin:

Hall Environmental Analysis Laboratory received 19 sample(s) on 6/25/2022 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 **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed COM 8H
Lab ID: 2206E15-001 **Matrix:** SOIL

Client Sample ID: BH22-19 0'
Collection Date: 6/23/2022 9:15:00 AM
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 5:44:42 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 5:44:42 AM
Surr: DNOP	102	51.1-141		%Rec	1	6/30/2022 5:44:42 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/29/2022 12:42:00 PM
Surr: BFB	88.5	37.7-212		%Rec	1	6/29/2022 12:42:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 12:42:00 PM
Toluene	ND	0.048		mg/Kg	1	6/29/2022 12:42:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/29/2022 12:42:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	6/29/2022 12:42:00 PM
Surr: 4-Bromofluorobenzene	84.3	70-130		%Rec	1	6/29/2022 12:42:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	200	60		mg/Kg	20	6/30/2022 1:47:47 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-19 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:20:00 AM
Lab ID: 2206E15-002 **Matrix:** SOIL **Received Date:** 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 5:58:46 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 5:58:46 AM
Surr: DNOP	99.5	51.1-141		%Rec	1	6/30/2022 5:58:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/29/2022 1:02:00 PM
Surr: BFB	89.6	37.7-212		%Rec	1	6/29/2022 1:02:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 1:02:00 PM
Toluene	ND	0.048		mg/Kg	1	6/29/2022 1:02:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/29/2022 1:02:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/29/2022 1:02:00 PM
Surr: 4-Bromofluorobenzene	85.0	70-130		%Rec	1	6/29/2022 1:02:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	75	60		mg/Kg	20	6/30/2022 2:25:02 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-20 0'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:25:00 AM
Lab ID: 2206E15-003 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	6/30/2022 6:12:46 AM
Motor Oil Range Organics (MRO)	ND	44		mg/Kg	1	6/30/2022 6:12:46 AM
Surr: DNOP	92.0	51.1-141		%Rec	1	6/30/2022 6:12:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/29/2022 1:22:00 PM
Surr: BFB	89.0	37.7-212		%Rec	1	6/29/2022 1:22:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 1:22:00 PM
Toluene	ND	0.048		mg/Kg	1	6/29/2022 1:22:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/29/2022 1:22:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	6/29/2022 1:22:00 PM
Surr: 4-Bromofluorobenzene	84.5	70-130		%Rec	1	6/29/2022 1:22:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	3600	150		mg/Kg	50	7/1/2022 6:23:55 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-20 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:30:00 AM
Lab ID: 2206E15-004 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 6:26:47 AM
Motor Oil Range Organics (MRO)	ND	50		mg/Kg	1	6/30/2022 6:26:47 AM
Surr: DNOP	105	51.1-141		%Rec	1	6/30/2022 6:26:47 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	6/29/2022 1:41:00 PM
Surr: BFB	91.1	37.7-212		%Rec	1	6/29/2022 1:41:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 1:41:00 PM
Toluene	ND	0.048		mg/Kg	1	6/29/2022 1:41:00 PM
Ethylbenzene	ND	0.048		mg/Kg	1	6/29/2022 1:41:00 PM
Xylenes, Total	ND	0.096		mg/Kg	1	6/29/2022 1:41:00 PM
Surr: 4-Bromofluorobenzene	85.2	70-130		%Rec	1	6/29/2022 1:41:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	780	61		mg/Kg	20	6/30/2022 2:49:51 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-21 0'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:35:00 AM
Lab ID: 2206E15-005 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 6:40:34 AM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/30/2022 6:40:34 AM
Surr: DNOP	88.5	51.1-141		%Rec	1	6/30/2022 6:40:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 2:01:00 PM
Surr: BFB	90.3	37.7-212		%Rec	1	6/29/2022 2:01:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/29/2022 2:01:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 2:01:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 2:01:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/29/2022 2:01:00 PM
Surr: 4-Bromofluorobenzene	86.2	70-130		%Rec	1	6/29/2022 2:01:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	170	60		mg/Kg	20	6/30/2022 3:02:15 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-21 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:40:00 AM
Lab ID: 2206E15-006 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 6:54:34 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 6:54:34 AM
Surr: DNOP	100	51.1-141		%Rec	1	6/30/2022 6:54:34 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/29/2022 2:21:00 PM
Surr: BFB	90.7	37.7-212		%Rec	1	6/29/2022 2:21:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.023		mg/Kg	1	6/29/2022 2:21:00 PM
Toluene	ND	0.047		mg/Kg	1	6/29/2022 2:21:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/29/2022 2:21:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/29/2022 2:21:00 PM
Surr: 4-Bromofluorobenzene	86.6	70-130		%Rec	1	6/29/2022 2:21:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	120	60		mg/Kg	20	6/30/2022 3:14:40 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-22 0'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:45:00 AM
Lab ID: 2206E15-007 **Matrix:** SOIL **Received Date:** 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	6/30/2022 7:08:38 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/30/2022 7:08:38 AM
Surr: DNOP	84.7	51.1-141		%Rec	1	6/30/2022 7:08:38 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 2:41:00 PM
Surr: BFB	90.7	37.7-212		%Rec	1	6/29/2022 2:41:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 2:41:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 2:41:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 2:41:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/29/2022 2:41:00 PM
Surr: 4-Bromofluorobenzene	87.2	70-130		%Rec	1	6/29/2022 2:41:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	67	60		mg/Kg	20	6/30/2022 3:27:05 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-22 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:50:00 AM
Lab ID: 2206E15-008 **Matrix:** SOIL **Received Date:** 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 7:22:41 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 7:22:41 AM
Surr: DNOP	95.8	51.1-141		%Rec	1	6/30/2022 7:22:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 3:01:00 PM
Surr: BFB	89.2	37.7-212		%Rec	1	6/29/2022 3:01:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/29/2022 3:01:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 3:01:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 3:01:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/29/2022 3:01:00 PM
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	6/29/2022 3:01:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	ND	59		mg/Kg	20	6/30/2022 3:39:29 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-23 0'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 9:55:00 AM
Lab ID: 2206E15-009 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	130	15		mg/Kg	1	6/30/2022 7:36:39 AM
Motor Oil Range Organics (MRO)	240	50		mg/Kg	1	6/30/2022 7:36:39 AM
Surr: DNOP	96.9	51.1-141		%Rec	1	6/30/2022 7:36:39 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 3:40:00 PM
Surr: BFB	86.1	37.7-212		%Rec	1	6/29/2022 3:40:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/29/2022 3:40:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 3:40:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 3:40:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/29/2022 3:40:00 PM
Surr: 4-Bromofluorobenzene	82.5	70-130		%Rec	1	6/29/2022 3:40:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	8000	300		mg/Kg	100	7/1/2022 6:36:20 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-23 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:00:00 AM
Lab ID: 2206E15-010 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 7:50:41 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/30/2022 7:50:41 AM
Surr: DNOP	92.8	51.1-141		%Rec	1	6/30/2022 7:50:41 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 4:00:00 PM
Surr: BFB	89.0	37.7-212		%Rec	1	6/29/2022 4:00:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 4:00:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 4:00:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 4:00:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/29/2022 4:00:00 PM
Surr: 4-Bromofluorobenzene	84.5	70-130		%Rec	1	6/29/2022 4:00:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	160	60		mg/Kg	20	6/30/2022 11:41:27 AM

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	Estimated value
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 interference		

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-23 4'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:05:00 AM
Lab ID: 2206E15-011 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 8:04:42 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/30/2022 8:04:42 AM
Surr: DNOP	95.6	51.1-141		%Rec	1	6/30/2022 8:04:42 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.6		mg/Kg	1	6/29/2022 4:20:00 PM
Surr: BFB	89.1	37.7-212		%Rec	1	6/29/2022 4:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.023		mg/Kg	1	6/29/2022 4:20:00 PM
Toluene	ND	0.046		mg/Kg	1	6/29/2022 4:20:00 PM
Ethylbenzene	ND	0.046		mg/Kg	1	6/29/2022 4:20:00 PM
Xylenes, Total	ND	0.092		mg/Kg	1	6/29/2022 4:20:00 PM
Surr: 4-Bromofluorobenzene	85.1	70-130		%Rec	1	6/29/2022 4:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	150	60		mg/Kg	20	6/30/2022 11:53:51 AM

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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Project: Strawberry 7 Fed COM 8H
Lab ID: 2206E15-012 **Matrix:** SOIL

Client Sample ID: BH22-24 0'
Collection Date: 6/23/2022 10:10:00 AM
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	1900	140		mg/Kg	10	7/1/2022 8:32:00 AM
Motor Oil Range Organics (MRO)	820	470		mg/Kg	10	7/1/2022 8:32:00 AM
Surr: DNOP	0	51.1-141	S	%Rec	10	7/1/2022 8:32:00 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	24		mg/Kg	5	6/29/2022 4:39:00 PM
Surr: BFB	118	37.7-212		%Rec	5	6/29/2022 4:39:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.12		mg/Kg	5	6/29/2022 4:39:00 PM
Toluene	ND	0.24		mg/Kg	5	6/29/2022 4:39:00 PM
Ethylbenzene	ND	0.24		mg/Kg	5	6/29/2022 4:39:00 PM
Xylenes, Total	ND	0.48		mg/Kg	5	6/29/2022 4:39:00 PM
Surr: 4-Bromofluorobenzene	95.7	70-130		%Rec	5	6/29/2022 4:39:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **LRN**
Chloride	2900	150		mg/Kg	50	7/1/2022 6:48:44 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-24 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:15:00 AM
Lab ID: 2206E15-013 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 8:46:40 AM
Motor Oil Range Organics (MRO)	ND	45		mg/Kg	1	6/30/2022 8:46:40 AM
Surr: DNOP	94.8	51.1-141		%Rec	1	6/30/2022 8:46:40 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 4:59:00 PM
Surr: BFB	87.8	37.7-212		%Rec	1	6/29/2022 4:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/29/2022 4:59:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 4:59:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 4:59:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/29/2022 4:59:00 PM
Surr: 4-Bromofluorobenzene	85.1	70-130		%Rec	1	6/29/2022 4:59:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	ND	60		mg/Kg	20	6/30/2022 12:43:29 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-24 4'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:20:00 AM
Lab ID: 2206E15-014 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	22	14		mg/Kg	1	6/30/2022 9:00:16 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 9:00:16 AM
Surr: DNOP	94.1	51.1-141		%Rec	1	6/30/2022 9:00:16 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 5:19:00 PM
Surr: BFB	88.5	37.7-212		%Rec	1	6/29/2022 5:19:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 5:19:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 5:19:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 5:19:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/29/2022 5:19:00 PM
Surr: 4-Bromofluorobenzene	85.5	70-130		%Rec	1	6/29/2022 5:19:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	77	60		mg/Kg	20	6/30/2022 12:55:53 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-24 6'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:25:00 AM
Lab ID: 2206E15-015 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	74	14		mg/Kg	1	6/30/2022 9:14:16 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	6/30/2022 9:14:16 AM
Surr: DNOP	95.0	51.1-141		%Rec	1	6/30/2022 9:14:16 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 5:39:00 PM
Surr: BFB	88.9	37.7-212		%Rec	1	6/29/2022 5:39:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 5:39:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 5:39:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 5:39:00 PM
Xylenes, Total	ND	0.097		mg/Kg	1	6/29/2022 5:39:00 PM
Surr: 4-Bromofluorobenzene	86.2	70-130		%Rec	1	6/29/2022 5:39:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	71	60		mg/Kg	20	6/30/2022 1:08:17 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	Estimated value
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 interference		

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-25 0'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:30:00 AM
Lab ID: 2206E15-016 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	13		mg/Kg	1	6/30/2022 9:28:18 AM
Motor Oil Range Organics (MRO)	ND	43		mg/Kg	1	6/30/2022 9:28:18 AM
Surr: DNOP	67.6	51.1-141		%Rec	1	6/30/2022 9:28:18 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	6/29/2022 5:59:00 PM
Surr: BFB	91.7	37.7-212		%Rec	1	6/29/2022 5:59:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.023		mg/Kg	1	6/29/2022 5:59:00 PM
Toluene	ND	0.047		mg/Kg	1	6/29/2022 5:59:00 PM
Ethylbenzene	ND	0.047		mg/Kg	1	6/29/2022 5:59:00 PM
Xylenes, Total	ND	0.094		mg/Kg	1	6/29/2022 5:59:00 PM
Surr: 4-Bromofluorobenzene	86.3	70-130		%Rec	1	6/29/2022 5:59:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	1300	60		mg/Kg	20	6/30/2022 2:10:19 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-25 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:30:00 AM
Lab ID: 2206E15-017 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 9:42:22 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	6/30/2022 9:42:22 AM
Surr: DNOP	96.3	51.1-141		%Rec	1	6/30/2022 9:42:22 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	6/29/2022 6:19:00 PM
Surr: BFB	90.8	37.7-212		%Rec	1	6/29/2022 6:19:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.024		mg/Kg	1	6/29/2022 6:19:00 PM
Toluene	ND	0.049		mg/Kg	1	6/29/2022 6:19:00 PM
Ethylbenzene	ND	0.049		mg/Kg	1	6/29/2022 6:19:00 PM
Xylenes, Total	ND	0.098		mg/Kg	1	6/29/2022 6:19:00 PM
Surr: 4-Bromofluorobenzene	86.4	70-130		%Rec	1	6/29/2022 6:19:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	89	60		mg/Kg	20	6/30/2022 2:22:43 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-26 0'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:35:00 AM
Lab ID: 2206E15-018 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **ED**
Diesel Range Organics (DRO)	ND	15		mg/Kg	1	6/30/2022 9:56:25 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	6/30/2022 9:56:25 AM
Surr: DNOP	65.0	51.1-141		%Rec	1	6/30/2022 9:56:25 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/29/2022 6:38:00 PM
Surr: BFB	90.5	37.7-212		%Rec	1	6/29/2022 6:38:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/29/2022 6:38:00 PM
Toluene	ND	0.050		mg/Kg	1	6/29/2022 6:38:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/29/2022 6:38:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	6/29/2022 6:38:00 PM
Surr: 4-Bromofluorobenzene	84.0	70-130		%Rec	1	6/29/2022 6:38:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	ND	60		mg/Kg	20	6/30/2022 2:35:07 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	Estimated value
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 interference

Analytical Report
Lab Order **2206E15**
Date Reported: **7/7/2022**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Devon Energy
Client Sample ID: BH22-26 2'
Project: Strawberry 7 Fed COM 8H
Collection Date: 6/23/2022 10:40:00 AM
Lab ID: 2206E15-019 **Matrix:** SOIL
Received Date: 6/25/2022 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **TOM**
Diesel Range Organics (DRO)	ND	14		mg/Kg	1	6/30/2022 2:51:06 PM
Motor Oil Range Organics (MRO)	ND	46		mg/Kg	1	6/30/2022 2:51:06 PM
Surr: DNOP	97.8	51.1-141		%Rec	1	6/30/2022 2:51:06 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **BRM**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	6/29/2022 8:37:00 PM
Surr: BFB	95.3	37.7-212		%Rec	1	6/29/2022 8:37:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **BRM**
Benzene	ND	0.025		mg/Kg	1	6/29/2022 8:37:00 PM
Toluene	ND	0.050		mg/Kg	1	6/29/2022 8:37:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	6/29/2022 8:37:00 PM
Xylenes, Total	ND	0.099		mg/Kg	1	6/29/2022 8:37:00 PM
Surr: 4-Bromofluorobenzene	84.6	70-130		%Rec	1	6/29/2022 8:37:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **NAI**
Chloride	ND	60		mg/Kg	20	6/30/2022 2:47:32 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	Estimated value
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 interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206E15**

07-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed COM 8H

Sample ID: **MB-68470**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **68470**	RunNo: **89170**							
Prep Date: **6/30/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169261**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-68470**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **68470**	RunNo: **89170**							
Prep Date: **6/30/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169262**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	92.0	90	110			

Sample ID: **MB-68460**	SampType: **mblk**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **PBS**	Batch ID: **68460**	RunNo: **89182**							
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3170091**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	ND	1.5								

Sample ID: **LCS-68460**	SampType: **lcs**	TestCode: **EPA Method 300.0: Anions**							
Client ID: **LCSS**	Batch ID: **68460**	RunNo: **89182**							
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3170092**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.8	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206E15**

07-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed COM 8H

Sample ID: **MB-68383**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **68383**	RunNo: **89119**							
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168413**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	9.4		10.00		94.2	51.1	141			

Sample ID: **LCS-68383**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **68383**	RunNo: **89119**							
Prep Date: **6/27/2022**	Analysis Date: **6/29/2022**	SeqNo: **3168414**	Units: **%Rec**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: DNOP	4.9		5.000		98.4	51.1	141			

Sample ID: **MB-68419**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **68419**	RunNo: **89119**							
Prep Date: **6/28/2022**	Analysis Date: **6/30/2022**	SeqNo: **3168439**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	10		10.00		100	51.1	141			

Sample ID: **LCS-68419**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **68419**	RunNo: **89119**							
Prep Date: **6/28/2022**	Analysis Date: **6/30/2022**	SeqNo: **3168440**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	40	15	50.00	0	80.6	64.4	127			
Surr: DNOP	4.7		5.000		93.9	51.1	141			

Sample ID: **MB-68456**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **PBS**	Batch ID: **68456**	RunNo: **89166**							
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169231**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	ND	15								
Motor Oil Range Organics (MRO)	ND	50								
Surr: DNOP	9.4		10.00		93.6	51.1	141			

Sample ID: **LCS-68456**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**							
Client ID: **LCSS**	Batch ID: **68456**	RunNo: **89166**							
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169234**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Estimated value
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 interference		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206E15**

07-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed COM 8H

Sample ID: **LCS-68456**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **68456**	RunNo: **89166**
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169234** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	41	15	50.00	0	82.2	64.4	127			
Surr: DNOP	4.7		5.000		94.7	51.1	141			

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206E15**

07-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed COM 8H

Sample ID: **lcs-68412**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **68412**	RunNo: **89131**							
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167128**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	5.0	25.00	0	104	72.3	137			
Surr: BFB	1900		1000		194	37.7	212			

Sample ID: **mb-68412**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **68412**	RunNo: **89131**							
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167131**	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	900		1000		90.0	37.7	212			

Sample ID: **lcs-68413**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **LCSS**	Batch ID: **68413**	RunNo: **89131**							
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167155**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	20	5.0	25.00	0	80.0	72.3	137			
Surr: BFB	1700		1000		171	37.7	212			

Sample ID: **mb-68413**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **PBS**	Batch ID: **68413**	RunNo: **89131**							
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167156**	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	880		1000		87.8	37.7	212			

Sample ID: **2206e15-019ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **BH22-26 2'**	Batch ID: **68413**	RunNo: **89131**							
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167158**	Units: **mg/Kg**						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	26	4.9	24.30	0	105	70	130			
Surr: BFB	2000		971.8		204	37.7	212			

Sample ID: **2206e15-019amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**							
Client ID: **BH22-26 2'**	Batch ID: **68413**	RunNo: **89131**							
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167159**	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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206E15**

07-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed COM 8H

Sample ID: **2206e15-019amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **BH22-26 2'**	Batch ID: **68413**	RunNo: **89131**
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167159** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.8	24.22	0	96.2	70	130	9.19	20	
Surr: BFB	1900		969.0		191	37.7	212	0	0	

Sample ID: **lcs-68453**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **68453**	RunNo: **89164**
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169050** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	2000		1000		196	37.7	212			

Sample ID: **mb-68453**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **68453**	RunNo: **89164**
Prep Date: **6/29/2022**	Analysis Date: **6/30/2022**	SeqNo: **3169051** Units: **%Rec**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Surr: BFB	900		1000		90.4	37.7	212			

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 interference
B	Analyte detected in the associated Method Blank
E	Estimated value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2206E15**

07-Jul-22

Client: Devon Energy

Project: Strawberry 7 Fed COM 8H

Sample ID: **lcs-68412**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **68412**	RunNo: **89131**
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167186** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.93	0.025	1.000	0	92.6	80	120			
Toluene	0.94	0.050	1.000	0	93.9	80	120			
Ethylbenzene	0.93	0.050	1.000	0	93.2	80	120			
Xylenes, Total	2.8	0.10	3.000	0	91.8	80	120			
Surr: 4-Bromofluorobenzene	0.85		1.000		85.4	70	130			

Sample ID: **mb-68412**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **68412**	RunNo: **89131**
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167187** 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	0.85		1.000		85.0	70	130			

Sample ID: **lcs-68413**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **68413**	RunNo: **89131**
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167210** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.85	0.025	1.000	0	85.4	80	120			
Toluene	0.86	0.050	1.000	0	85.7	80	120			
Ethylbenzene	0.85	0.050	1.000	0	85.1	80	120			
Xylenes, Total	2.5	0.10	3.000	0	84.3	80	120			
Surr: 4-Bromofluorobenzene	0.86		1.000		85.7	70	130			

Sample ID: **mb-68413**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **68413**	RunNo: **89131**
Prep Date: **6/28/2022**	Analysis Date: **6/29/2022**	SeqNo: **3167211** 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	0.84		1.000		83.6	70	130			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of range due to dilution or matrix interference
B	Analyte detected in the associated Method Blank
E	Estimated value
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: 2206E15 | RcptNo: 1

Received By: Sean Livingston 6/25/2022 9:30:00 AM S. Livingston

Completed By: Sean Livingston 6/25/2022 10:04:28 AM S. Livingston

Reviewed By: TMU 6/25/22

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. 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: SCL 6/25/22

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	1.6	Good				

Chain-of-Custody Record

Client: Devon

Mailing Address:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other
☐ EDD (Type)

Turn-Around Time: 5-Day
☒ Standard ☐ Rush

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: M. Peppin

Sampler: M. Wier

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.6 +0 = 1.6 (°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. 2206E15	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)
6/23	9:15	Soil	BH22-19 0'	4oz	ice	001	✓	✓					✓			
	9:20		BH22-19 2'			002										
	9:25		BH22-20 0'			003										
	9:30		BH22-20 2'			004										
	9:35		BH22-21 0'			005										
	9:40		BH22-21 2'			006										
	9:45		BH22-22 0'			007										
	9:50		BH22-22 2'			008										
	9:55		BH22-23 0'			009										
	10:00		BH22-23 2'			010										
	10:05		BH22-23 4'			011										
	10:10		BH22-24 0'			012										

Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
6/24/22	800	M'Kitric Wier			6/24/22	800
6/24/22	1900		Sal	courier	6/25/22	9:30

Remarks: CC: Monica Peppin

Direct bill Devon

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:

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time: 5-Day
☑ Standard ☒ Rush

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: M. Peppin

Sampler: M. Wier

On Ice: ☒ Yes ☐ No

# of Coolers: 1

Cooler Temp(including CF): 1.4 +0 = 1.4 (°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.	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)
6/23	10:15	Soil	BH22-24 2'	4oz	ice	013	✓	✓					✓			
	10:20		BH22-24 4'			014										
	10:25		BH22-24 6'			015										
	10:30		BH22-25 0'			016										
	10:30		BH22-25 2'			017										
	10:35		BH22-26 0'			018										
	10:40		BH22-26 2'			019										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
6/24/22	800	M-Kiteric Wier			6/24/22	800
Date:	Time:	Relinquished by:	Received by:	Via:	Date	Time
			See courier		6/25/22	9:30

Remarks: CC: Monica Peppin

Direct bill Devon

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

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

September 18, 2023

Kent Stallings

Vertex Resources Services, Inc.
3101 Boyd Drive
Carlsbad, NM 88220
TEL:
FAX:

RE: Strawberry 7 Fed Com 8H OrderNo.: 2309452

Dear Kent Stallings:

Hall Environmental Analysis Laboratory received 7 sample(s) on 9/9/2023 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 **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: WES23-01 0-0.5'
Project: Strawberry 7 Fed Com 8H
Collection Date: 9/7/2023 12:00:00 PM
Lab ID: 2309452-001 **Matrix:** SOIL
Received Date: 9/9/2023 9:30:00 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	9/13/2023 1:22:46 AM
Motor Oil Range Organics (MRO)	ND	47		mg/Kg	1	9/13/2023 1:22:46 AM
Surr: DNOP	95.8	69-147		%Rec	1	9/13/2023 1:22:46 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/13/2023 12:09:42 PM
Surr: BFB	95.1	15-244		%Rec	1	9/13/2023 12:09:42 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	9/13/2023 12:09:42 PM
Toluene	ND	0.049		mg/Kg	1	9/13/2023 12:09:42 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/13/2023 12:09:42 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/13/2023 12:09:42 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/13/2023 12:09:42 PM
EPA METHOD 300.0: ANIONS						Analyst: **JMT**
Chloride	120	60		mg/Kg	20	9/12/2023 8:42:34 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: WES23-02 0-0.5'
Project: Strawberry 7 Fed Com 8H
Collection Date: 9/7/2023 11:50:00 AM
Lab ID: 2309452-002 **Matrix:** SOIL
Received Date: 9/9/2023 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	ND	9.9		mg/Kg	1	9/13/2023 1:33:37 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/13/2023 1:33:37 AM
Surr: DNOP	86.1	69-147		%Rec	1	9/13/2023 1:33:37 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/13/2023 12:33:08 PM
Surr: BFB	95.9	15-244		%Rec	1	9/13/2023 12:33:08 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/13/2023 12:33:08 PM
Toluene	ND	0.048		mg/Kg	1	9/13/2023 12:33:08 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/13/2023 12:33:08 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/13/2023 12:33:08 PM
Surr: 4-Bromofluorobenzene	106	39.1-146		%Rec	1	9/13/2023 12:33:08 PM
EPA METHOD 300.0: ANIONS						Analyst: **RBC**
Chloride	2300	150		mg/Kg	50	9/13/2023 1:46:47 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: WES23-03 0-1'
Project: Strawberry 7 Fed Com 8H
Collection Date: 9/7/2023 12:15:00 PM
Lab ID: 2309452-003 **Matrix:** SOIL
Received Date: 9/9/2023 9:30:00 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	9/13/2023 1:44:30 AM
Motor Oil Range Organics (MRO)	ND	49		mg/Kg	1	9/13/2023 1:44:30 AM
Surr: DNOP	99.6	69-147		%Rec	1	9/13/2023 1:44:30 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.8		mg/Kg	1	9/13/2023 12:56:34 PM
Surr: BFB	95.4	15-244		%Rec	1	9/13/2023 12:56:34 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/13/2023 12:56:34 PM
Toluene	ND	0.048		mg/Kg	1	9/13/2023 12:56:34 PM
Ethylbenzene	ND	0.048		mg/Kg	1	9/13/2023 12:56:34 PM
Xylenes, Total	ND	0.097		mg/Kg	1	9/13/2023 12:56:34 PM
Surr: 4-Bromofluorobenzene	105	39.1-146		%Rec	1	9/13/2023 12:56:34 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	340	60		mg/Kg	20	9/13/2023 2:56:56 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BES23-01 0.5'
Project: Strawberry 7 Fed Com 8H
Collection Date: 9/7/2023 1:15:00 PM
Lab ID: 2309452-004 **Matrix:** SOIL **Received Date:** 9/9/2023 9:30:00 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	9/13/2023 1:55:25 AM
Motor Oil Range Organics (MRO)	ND	48		mg/Kg	1	9/13/2023 1:55:25 AM
Surr: DNOP	87.5	69-147		%Rec	1	9/13/2023 1:55:25 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	5.0		mg/Kg	1	9/13/2023 1:20:00 PM
Surr: BFB	98.3	15-244		%Rec	1	9/13/2023 1:20:00 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.025		mg/Kg	1	9/13/2023 1:20:00 PM
Toluene	ND	0.050		mg/Kg	1	9/13/2023 1:20:00 PM
Ethylbenzene	ND	0.050		mg/Kg	1	9/13/2023 1:20:00 PM
Xylenes, Total	ND	0.10		mg/Kg	1	9/13/2023 1:20:00 PM
Surr: 4-Bromofluorobenzene	108	39.1-146		%Rec	1	9/13/2023 1:20:00 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	790	60		mg/Kg	20	9/13/2023 3:34:09 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BES23-02 0.5'
Project: Strawberry 7 Fed Com 8H **Collection Date:** 9/7/2023 1:00:00 PM
Lab ID: 2309452-005 **Matrix:** SOIL **Received Date:** 9/9/2023 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	240	9.4		mg/Kg	1	9/13/2023 2:06:20 AM
Motor Oil Range Organics (MRO)	160	47		mg/Kg	1	9/13/2023 2:06:20 AM
Surr: DNOP	85.9	69-147		%Rec	1	9/13/2023 2:06:20 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/13/2023 1:43:29 PM
Surr: BFB	94.0	15-244		%Rec	1	9/13/2023 1:43:29 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/13/2023 1:43:29 PM
Toluene	ND	0.047		mg/Kg	1	9/13/2023 1:43:29 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/13/2023 1:43:29 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/13/2023 1:43:29 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/13/2023 1:43:29 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	440	60		mg/Kg	20	9/13/2023 4:36:12 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

Analytical Report
Lab Order **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc. **Client Sample ID:** BES23-03 1'
Project: Strawberry 7 Fed Com 8H **Collection Date:** 9/7/2023 1:30:00 PM
Lab ID: 2309452-006 **Matrix:** SOIL **Received Date:** 9/9/2023 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	160	9.4		mg/Kg	1	9/13/2023 2:17:26 AM
Motor Oil Range Organics (MRO)	250	47		mg/Kg	1	9/13/2023 2:17:26 AM
Surr: DNOP	91.7	69-147		%Rec	1	9/13/2023 2:17:26 AM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.7		mg/Kg	1	9/13/2023 2:06:52 PM
Surr: BFB	94.0	15-244		%Rec	1	9/13/2023 2:06:52 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/13/2023 2:06:52 PM
Toluene	ND	0.047		mg/Kg	1	9/13/2023 2:06:52 PM
Ethylbenzene	ND	0.047		mg/Kg	1	9/13/2023 2:06:52 PM
Xylenes, Total	ND	0.094		mg/Kg	1	9/13/2023 2:06:52 PM
Surr: 4-Bromofluorobenzene	104	39.1-146		%Rec	1	9/13/2023 2:06:52 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	1700	60		mg/Kg	20	9/13/2023 4:48:37 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.

Analytical Report
Lab Order **2309452**
Date Reported: **9/18/2023**

Hall Environmental Analysis Laboratory, Inc.

CLIENT: Vertex Resources Services, Inc.
Client Sample ID: BES23-04 1'
Project: Strawberry 7 Fed Com 8H
Collection Date: 9/7/2023 12:44:00 PM
Lab ID: 2309452-007 **Matrix:** SOIL **Received Date:** 9/9/2023 9:30:00 AM

Analyses	Result	RL	Qual	Units	DF	Date Analyzed
EPA METHOD 8015M/D: DIESEL RANGE ORGANICS						Analyst: **JME**
Diesel Range Organics (DRO)	240	91		mg/Kg	10	9/12/2023 12:44:42 PM
Motor Oil Range Organics (MRO)	640	460		mg/Kg	10	9/12/2023 12:44:42 PM
Surr: DNOP	0	69-147	S	%Rec	10	9/12/2023 12:44:42 PM
EPA METHOD 8015D: GASOLINE RANGE						Analyst: **JJP**
Gasoline Range Organics (GRO)	ND	4.9		mg/Kg	1	9/13/2023 2:30:22 PM
Surr: BFB	94.2	15-244		%Rec	1	9/13/2023 2:30:22 PM
EPA METHOD 8021B: VOLATILES						Analyst: **JJP**
Benzene	ND	0.024		mg/Kg	1	9/13/2023 2:30:22 PM
Toluene	ND	0.049		mg/Kg	1	9/13/2023 2:30:22 PM
Ethylbenzene	ND	0.049		mg/Kg	1	9/13/2023 2:30:22 PM
Xylenes, Total	ND	0.098		mg/Kg	1	9/13/2023 2:30:22 PM
Surr: 4-Bromofluorobenzene	103	39.1-146		%Rec	1	9/13/2023 2:30:22 PM
EPA METHOD 300.0: ANIONS						Analyst: **KCB**
Chloride	1000	60		mg/Kg	20	9/13/2023 5:01:01 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	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2309452**

18-Sep-23

Client: Vertex Resources Services, Inc.

Project: Strawberry 7 Fed Com 8H

Sample ID: **MB-77462** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **77462** RunNo: **99652**
Prep Date: **9/12/2023** Analysis Date: **9/12/2023** SeqNo: **3640831** Units: **mg/Kg**

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

Sample ID: **LCS-77462** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **77462** RunNo: **99652**
Prep Date: **9/12/2023** Analysis Date: **9/12/2023** SeqNo: **3640832** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	91.8	90	110			

Sample ID: **MB-77480** SampType: **mblk** TestCode: **EPA Method 300.0: Anions**
Client ID: **PBS** Batch ID: **77480** RunNo: **99669**
Prep Date: **9/13/2023** Analysis Date: **9/13/2023** SeqNo: **3642525** Units: **mg/Kg**

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

Sample ID: **LCS-77480** SampType: **lcs** TestCode: **EPA Method 300.0: Anions**
Client ID: **LCSS** Batch ID: **77480** RunNo: **99669**
Prep Date: **9/13/2023** Analysis Date: **9/13/2023** SeqNo: **3642526** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Chloride	14	1.5	15.00	0	93.3	90	110			

Qualifiers:

*	Value exceeds Maximum Contaminant Level.	B	Analyte detected in the associated Method Blank
D	Sample Diluted Due to Matrix	E	Above Quantitation Range/Estimated Value
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 standard limits. If undiluted results may be estimated.		

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2309452**

18-Sep-23

Client: Vertex Resources Services, Inc.

Project: Strawberry 7 Fed Com 8H

Sample ID: **MB-77427**	SampType: **MBLK**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **PBS**	Batch ID: **77427**	RunNo: **99614**
Prep Date: **9/11/2023**	Analysis Date: **9/12/2023**	SeqNo: **3639077** 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	11		10.00		110	69	147			

Sample ID: **LCS-77427**	SampType: **LCS**	TestCode: **EPA Method 8015M/D: Diesel Range Organics**
Client ID: **LCSS**	Batch ID: **77427**	RunNo: **99614**
Prep Date: **9/11/2023**	Analysis Date: **9/12/2023**	SeqNo: **3639081** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Diesel Range Organics (DRO)	52	10	50.00	0	104	61.9	130			
Surr: DNOP	5.2		5.000		103	69	147			

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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2309452**

18-Sep-23

Client: Vertex Resources Services, Inc.

Project: Strawberry 7 Fed Com 8H

Sample ID: **lcs-77425**	SampType: **LCS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **LCSS**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641132** 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	94.4	70	130			
Surr: BFB	2000		1000		203	15	244			

Sample ID: **mb-77425**	SampType: **MBLK**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **PBS**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641133** 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	980		1000		97.9	15	244			

Sample ID: **2309452-001ams**	SampType: **MS**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **WES23-01 0-0.5'**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641544** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.53	0	94.4	70	130			
Surr: BFB	2000		981.4		205	15	244			

Sample ID: **2309452-001amsd**	SampType: **MSD**	TestCode: **EPA Method 8015D: Gasoline Range**
Client ID: **WES23-01 0-0.5'**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641545** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Gasoline Range Organics (GRO)	23	4.9	24.51	0	95.2	70	130	0.830	20	
Surr: BFB	2000		980.4		200	15	244	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 standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
J	Analyte detected below quantitation limits
P	Sample pH Not In Range
RL	Reporting Limit

QC SUMMARY REPORT

Hall Environmental Analysis Laboratory, Inc.

WO#: **2309452**

18-Sep-23

Client: Vertex Resources Services, Inc.

Project: Strawberry 7 Fed Com 8H

Sample ID: **LCS-77425**	SampType: **LCS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **LCSS**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641135** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.99	0.025	1.000	0	99.5	70	130			
Toluene	1.0	0.050	1.000	0	102	70	130			
Ethylbenzene	1.0	0.050	1.000	0	102	70	130			
Xylenes, Total	3.1	0.10	3.000	0	103	70	130			
Surr: 4-Bromofluorobenzene	1.1		1.000		105	39.1	146			

Sample ID: **mb-77425**	SampType: **MBLK**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **PBS**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641136** 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	1.1		1.000		107	39.1	146			

Sample ID: **2309452-002ams**	SampType: **MS**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WES23-02 0-0.5'**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641570** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.97	0.024	0.9690	0	99.7	70	130			
Toluene	0.99	0.048	0.9690	0	102	70	130			
Ethylbenzene	1.0	0.048	0.9690	0	103	70	130			
Xylenes, Total	3.0	0.097	2.907	0	104	70	130			
Surr: 4-Bromofluorobenzene	1.0		0.9690		105	39.1	146			

Sample ID: **2309452-002amsd**	SampType: **MSD**	TestCode: **EPA Method 8021B: Volatiles**
Client ID: **WES23-02 0-0.5'**	Batch ID: **77425**	RunNo: **99662**
Prep Date: **9/11/2023**	Analysis Date: **9/13/2023**	SeqNo: **3641571** Units: **mg/Kg**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	%RPD	RPDLimit	Qual
Benzene	0.95	0.024	0.9643	0	99.0	70	130	1.18	20	
Toluene	0.99	0.048	0.9643	0	103	70	130	0.220	20	
Ethylbenzene	0.99	0.048	0.9643	0	103	70	130	0.804	20	
Xylenes, Total	3.0	0.096	2.893	0	103	70	130	0.851	20	
Surr: 4-Bromofluorobenzene	1.0		0.9643		107	39.1	146	0	0	

Qualifiers:

*	Value exceeds Maximum Contaminant Level.
D	Sample Diluted Due to Matrix
H	Holding times for preparation or analysis exceeded
ND	Not Detected at the Reporting Limit
PQL	Practical Quanitative Limit
S	% Recovery outside of standard limits. If undiluted results may be estimated.
B	Analyte detected in the associated Method Blank
E	Above Quantitation Range/Estimated Value
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: Vertex Resources Services, Inc.

Work Order Number: 2309452

RcptNo: 1

Received By: **Cheyenne Cason** 9/9/2023 9:30:00 AM

Completed By: **Cheyenne Cason** 9/9/2023 9:41:37 AM

Reviewed By: 9/11/23

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. 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: CMC 9/9/23

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	1.9	Good	Not Present	Yogi		

Chain-of-Custody Record

Client: Vertex / Devon

Mailing Address: On file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 72 hr

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: Kent Stallings

Sampler: SM

On Ice: ☒ Yes ☐ No Yogi

# of Coolers: 2 / 1.9 - 0 = 1.9

Cooler Temp(including CF): ~~26.4 - 0 = 26.4~~ (°C)

CMC 9/9/23

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No. 2309452	BTEX / MTBE / TMB's (8021)	TPH:8015D(GRO / DRO / MRO)	8081 Pesticides/8082 PCB's	EDB (Method 504.1)	PAHs by 8310 or 8270SIMS	RCRA 8 Metals	Cl, F, Br, NO_3, NO_2, PO_4, SO_4	8260 (VOA)	8270 (Semi-VOA)	Total Coliform (Present/Absent)
9/7/23	12:00	Soil	WES23-01 00.5'	4oz jar	Ice	001	✓	✓					✓			
	11:50		WES23-02 00.5'			002										
	12:15		WES23-03 0-1'			003										
	13:15		BES23-01 0.5'			004										
	13:00		BES23-02 0.5'			005										
	13:30		BES23-03 1'			006										
	12:44		BES23-04 1'			007										

Date	Time	Relinquished by:	Received by:	Via:	Date	Time
9/8/23	945	Stephanie McClure			9/8/23	945
9/8/23	1100		CMC courier		9/9/23	0930

Remarks: Direct bill to: Devon
W/O #: 210388 62
cc KStallings@vertex.ca
SMccarty@vertex.ca

HALL ENVIRONMENTAL ANALYSIS LABORATORY

www.hallenvironmental.com

4901 Hawkins NE - Albuquerque, NM 87109

Tel. 505-345-3975 Fax 505-345-4107

Analysis Request

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.

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Mr. Kent Stallings
Vertex
3101 Boyd Dr
Carlsbad, New Mexico 88220

Generated 5/28/2024 3:51:08 PM

JOB DESCRIPTION

Strawberry 7 Fed Com 8H

JOB NUMBER

885-4702-1

Eurofins Albuquerque
4901 Hawkins NE
Albuquerque NM 87109

See page two for job notes and contact information.

Eurofins Albuquerque

Job Notes

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Environment Testing South Central, LLC Project Manager.

Authorization

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5/28/2024 3:51:08 PM

Authorized for release by
Andy Freeman, Business Unit Manager
andy.freeman@et.eurofinsus.com
(505)345-3975

Client: Vertex
Project/Site: Strawberry 7 Fed Com 8H

Laboratory Job ID: 885-4702-1

Table of Contents

Definitions/Glossary

Client: Vertex Job ID: 885-4702-1
Project/Site: Strawberry 7 Fed Com 8H

Qualifiers

GC VOA

Qualifier	Qualifier Description
S1+	Surrogate recovery exceeds control limits, high biased.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Case Narrative

Client: Vertex Job ID: 885-4702-1
Project: Strawberry 7 Fed Com 8H

Job ID: 885-4702-1 **Eurofins Albuquerque**

Job Narrative
885-4702-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers are applied to indicate exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The sample was received on 5/17/2024 8:00 AM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.0°C.

Gasoline Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

GC VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Diesel Range Organics
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

HPLC/IC
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client Sample Results

Client: Vertex
Job ID: 885-4702-1
Project/Site: Strawberry 7 Fed Com 8H

Client Sample ID: Backfill24-01
Lab Sample ID: 885-4702-1
Date Collected: 05/15/24 12:55
Matrix: Solid
Date Received: 05/17/24 08:00

Method: SW846 8015D - Gasoline Range Organics (GRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		4.8		mg/Kg		05/17/24 12:53	05/21/24 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*86*		*35 - 166*	*05/17/24 12:53*	*05/21/24 11:22*	*1*

Method: SW846 8021B - Volatile Organic Compounds (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.024		mg/Kg		05/17/24 12:53	05/21/24 11:22	1
Ethylbenzene	ND		0.048		mg/Kg		05/17/24 12:53	05/21/24 11:22	1
Toluene	ND		0.048		mg/Kg		05/17/24 12:53	05/21/24 11:22	1
Xylenes, Total	ND		0.097		mg/Kg		05/17/24 12:53	05/21/24 11:22	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*48 - 145*	*05/17/24 12:53*	*05/21/24 11:22*	*1*

Method: SW846 8015D - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		9.4		mg/Kg		05/20/24 09:35	05/20/24 14:33	1
Motor Oil Range Organics [C28-C40]	ND		47		mg/Kg		05/20/24 09:35	05/20/24 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*88*		*62 - 134*	*05/20/24 09:35*	*05/20/24 14:33*	*1*

Method: EPA 300.0 - Anions, Ion Chromatography

Analyte	Result	Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	**82**		60		mg/Kg		05/20/24 08:26	05/20/24 11:54	20

QC Sample Results

Client: Vertex
Project/Site: Strawberry 7 Fed Com 8H

Job ID: 885-4702-1

Method: 8015D - Gasoline Range Organics (GRO) (GC)

Lab Sample ID: MB 885-5190/1-A
Matrix: Solid
Analysis Batch: 5375

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5190

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics [C6 - C10]	ND		5.0		mg/Kg		05/17/24 12:53	05/21/24 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*87*		*35 - 166*	*05/17/24 12:53*	*05/21/24 10:58*	*1*

Lab Sample ID: LCS 885-5190/2-A
Matrix: Solid
Analysis Batch: 5375

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5190

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Gasoline Range Organics [C6 - C10]			25.0	24.6		mg/Kg		98	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*191*	*S1+*	*35 - 166*

Method: 8021B - Volatile Organic Compounds (GC)

Lab Sample ID: MB 885-5190/1-A
Matrix: Solid
Analysis Batch: 5376

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5190

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		0.025		mg/Kg		05/17/24 12:53	05/21/24 10:58	1
Ethylbenzene	ND		0.050		mg/Kg		05/17/24 12:53	05/21/24 10:58	1
Toluene	ND		0.050		mg/Kg		05/17/24 12:53	05/21/24 10:58	1
Xylenes, Total	ND		0.10		mg/Kg		05/17/24 12:53	05/21/24 10:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*	*05/17/24 12:53*	*05/21/24 10:58*	*1*

Lab Sample ID: LCS 885-5190/3-A
Matrix: Solid
Analysis Batch: 5376

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5190

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Benzene			1.00	0.918		mg/Kg		92	70 - 130		
Ethylbenzene			1.00	0.879		mg/Kg		88	70 - 130		
m,p-Xylene			2.00	1.78		mg/Kg		89	70 - 130		
o-Xylene			1.00	0.876		mg/Kg		88	70 - 130		
Toluene			1.00	0.872		mg/Kg		87	70 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*89*		*48 - 145*

QC Sample Results

Client: Vertex
Project/Site: Strawberry 7 Fed Com 8H

Job ID: 885-4702-1

Method: 8021B - Volatile Organic Compounds (GC) (Continued)

Lab Sample ID: 885-4702-1 MS
Matrix: Solid
Analysis Batch: 5376

Client Sample ID: Backfill24-01
Prep Type: Total/NA
Prep Batch: 5190

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Benzene	ND		0.977	0.888		mg/Kg		91	70 - 130
Ethylbenzene	ND		0.977	0.848		mg/Kg		87	70 - 130
m,p-Xylene	ND		1.95	1.72		mg/Kg		87	70 - 130
o-Xylene	ND		0.977	0.830		mg/Kg		85	70 - 130
Toluene	ND		0.977	0.850		mg/Kg		86	70 - 130

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*91*		*48 - 145*

Lab Sample ID: 885-4702-1 MSD
Matrix: Solid
Analysis Batch: 5376

Client Sample ID: Backfill24-01
Prep Type: Total/NA
Prep Batch: 5190

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Benzene	ND		0.981	0.882		mg/Kg		90	70 - 130	1	20
Ethylbenzene	ND		0.981	0.842		mg/Kg		86	70 - 130	1	20
m,p-Xylene	ND		1.96	1.71		mg/Kg		86	70 - 130	1	20
o-Xylene	ND		0.981	0.842		mg/Kg		86	70 - 130	1	20
Toluene	ND		0.981	0.833		mg/Kg		84	70 - 130	2	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*90*		*48 - 145*

Method: 8015D - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 885-5249/1-A
Matrix: Solid
Analysis Batch: 5285

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5249

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	ND		10		mg/Kg		05/20/24 09:35	05/20/24 12:01	1
Motor Oil Range Organics [C28-C40]	ND		50		mg/Kg		05/20/24 09:35	05/20/24 12:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Di-n-octyl phthalate (Surr)	*89*		*62 - 134*	*05/20/24 09:35*	*05/20/24 12:01*	*1*

Lab Sample ID: LCS 885-5249/2-A
Matrix: Solid
Analysis Batch: 5285

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5249

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Diesel Range Organics [C10-C28]			50.0	46.8		mg/Kg		94	60 - 135

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Di-n-octyl phthalate (Surr)	*104*		*62 - 134*

QC Sample Results

Client: Vertex
Project/Site: Strawberry 7 Fed Com 8H

Job ID: 885-4702-1

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 885-5240/1-A
Matrix: Solid
Analysis Batch: 5279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 5240

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		1.5		mg/Kg		05/20/24 08:26	05/20/24 08:53	1

Lab Sample ID: LCS 885-5240/2-A
Matrix: Solid
Analysis Batch: 5279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 5240

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			15.0	14.9		mg/Kg		99	90 - 110		

Lab Sample ID: MB 885-5279/6
Matrix: Solid
Analysis Batch: 5279

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL		Unit	D	Prepared	Analyzed	Dil Fac
Chloride	ND		0.50		mg/Kg			05/20/24 07:47	1

Lab Sample ID: MRL 885-5279/5
Matrix: Solid
Analysis Batch: 5279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec Limits		
Chloride			0.500	0.544		mg/L		109	50 - 150		

QC Association Summary

Client: Vertex
Job ID: 885-4702-1
Project/Site: Strawberry 7 Fed Com 8H

GC VOA

Prep Batch: 5190

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	5030C	
MB 885-5190/1-A	Method Blank	Total/NA	Solid	5030C	
LCS 885-5190/2-A	Lab Control Sample	Total/NA	Solid	5030C	
LCS 885-5190/3-A	Lab Control Sample	Total/NA	Solid	5030C	
885-4702-1 MS	Backfill24-01	Total/NA	Solid	5030C	
885-4702-1 MSD	Backfill24-01	Total/NA	Solid	5030C	

Analysis Batch: 5375

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	8015D	5190
MB 885-5190/1-A	Method Blank	Total/NA	Solid	8015D	5190
LCS 885-5190/2-A	Lab Control Sample	Total/NA	Solid	8015D	5190

Analysis Batch: 5376

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	8021B	5190
MB 885-5190/1-A	Method Blank	Total/NA	Solid	8021B	5190
LCS 885-5190/3-A	Lab Control Sample	Total/NA	Solid	8021B	5190
885-4702-1 MS	Backfill24-01	Total/NA	Solid	8021B	5190
885-4702-1 MSD	Backfill24-01	Total/NA	Solid	8021B	5190

GC Semi VOA

Prep Batch: 5249

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	SHAKE	
MB 885-5249/1-A	Method Blank	Total/NA	Solid	SHAKE	
LCS 885-5249/2-A	Lab Control Sample	Total/NA	Solid	SHAKE	

Analysis Batch: 5285

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	8015D	5249
MB 885-5249/1-A	Method Blank	Total/NA	Solid	8015D	5249
LCS 885-5249/2-A	Lab Control Sample	Total/NA	Solid	8015D	5249

HPLC/IC

Prep Batch: 5240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	300_Prep	
MB 885-5240/1-A	Method Blank	Total/NA	Solid	300_Prep	
LCS 885-5240/2-A	Lab Control Sample	Total/NA	Solid	300_Prep	

Analysis Batch: 5279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
885-4702-1	Backfill24-01	Total/NA	Solid	300.0	5240
MB 885-5240/1-A	Method Blank	Total/NA	Solid	300.0	5240
MB 885-5279/6	Method Blank	Total/NA	Solid	300.0	
LCS 885-5240/2-A	Lab Control Sample	Total/NA	Solid	300.0	5240
MRL 885-5279/5	Lab Control Sample	Total/NA	Solid	300.0	

Lab Chronicle

Client: Vertex
Job ID: 885-4702-1
Project/Site: Strawberry 7 Fed Com 8H

Client Sample ID: Backfill24-01
Lab Sample ID: 885-4702-1

Date Collected: 05/15/24 12:55
Matrix: Solid

Date Received: 05/17/24 08:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5030C			5190	AT	EET ALB	05/17/24 12:53
Total/NA	Analysis	8015D		1	5375	JP	EET ALB	05/21/24 11:22
Total/NA	Prep	5030C			5190	AT	EET ALB	05/17/24 12:53
Total/NA	Analysis	8021B		1	5376	JP	EET ALB	05/21/24 11:22
Total/NA	Prep	SHAKE			5249	JU	EET ALB	05/20/24 09:35
Total/NA	Analysis	8015D		1	5285	JU	EET ALB	05/20/24 14:33
Total/NA	Prep	300_Prep			5240	JT	EET ALB	05/20/24 08:26
Total/NA	Analysis	300.0		20	5279	JT	EET ALB	05/20/24 11:54

Laboratory References:

EET ALB = Eurofins Albuquerque, 4901 Hawkins NE, Albuquerque, NM 87109, TEL (505)345-3975

Accreditation/Certification Summary

Client: Vertex Job ID: 885-4702-1
Project/Site: Strawberry 7 Fed Com 8H

Laboratory: Eurofins Albuquerque

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
New Mexico	State	NM9425, NM0901	02-26-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
300.0	300_Prep	Solid	Chloride
8015D	5030C	Solid	Gasoline Range Organics [C6 - C10]
8015D	SHAKE	Solid	Diesel Range Organics [C10-C28]
8015D	SHAKE	Solid	Motor Oil Range Organics [C28-C40]
8021B	5030C	Solid	Benzene
8021B	5030C	Solid	Ethylbenzene
8021B	5030C	Solid	Toluene
8021B	5030C	Solid	Xylenes, Total

Oregon	NELAP	NM100001	02-26-25

Chain-of-Custody Record

Client: Vertex (Dawn)

Mailing Address: On file

Phone #:

email or Fax#:

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

Accreditation: ☐ Az Compliance
☐ NELAC ☐ Other

☐ EDD (Type)

Turn-Around Time:
☐ Standard ☑ Rush 72 hrs

Project Name: Strawberry 7 Fed Com 8H

Project #: 22E-02063

Project Manager: KentStallings

Sampler: SM

On Ice: ☑ Yes ☐ No

# of Coolers: 1 Monty

Cooler Temp(Including CF): 2.0+0=2.0 (°C)

HALL ENVIRONMENTAL ANALYSIS LABOR
www.hallenvironmental.com
4901 Hawkins NE - Albuquerque, NM 87
Tel. 505-345-3975 Fax 505-345-4107

885-4702 COC

Date	Time	Matrix	Sample Name	Container Type and #	Preservative Type	HEAL No.
5/15/24	12:55	Soil	Backfill24-01	4oz jar	Ice	

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)						
✓	✓					✓									

Date	Time	Relinquished by	Received by	Via	Date	Time
5/16/24	930				5/16/24	930
5/16/24	1900			courier	5/17/24	8:00

Remarks: Directbill to: Dawn W/O#: 216398862

C.C. KStallings@vertex.ca

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

Login Sample Receipt Checklist

Client: Vertex Job Number: 885-4702-1

Login Number: 4702 **List Source: Eurofins Albuquerque**
List Number: 1
Creator: McQuiston, Steven

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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QUESTIONS

Action 357513

QUESTIONS

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 357513
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Prerequisites	
Incident ID (n#)	**nAPP2215725364**
Incident Name	**NAPP2215725364 STRAWBERRY 7 FED COM #8H @ 30-015-41507**
Incident Type	**Oil Release**
Incident Status	**Remediation Closure Report Received**
Incident Well	**[30-015-41507] STRAWBERRY 7 FEDERAL COM #008H**

Location of Release Source	
Please answer all the questions in this group.	
Site Name	STRAWBERRY 7 FED COM #8H
Date Release Discovered	06/04/2022
Surface Owner	Federal

Incident Details	
Please answer all the questions in this group.	
Incident Type	Oil Release
Did this release result in a fire or is the result of a fire	No
Did this release result in any injuries	No
Has this release reached or does it have a reasonable probability of reaching a watercourse	No
Has this release endangered or does it have a reasonable probability of endangering public health	No
Has this release substantially damaged or will it substantially damage property or the environment	No
Is this release of a volume that is or may with reasonable probability be detrimental to fresh water	No

Nature and Volume of Release	
Material(s) released, please answer all that apply below. Any calculations or specific justifications for the volumes provided should be attached to the follow-up C-141 submission.	
Crude Oil Released (bbls) Details	Cause: Equipment Failure | Well | Crude Oil | Released: 6 BBL | Recovered: 3 BBL | Lost: 3 BBL.
Produced Water Released (bbls) Details	*Not answered.*
Is the concentration of chloride in the produced water >10,000 mg/l	*Not answered.*
Condensate Released (bbls) Details	*Not answered.*
Natural Gas Vented (Mcf) Details	*Not answered.*
Natural Gas Flared (Mcf) Details	*Not answered.*
Other Released Details	*Not answered.*
Are there additional details for the questions above (i.e. any answer containing Other, Specify, Unknown, and/or Fire, or any negative lost amounts)	Lease Operator was driving by the well and saw oil spraying from the polish rod. The well was shut down. The polish rod was tightened in order to get the well to stop leaking. Vacuum truck recovered 3 bbls. Spill was not in containment, but on the well pad. Spill did not go offsite.

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QUESTIONS (continued)

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QUESTIONS

Nature and Volume of Release (continued)	
Is this a gas only submission (i.e. only significant Mcf values reported)	**No, according to supplied volumes this does not appear to be a "gas only" report.**
Was this a major release as defined by Subsection A of 19.15.29.7 NMAC	**No**
Reasons why this would be considered a submission for a notification of a major release	*Unavailable.*
With the implementation of the 19.15.27 NMAC (05/25/2021), venting and/or flaring of natural gas (i.e. gas only) are to be submitted on the C-129 form.	

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	True
The impacted area has been secured to protect human health and the environment	True
Released materials have been contained via the use of berms or dikes, absorbent pads, or other containment devices	True
All free liquids and recoverable materials have been removed and managed appropriately	True
If all the actions described above have not been undertaken, explain why	*Not answered.*
Per Paragraph (4) of Subsection B of 19.15.29.8 NMAC the responsible party may commence remediation immediately after discovery of a release. If remediation has begun, please prepare and attach a narrative of actions to date in the follow-up C-141 submission. If remedial efforts have been successfully completed or if the release occurred within a lined containment area (see Subparagraph (a) of Paragraph (5) of Subsection A of 19.15.29.11 NMAC), please prepare and attach all information needed for closure evaluation in the follow-up C-141 submission.	

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.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 06/25/2024

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QUESTIONS (continued)

Operator: DEVON ENERGY PRODUCTION COMPANY, LP 333 West Sheridan Ave. Oklahoma City, OK 73102	OGRID: 6137
	Action Number: 357513
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Site Characterization	
Please answer all the questions in this group (only required when seeking remediation plan approval and beyond). 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 in feet below ground surface (ft bgs)	Between 100 and 500 (ft.)
What method was used to determine the depth to ground water	Attached Document
Did this release impact groundwater or surface water	No
What is the minimum distance, between the closest lateral extents of the release and the following surface areas:	
A continuously flowing watercourse or any other significant watercourse	Between ½ and 1 (mi.)
Any lakebed, sinkhole, or playa lake (measured from the ordinary high-water mark)	Between 1 and 5 (mi.)
An occupied permanent residence, school, hospital, institution, or church	Greater than 5 (mi.)
A spring or a private domestic fresh water well used by less than five households for domestic or stock watering purposes	Between 1 and 5 (mi.)
Any other fresh water well or spring	Between 1 and 5 (mi.)
Incorporated municipal boundaries or a defined municipal fresh water well field	Greater than 5 (mi.)
A wetland	Between ½ and 1 (mi.)
A subsurface mine	Greater than 5 (mi.)
An (non-karst) unstable area	Between 1 and 5 (mi.)
Categorize the risk of this well / site being in a karst geology	Low
A 100-year floodplain	Between 1 and 5 (mi.)
Did the release impact areas not on an exploration, development, production, or storage site	No

Remediation Plan	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
Requesting a remediation plan approval with this submission	Yes
Attach a comprehensive report demonstrating the lateral and vertical extents of soil contamination associated with the release have been determined, pursuant to 19.15.29.11 NMAC and 19.15.29.13 NMAC.	
Have the lateral and vertical extents of contamination been fully delineated	Yes
Was this release entirely contained within a lined containment area	No
Soil Contamination Sampling: (Provide the highest observable value for each, in milligrams per kilograms.)	
Chloride (EPA 300.0 or SM4500 Cl B)	5700
TPH (GRO+DRO+MRO) (EPA SW-846 Method 8015M)	2720
GRO+DRO (EPA SW-846 Method 8015M)	1900
BTEX (EPA SW-846 Method 8021B or 8260B)	0
Benzene (EPA SW-846 Method 8021B or 8260B)	0
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
On what estimated date will the remediation commence	06/12/2022
On what date will (or did) the final sampling or liner inspection occur	09/07/2023
On what date will (or was) the remediation complete(d)	09/07/2023
What is the estimated surface area (in square feet) that will be reclaimed	0
What is the estimated volume (in cubic yards) that will be reclaimed	0
What is the estimated surface area (in square feet) that will be remediated	911
What is the estimated volume (in cubic yards) that will be remediated	40
These estimated dates and measurements are recognized to be the best guess or calculation at the time of submission and may (be) change(d) over time as more remediation efforts are completed.	
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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QUESTIONS

Remediation Plan (continued)	
Please answer all the questions that apply or are indicated. This information must be provided to the appropriate district office no later than 90 days after the release discovery date.	
This remediation will (or is expected to) utilize the following processes to remediate / reduce contaminants:	
(Select all answers below that apply.)	
(Ex Situ) Excavation and **off-site** disposal (i.e. dig and haul, hydrovac, etc.)	Yes
Which OCD approved facility will be used for **off-site** disposal	R360 Artesia LLC LANDFARM [fEEM0112340644]
OR which OCD approved well (API) will be used for **off-site** disposal	*Not answered.*
OR is the **off-site** disposal site, to be used, out-of-state	*Not answered.*
OR is the **off-site** disposal site, to be used, an NMED facility	*Not answered.*
(Ex Situ) Excavation and **on-site** remediation (i.e. On-Site Land Farms)	*Not answered.*
(In Situ) Soil Vapor Extraction	*Not answered.*
(In Situ) Chemical processing (i.e. Soil Shredding, Potassium Permanganate, etc.)	*Not answered.*
(In Situ) Biological processing (i.e. Microbes / Fertilizer, etc.)	*Not answered.*
(In Situ) Physical processing (i.e. Soil Washing, Gypsum, Disking, etc.)	*Not answered.*
Ground Water Abatement pursuant to 19.15.30 NMAC	*Not answered.*
OTHER (Non-listed remedial process)	*Not answered.*
Per Subsection B of 19.15.29.11 NMAC unless the site characterization report includes completed efforts at remediation, the report must include a proposed remediation plan in accordance with 19.15.29.12 NMAC, which includes the anticipated timelines for beginning and completing the remediation.	
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.	
I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 06/25/2024
The OCD recognizes that proposed remediation measures may have to be minimally adjusted in accordance with the physical realities encountered during remediation. If the responsible party has any need to significantly deviate from the remediation plan proposed, then it should consult with the division to determine if another remediation plan submission is required.	

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QUESTIONS (continued)

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	Action Number: 357513
	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Deferral Requests Only *Only answer the questions in this group if seeking a deferral upon approval this submission. Each of the following items must be confirmed as part of any request for deferral of remediation.*	
Requesting a deferral of the remediation closure due date with the approval of this submission	No

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QUESTIONS (continued)

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QUESTIONS

Sampling Event Information	
Last sampling notification (C-141N) recorded	**304780**
Sampling date pursuant to Subparagraph (a) of Paragraph (1) of Subsection D of 19.15.29.12 NMAC	**09/07/2023**
What was the (estimated) number of samples that were to be gathered	**3**
What was the sampling surface area in square feet	**500**

Remediation Closure Request	
Only answer the questions in this group if seeking remediation closure for this release because all remediation steps have been completed.	
Requesting a remediation closure approval with this submission	Yes
Have the lateral and vertical extents of contamination been fully delineated	**Yes**
Was this release entirely contained within a lined containment area	**No**
All areas reasonably needed for production or subsequent drilling operations have been stabilized, returned to the sites existing grade, and have a soil cover that prevents ponding of water, minimizing dust and erosion	Yes
What was the total surface area (in square feet) remediated	712
What was the total volume (cubic yards) remediated	23
All areas not reasonably needed for production or subsequent drilling operations have been reclaimed to contain a minimum of four feet of non-waste contain earthen material with concentrations less than 600 mg/kg chlorides, 100 mg/kg TPH, 50 mg/kg BTEX, and 10 mg/kg Benzene	Yes
What was the total surface area (in square feet) reclaimed	712
What was the total volume (in cubic yards) reclaimed	23
Summarize any additional remediation activities not included by answers (above)	see report

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 (in .pdf format) 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.

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.

I hereby agree and sign off to the above statement	Name: Dale Woodall Title: EHS Professional Email: Dale.Woodall@dvn.com Date: 06/25/2024

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QUESTIONS (continued)

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	Action Type: [C-141] Remediation Closure Request C-141 (C-141-v-Closure)

QUESTIONS

Reclamation Report	
Only answer the questions in this group if all reclamation steps have been completed.	
Requesting a reclamation approval with this submission	No

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CONDITIONS

Action 357513

CONDITIONS

Operator:	OGRID:
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CONDITIONS

Created By	Condition	Condition Date
scwells	None	6/26/2024